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REVIEWED

By Mike Buchanan at 3:27 pm, Aug 17, 2023

April 10, 2020

Mr. Bradford Billings
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

**Re: 2019 Annual Groundwater Monitoring Report
G.L. Erwin "A&B" Federal NCT-2 Tank Battery
Lea County, New Mexico
Case No. 1R254, OGRID No. 4323**

Review of the 2019 Annual Groundwater Monitoring Report for G.L. Erwin Federal NCT-2 Tank Battery: **Content Satisfactory**

1. Continue to conduct groundwater monitoring and sampling.
2. Continue LNAPL Recovery efforts per report.
3. Submit the 2020, 2021 and 2022 annual groundwater reports by or before April each consecutive year.

Dear Mr. Billings:

Chevron Environmental Management Company (CEMC) submits herein to the New Mexico Oil Conservation Division (OCD) the *2019 Annual Groundwater Monitoring Report* for the G.L. Erwin "A&B" Federal NCT-2 Tank Battery located in Lea County, New Mexico. This report was prepared by Arcadis U.S., Inc. (Arcadis), on behalf of CEMC, to document results of groundwater monitoring activities conducted at the above referenced site in the 2019 calendar year.

If you have any questions regarding this submittal, please contact me at (832) 854-5620 or Scott Foord of Arcadis at (713) 953-4853.

Respectfully,

**Chevron Environmental Management Company
on behalf of
Chevron U.S.A. Inc.**

Adriane Gifford
Project Manager

Encl.

cc: Scott Foord, Arcadis



Chevron Environmental Management Company

2019 ANNUAL GROUNDWATER MONITORING REPORT

G.L. Erwin "A & B" NCT 2 Tank Battery
Section 35, Township 24 South, Range 37 East
Lea County, New Mexico

OGRID No. 4323

Case No. 1R254

April 2020

2019 ANNUAL GROUNDWATER MONITORING REPORT

**2019 ANNUAL
GROUNDWATER
MONITORING REPORT**

G.L. Erwin "A & B" NCT 2 Tank Battery



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Scott Foord, P.G.
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Our Ref.:

30006547

Date:

April 2020

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2019 ANNUAL GROUNDWATER MONITORING REPORT

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2019 ANNUAL GROUNDWATER MONITORING REPORT

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 2019 at the G.L. Erwin "A & B" NCT 2 Tank Battery (Site). Data presented in this report was collected during two semi-annual groundwater monitoring events conducted in June and November 2019.

The Site is located on Lea County Road J4, approximately three miles northeast of Jal, New Mexico, in the southwest quarter (SW/4) of the southeast quarter (SE/4), Section 35, Township 24 South, Range 37 East, Lea County, New Mexico. The Site's coordinates are latitude 32° 10' 11.9" N and longitude 103° 07' 46.9" W.

Land use in the vicinity of the Site included rangeland with indigenous grass, livestock ranching, and oil and gas production. The topography slopes gently southeast toward Monument Draw located approximately 1.5 miles east of the Site. A Site Location Map is presented as **Figure 1**. Additional Site background information is in **Appendix A**.

2019 ANNUAL GROUNDWATER MONITORING REPORT

2 GROUNDWATER MONITORING RESULTS

Groundwater at the Site is monitored semi-annually from a network of 36 wells, which include 34 monitoring wells, 1 water well and 1 recovery well. A Site Details Map is presented as **Figure 2**. Arcadis performed semi-annual groundwater sampling events on June 19, 2019, and November 20-22, 2019. Field monitoring methodologies are included in **Appendix B**.

2.1 Groundwater Gauging Data

Groundwater and light non-aqueous phase liquid (LNAPL) measurements collected during semi-annual monitoring events conducted in 2019 indicate:

- Groundwater elevations ranged from
 - 3,063.24 feet above mean sea level (ft AMSL) (MW-32) to 3,111.03 ft AMSL (MW-28) during the June 2019 gauging event, and
 - 3,063.25 ft AMSL (MW-32) to 3,110.94 ft AMSL (MW-28) during the November 2019 event.
- The groundwater elevations during the 2019 period appear to be consistent with historical levels, with groundwater flow generally to the south-southeast.
- Potentiometric elevation data for the sampling events are presented in **Table 1**. Groundwater potentiometric surface maps for June and November 2019 are presented on **Figure 3**;
- The calculated gradient was
 - 0.0155 feet/foot (ft/ft) for the June 2019 gauging event, and
 - 0.0131 ft/ft for the November 2019 gauging event.
- LNAPL was not detected during either the June or the November 2019 monitoring events.

2.2 2019 Groundwater Analytical Results

28 of the 36 wells were sampled at the Site during the June 2019 sampling event. 33 of the 36 wells were sampled during the November 2019 sampling event. Consistent with historical results, monitoring wells MW-10, MW-11, MW-18, MW-27, MW-31, and MW-32, and water well WW-1 did not have sufficient water volume for sampling during the June 2019 event, and monitoring wells MW-18 and MW-27 did not have sufficient water volume for sampling during the November 2019 event. Recovery well RW-1 was not sampled in either event as the recovery system is currently not operational. Groundwater analytical results for chloride and total dissolved solids (TDS) were compared to the New Mexico Environment Department Water Quality Control Commission (NMWQCC) Groundwater Standards. A summary of the groundwater sample analytical results from the June and November 2019 events are presented in **Table 2**.

A cumulative summary table of groundwater analytical results and potentiometric elevation data obtained for the Site from 1998 through 2019 is presented in **Appendices C and E**, respectively. Copies of the certified analytical reports and chain-of-custody documentation from Eurofins TestAmerica, Inc. are provided in **Appendix D**.

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Isoconcentration maps for chloride for the June and November 2019 sampling events are presented on **Figure 4**. The isoconcentration maps for TDS for the June and November 2019 sampling events are presented on **Figure 5**. The isoconcentration maps for sulfate for the June and November 2019 sampling events are presented on **Figure 6**. The groundwater analytical results are further summarized below.

2.2.1 Chloride

Chloride concentrations exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) as follows:

- June Sampling Event
 - 24 of the 28 sampled wells (MW-1 through MW-6, MW-8, MW-12 through MW-17, MW-19, MW-20, MW-22 through MW-26, MW-28 through MW-30 and the southwest water well).
 - Chloride concentrations exceeding the NMWQCC standard ranged from 335 mg/L at monitoring well MW-6 up to 10,700 mg/L at monitoring well MW-14.
- November Sampling Event
 - 30 of the 33 wells sampled (MW-1 through MW-6, MW-8 through MW-17, MW-19, MW-20, MW-22 through MW-26, MW-28 through MW-32, WW-1, and the southwest water well).
 - Concentrations exceeding the NMWQCC standard ranged from 259 mg/L (WW-1) up to 13,400 mg/L (MW-14).

2.2.2 TDS

TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L as follows:

- June Sampling Event
 - 25 of the 28 sampled wells (MW-1 through MW-6, MW-8, MW-12 through MW-17, MW-19 through MW-26, MW-28 through MW-30 and the southwest water well).
 - TDS concentrations exceeding the NMWQCC standard ranged from 1,030 mg/L (MW-21) up to 26,800 mg/L (MW-30).
- November Sampling Event
 - 31 of the 33 wells sampled (MW-1 through MW-6, MW-8 through MW-17, MW-19 through MW-26, MW-28 through MW-32, WW-1, and the southwest water well).
 - Concentrations detected ranged from 1,040 mg/L (MW-21) up to 28,000 mg/L (MW-14).

2.2.3 Sulfate

Groundwater samples were not analyzed for sulfate during the June 2019 groundwater sampling event.

Sulfate concentrations exceeded the NMWQCC standard of 600 mg/L as follows:

- November Sampling Event
 - 3 of 33 wells (MW-14, MW-19, and MW-30)

2019 ANNUAL GROUNDWATER MONITORING REPORT

- Concentrations detected ranged from 627 mg/L (MW-30) up to 1,460 mg/L (MW-14).

2.2.4 Fluoride

Groundwater samples were not analyzed for fluoride during the June 2019 groundwater sampling event.

Fluoride concentrations detected exceeded the NMWQCC standard of 1.6 mg/L as follows:

- November Sampling Event
 - 21 of 33 wells (MW-3 through MW-8, MW-10, MW-14 through MW-17, MW-19, MW-21 through MW-23, MW-25, MW-28 through MW-30, WW-1, and the southwest water well).
 - Concentrations detected ranged from 1.61 mg/L (WW-1) up to 25.1 mg/L (MW-14).

2019 ANNUAL GROUNDWATER MONITORING REPORT

3 SUMMARY

In summary, the semi-annual monitoring activities conducted at the Site in June and November 2019 indicate the following:

- 34 monitoring wells, 1 water well, and 1 recovery well on-Site were gauged during both events;
- 27 monitoring wells and 1 water well were sampled during the June 2019 event, and 32 monitoring wells and 1 water well were sampled during the November 2019 event;
- Potentiometric surface conditions were consistent with historical results, with groundwater flow to the south-southeast.

Groundwater sample analytical results reported for the June 2019 and November 2019 sampling events indicate:

- Chloride exceeded the NMWQCC standard in
 - 24 wells sampled during the June 2019 event, and
 - 30 wells sampled during the November 2019 event;
- TDS exceeded the NMWQCC standard in
 - 25 wells sampled during the June 2019 event, and
 - 31 wells sampled during the November 2019 event;
- Sulfate exceeded the NMWQCC standard in
 - 3 wells sampled during the November 2019 event;
- Fluoride exceeded the NMWQCC standard in
 - 21 wells sampled during the November 2019.
- Chloride and TDS concentrations have remained relatively stable in 16 out of 32 wells (MW-1, MW-2, MW-4, MW-6, MW-9, MW-13, MW-15, MW-16, MW-17, MW-19, MW-20, MW-24, MW-26, MW-28, MW-31, and the Southwest Water Well).
- Chloride concentrations have exhibited a downward trend in wells MW-3, MW-5, MW-7, MW-8, MW-11, and MW-16.
- Chloride concentrations exhibited an upward trend in wells MW-10, MW-14, MW-21, MW-25, MW-29, and MW-30; however, have remained relatively consistent with historical data trends in wells MW-12, MW-22, MW-23, MW-28, MW-32, MW-W, and WW-1.
- TDS concentrations have exhibited a downward trend in well MW-7 and the West Water Well.
- TDS concentrations have exhibited an upward trend in wells MW-10, MW-12, MW-14, MW-21, MW-22, and WW- 1; however, have remained relatively consistent with historical data trends in wells MW-3, MW-5, MW-8, MW-11, MW-25, MW-28, MW-29, MW-30, and RW-1.

TABLES

Table 1
2019 Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A and B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC elev ¹	Well Diameter (inches)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-01	3,164.14	2	55'-85'	6/11/19	81.76	61.54	3102.60
				11/21/19	80.70	60.73	3103.41
MW-02	3,162.33	2	50'-70'	6/11/19	71.80	61.59	3100.74
				11/21/19	71.68	60.74	3101.59
MW-03	3,166.49	2	50'-70'	6/11/19	73.05	64.26	3102.23
				11/21/19	73.30	64.46	3102.03
MW-04	3,168.08	2	50'-70'	6/11/19	73.08	63.10	3104.98
				11/21/19	73.03	63.25	3104.83
MW-05	3,163.19	2	50'-70'	6/11/19	72.65	59.53	3103.66
				11/21/19	72.51	59.75	3103.44
MW-06	3,166.60	2	59'-74'	6/11/19	76.79	67.17	3099.43
				11/21/19	76.72	67.44	3099.16
MW-07	3,164.43	2	55'-70'	6/11/19	71.69	66.75	3097.68
				11/21/19	71.63	66.93	3097.50
MW-08	3,162.05	2	50'-70'	6/11/19	73.41	67.71	3094.34
				11/22/19	73.47	67.81	3094.24
MW-09	3,169.70	2	55'-70'	6/11/19	68.44	62.87	3106.83
				11/21/19	68.26	63.17	3106.53
MW-10	3,173.45	2	54'-69'	6/11/19	72.06	69.83	3103.62
				11/21/19	72.02	69.94	3103.51
MW-11	3,170.66	2	58'-73'	6/11/19	75.59	74.85	3095.81
				11/22/19	75.60	74.93	3095.73
MW-12	3,154.93	2	59'-74'	6/11/19	77.58	72.61	3082.32
				11/22/19	77.49	72.66	3082.27
MW-13	3,157.36	2	53'-68'	6/11/19	70.39	66.70	3090.66
				11/21/19	70.40	66.60	3090.76
MW-14	3,154.54	2	79.5'-89.5'	6/11/19	90.02	71.75	3082.79
				11/21/19	89.97	71.70	3082.84
MW-15	3,154.94	2	64.5'-84.5'	6/11/19	87.36	80.17	3074.77
				11/22/19	87.37	80.60	3074.34
MW-16	3,159.66	2	59.5'-74.5'	6/11/19	74.41	68.05	3091.61
				11/22/19	74.41	68.25	3091.41
MW-17	3,160.72	2	57'-77'	6/11/19	77.03	69.16	3091.56
				11/22/19	76.94	69.25	3091.47
MW-18	3,153.80	2	54.5'-74.5'	6/11/19	78.47	78.45	3075.35
				11/21/19	78.50	78.44	3075.36
MW-19	3,150.26	2	82.5'-102.5'	6/11/19	104.68	73.08	3077.18
				11/21/19	104.55	73.01	3077.25
MW-20	3,153.99	2	72.5'-92.5'	6/11/19	88.89	82.72	3071.27
				11/22/19	88.83	82.79	3071.20
MW-21	3,147.45	2	67'-97'	6/11/19	96.29	73.30	3074.15
				11/21/19	96.17	73.60	3073.85
MW-22	3,172.45	2	46.5'-66.5'	6/11/19	67.93	63.66	3108.79
				11/21/19	67.79	63.87	3108.58
MW-23	3,155.99	2	70-100'	6/11/19	101.35	91.08	3064.91
				11/22/19	101.52	91.11	3064.88
MW-24	3,147.61	2	30-60'	6/11/19	62.74	49.44	3098.17
				11/21/19	62.63	49.52	3098.09

Table 1
2019 Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A and B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC elev ¹	Well Diameter (inches)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-25	3,172.85	2	65-95'	6/11/19	95.50	78.40	3094.45
				11/22/19	94.30	78.50	3094.35
MW-26	3,174.63	2	55-75'	6/11/19	75.75	64.22	3110.41
				11/20/19	75.73	64.30	3110.33
MW-27	3,151.17	2	25-45'	6/11/19	48.57	DRY	
				11/20/19	48.58	DRY	
MW-28	3,175.60	2	---	6/11/19	74.14	64.57	3111.03
				11/20/19	72.90	64.66	3110.94
MW-29	3,169.46	2	---	6/11/19	78.62	66.70	3102.76
				11/21/19	78.60	66.83	3102.63
MW-30	3,152.15	2	---	6/11/19	73.95	68.44	3083.71
				11/21/19	73.70	68.54	3083.61
MW-31	3,173.79	2	---	6/11/19	83.75	80.21	3093.58
				11/22/19	82.75	80.33	3093.46
MW-32	3,149.08	2	---	6/11/19	87.85	85.84	3063.24
				11/21/19	87.00	85.83	3063.25
WW-1	3,172.12	2	---	6/11/19	180.72	69.69	3102.43
				11/22/19	187.80	69.78	3102.34
West MW	3,166.87	2	---	6/11/19	67.31	61.89	3104.98
				11/21/19	67.30	61.80	3105.07
Southwest MW	3,166.96	2	---	6/11/19	70.46	62.28	3104.68
				11/21/19	70.91	62.42	3104.54
RW-1	3,163.52	2	53'-73'	6/11/19	Not Gauged	61.46	3102.06
				11/21/19	Not Gauged		

Notes:

- 1 - Top of Casing
- 2 - Mean Sea Level
- 3 - Below ground surface
- 4 -NG - Not Gauged due to presence of recovery pump

All depths were measured from the TOC

Professional Surveys were conducted by Piper Surveying Company in February and July 1998, October 2001
 October 2003 and December 2004

Professional Surveys were conducted by West Company in November 2011, June 2012, and August 2017.

Table 2

2019 Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A and B" Federal NCT-2 Tank Battery
SW/4, SE/4, Section 35, Township 24 South, Range 37 East
Lea County, New Mexico



Monitoring Well ID	Duplicate Sample I.D.	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)			250	1.6	600	1,000	NA	NA
MW-1		6/19/2019	412	---	---	1,340	---	---
		11/25/2019	470	1.42	89.50	1,200	---	---
MW-2		6/19/2019	726	---	---	1,910	---	---
		11/25/2019	525	1.17	210.00	1,210	---	---
MW-3		6/19/2019	521	---	---	1,250	---	---
		11/25/2019	486	3.43	202.00	1,540	---	---
MW-4		6/19/2019	2,550	---	---	6,390	---	---
		11/24/2019	1,180	4.85	251.00	2,090	---	---
MW-5		6/19/2019	464	---	---	1,360	---	---
		11/24/2019	289	1.77	193.00	1,120	---	---
MW-6		6/19/2019	335	---	---	1,250	---	---
		11/25/2019	487	3.55	186.00	1,500	---	---
MW-7		6/19/2019	147	---	---	806	---	---
		11/25/2019	221	1.67	134.00	780	---	---
MW-8		6/19/2019	353	---	---	1,250	---	---
		11/25/2019	350	3.17	168.00	1,310	---	---
MW-9		6/19/2019	205	---	---	988	---	---
		11/25/2019	274	1.29	156.00	1,040	---	---
MW-10		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/25/2019	3,040	7.50	336.00	7,510	---	---
MW-11		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/24/2019	816	1.46	269.00	6,390	---	---
MW-12		6/19/2019	1,920	---	---	6,870	---	---
		11/25/2019	1,950	<0.601	82.20	6,270	---	---
MW-13		6/19/2019	817	---	---	3,000	---	---
		11/25/2019	913	0.89	199.00	2,560	---	---
MW-14		6/19/2019	10,700	---	---	26,500	---	---
		11/25/2019	13,400	25.10	1,460.00	28,000	---	---
MW-15		6/19/2019	626	---	---	1,050	---	---
		11/25/2019	603	2.84	72.70	1,940	---	---
MW-16		6/19/2019	365	---	---	1,060	---	---
		11/25/2019	344	2.13	98.30	1,130	---	---
MW-17		6/19/2019	367	---	---	1,050	---	---
		11/25/2019	405	1.93	106.00	1,380	---	---
MW-18		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/25/2019	Not Sampled, Insufficient Water in Well					
MW-19		6/19/2019	2,990	---	---	9,720	---	---
		11/25/2019	3,510	2.95	740.00	8,780	---	---
MW-20		6/19/2019	1,180	---	---	3,420	---	---
		11/25/2019	1,120	<0.601	82.60	3,660	---	---
MW-21		6/19/2019	212	---	---	1,030	---	---
		11/25/2019	204	2.25	213.00	1,040	---	---
MW-22		6/19/2019	3,070	---	---	9,460	---	---
		11/25/2019	4,040	2.16	399.00	8,840	---	---
MW-23		6/19/2019	359	---	---	1,330	---	---
		11/25/2019	341	1.77	69.80	1,190	---	---
MW-24		6/19/2019	1,660	---	---	6,500	---	---
		11/25/2019	1,710	<0.601	242.00	5,510	---	---
MW-25		6/19/2019	2,310	---	---	7,160	---	---
		11/24/2019	890	1.77	127.00	5,790	---	---

Table 2 - 2019 Analytical Data

Table 2

2019 Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A and B" Federal NCT-2 Tank Battery
SW/4, SE/4, Section 35, Township 24 South, Range 37 East
Lea County, New Mexico



Monitoring Well ID	Duplicate Sample I.D.	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)			250	1.6	600	1,000	NA	NA
MW-26		6/19/2019	685	---	---	1,980	---	---
		11/25/2019	789	0.79	218.00	1,840	---	---
MW-27		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/25/2019	Not Sampled, Insufficient Water in Well					
MW-28	Dup-1	6/19/2019	4,820	---	---	14,000	---	---
		6/19/2019	9,750	---	---	22,000	---	---
		11/25/2019	4,720	4.66	419.00	12,000	---	---
MW-29	Dup-2	6/19/2019	2,770	---	---	8,320	---	---
		6/19/2019	2,520	---	---	6,160	---	---
		11/25/2019	1,120	5.58	164.00	4,920	---	---
MW-30	Dup-1	6/19/2019	10,500	---	---	26,800	---	---
		11/25/2019	9,540	3.01	627.00	18,700	---	---
		11/25/2019	10,600	17.40	657.00	16,900	---	---
MW-31		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/24/2019	543	1.55	139.00	1,600	---	---
MW-32		6/19/2019	Not Sampled, Insufficient Water in Well					
		11/25/2019	1,440	<0.601	191.00	4,340	---	---
WW-1	Dup-2	6/19/2019	Not Sampled, No Hydrosleve					
		11/26/2019	263	1.61	143.00	1,050	---	---
		11/26/2019	259	1.58	142.00	1,140	---	---
West		6/19/2019	117	---	---	726	---	---
		11/24/2019	124	1.30	153.00	728	---	---
Southwest		6/19/2019	919	---	---	2,460	---	---
		11/24/2019	772	2.22	260.00	2,050	---	---
RW-1		6/19/2019	Not Sampled					
		11/25/2019	Not Sampled					

Notes

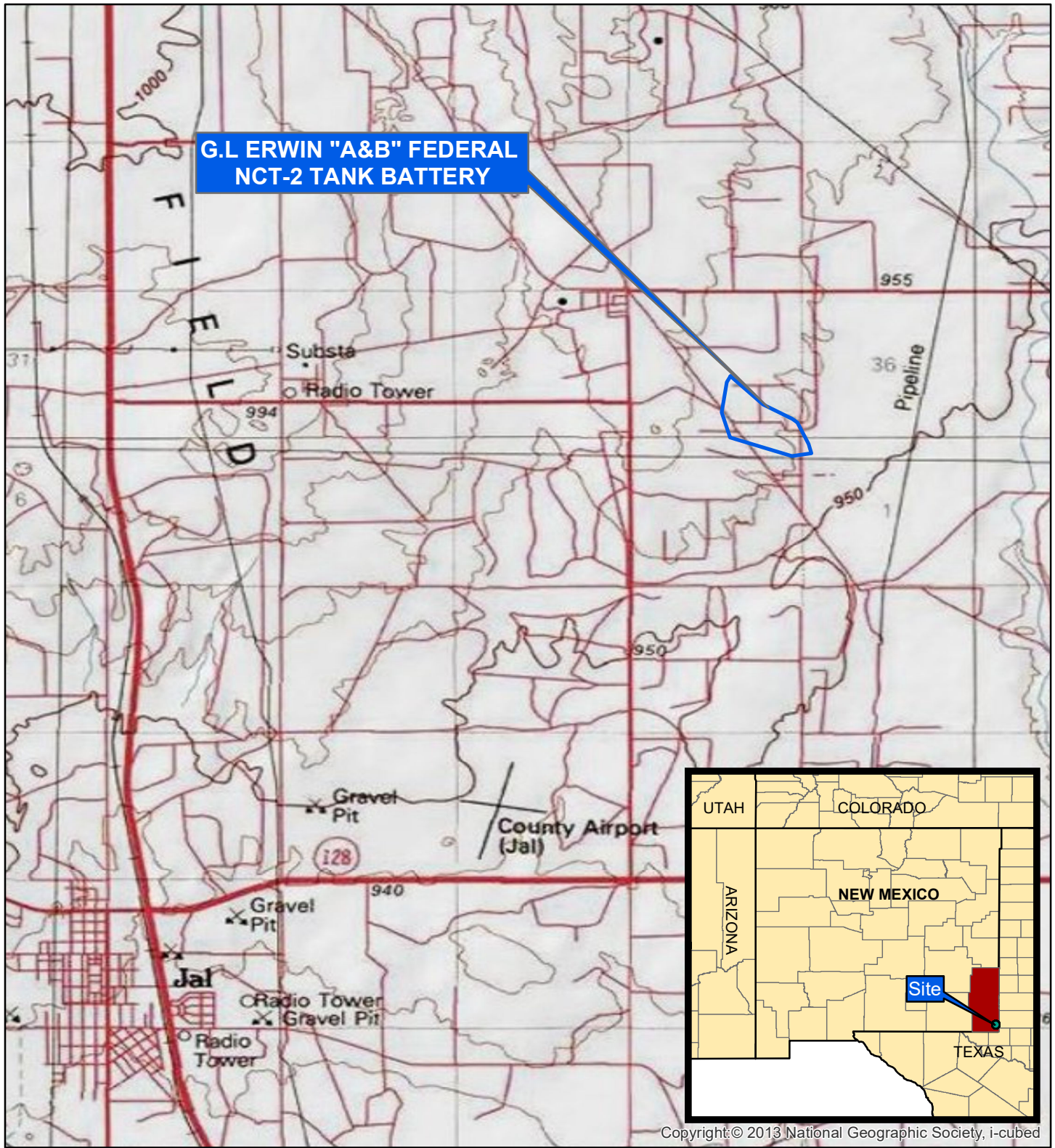
1. mg/L: Milligrams per liter
2. <: Concentration below test method detection limit
3. -: No data available
4. NS: Not Sampled
5. RW: Recovery well
6. WW: Water well
7. Detected concentrations exceeding the NMWQCC standard are bolded and colored
8. DUP: Duplicate Sample
9. J: Estimated Concentration
10. B: This Qualifier indicates that the analyte is an estimated value between the RL and the MDL

11. All analyses prior to 10/14/02 conducted by Trace Analysis, Inc., Lubbock, TX
12. Analyses from 10/14/02 conducted by Environmental Lab of Texas, Odessa, TX
13. Analyses from 5/30/03 through 08/2005 conducted by Trace Analysis Inc., Lubbock, TX
14. Analyses from 02/2006 through 08/2007, conducted by Pace Analytical, St. Rose, LA and Greenbay, WI Laboratories
15. Analyses from 02/2008 through 08/2009, conducted by Test America, Houston, TX
16. Analyses from 02/2010 through 10/2013, conducted by ALS Environmental, Houston, TX
17. Analyses from 04/2014 to present conducted by Xenco Laboratories, Odessa, TX
18. U: Not detected above the associated reporting limit
19. NA: Not applicable

FIGURES



Document Path: \\arcadis-us\office\data\Houston-TX\EN\Chevron\Texaco TX\HES Transfer\04 Field Investigations\2019\6 - Annual GWMR\GL Erwin\GIS - GL Erwin\Figure 1 Site Location Map



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Legend

 Site Boundary

- Notes:
1. Datum: D_WGS_1984
 2. Source: United States Geological Survey 7.5 Minute Quadrangle Map



0 2,500 5,000 10,000
Feet

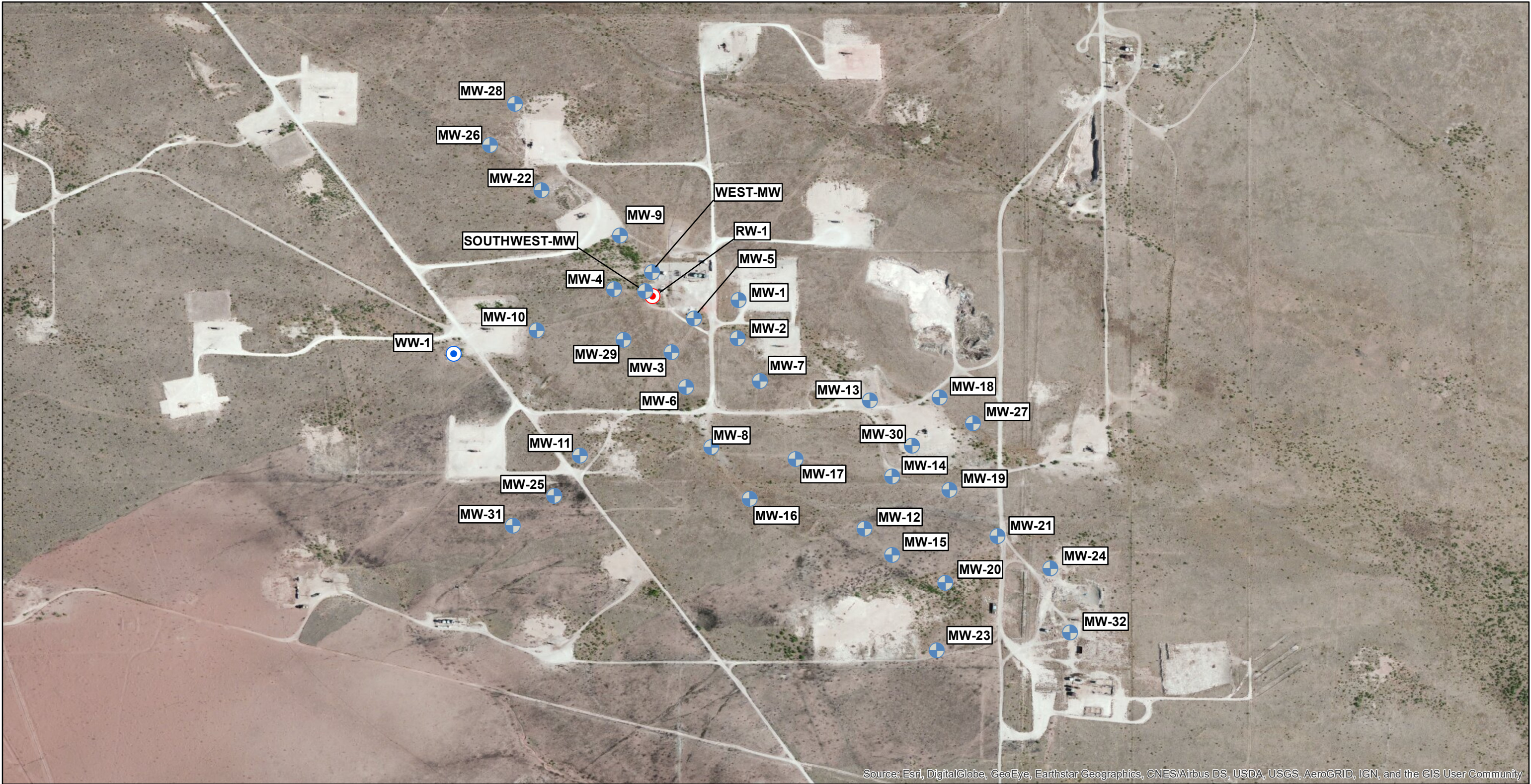
Chevron Environmental Management Company
G.L. Erwin "A&B" Federal NCT-2 Tank Battery
Lea County, New Mexico

SITE LOCATION MAP



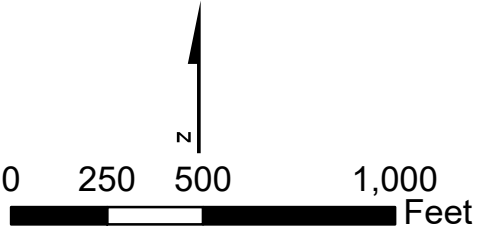
FIGURE
1

Document Path: \\arcadis-us\officedata\Houston-TX\ENV\Chevron\Texaco TX\HES Transfer\04 Field Investigations\2019\6 - Annual GWMR\GL Erwin\GIS - GL Erwin\Figure 6 Sulfate Map Combined 12.30.2019.mxd



- Legend**
- Monitoring Well Location
 - Water Well Location
 - Recovery Well Location

Note: Datum: D_WGS_1984



Chevron Environmental Management Company
G.L. Erwin "A&B" Federal NCT-2 Tank Battery
Lea County, New Mexico

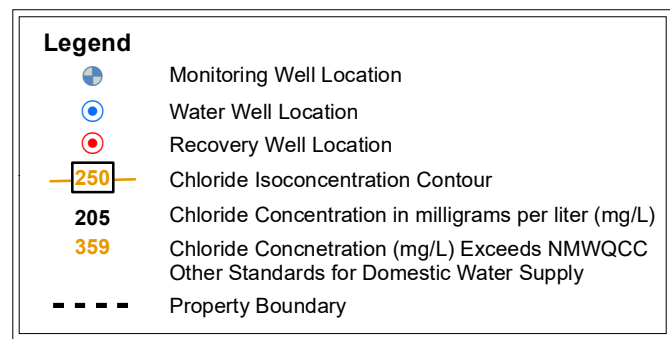
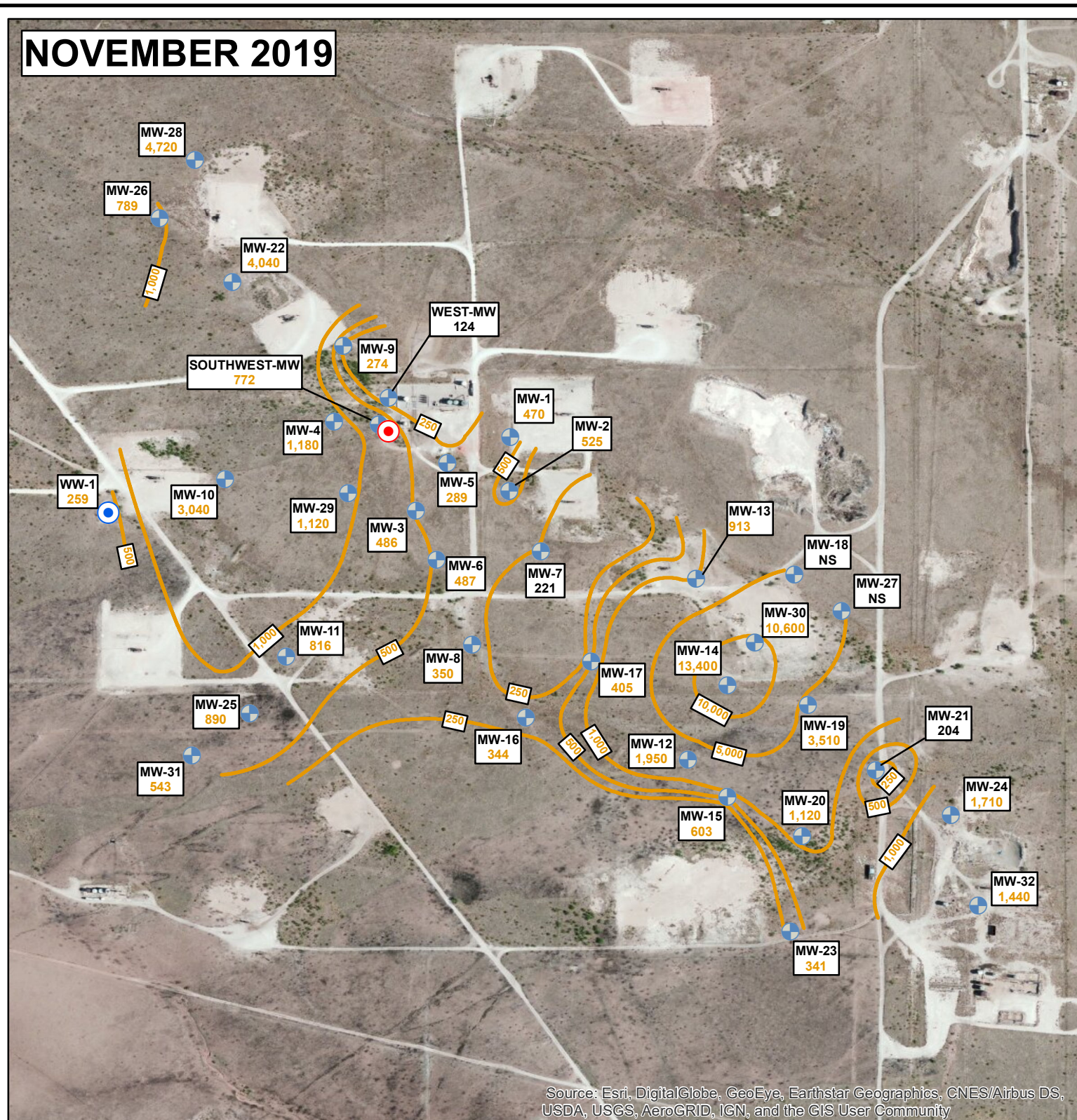
SITE DETAILS MAP



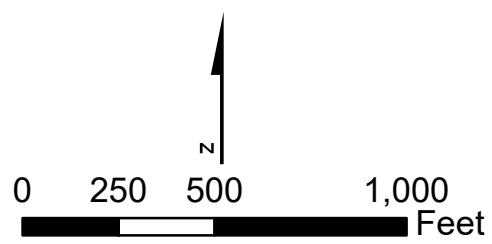
ARCADIS

FIGURE
2





Notes:
1. Datum: D_WGS_1984
2. Site Location: 32.16974, -103.12893
3. NS: Not Sampled



Chevron Environmental Management Company
G.L. Erwin "A&B" Federal NCT-2 Tank Battery
Lea County, New Mexico

SEMI-ANNUAL CHLORIDE ISOCONCENTRATION MAP 2019



FIGURE 4

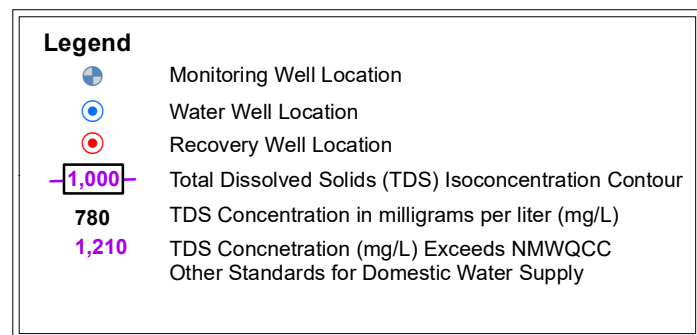
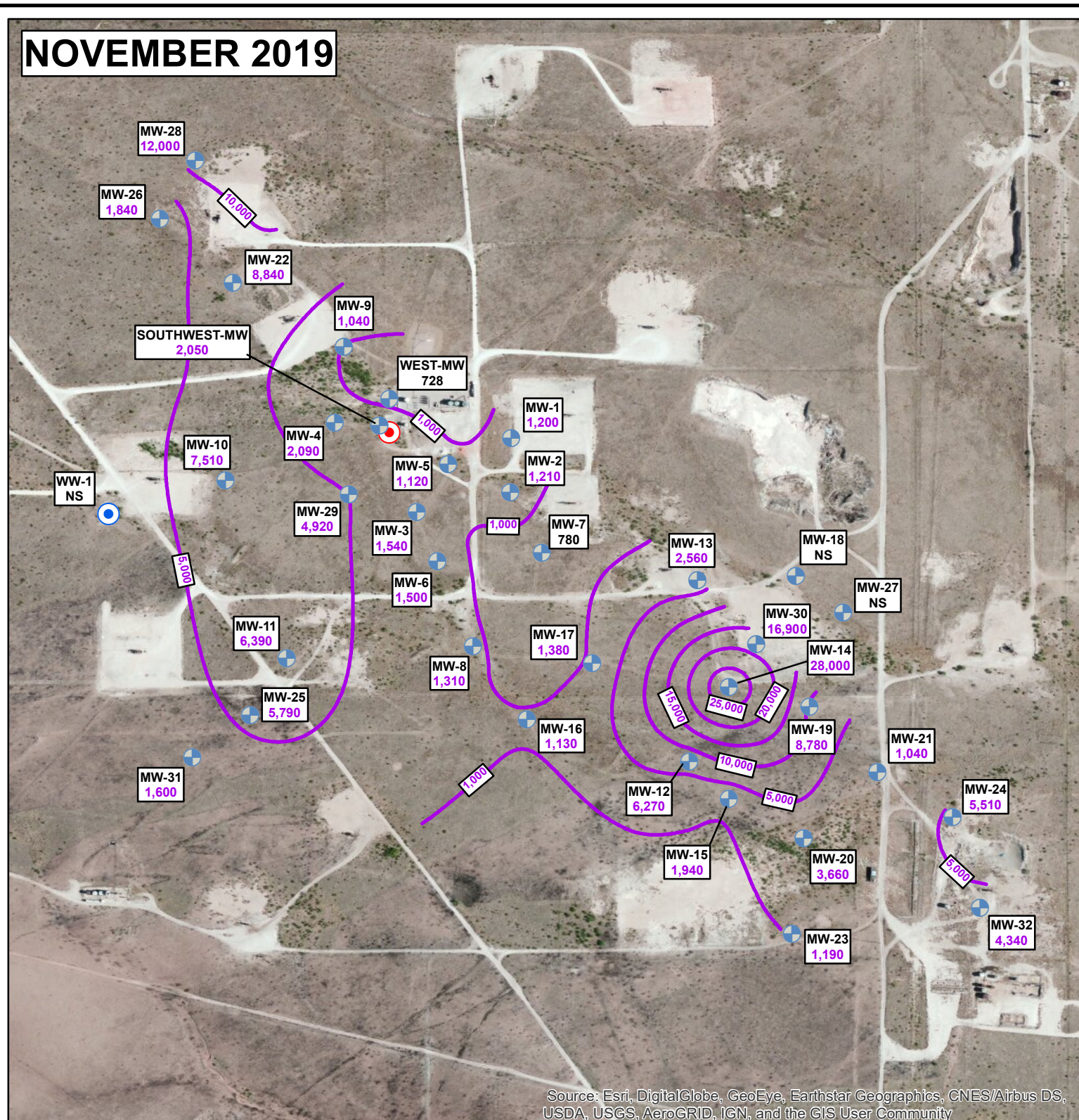
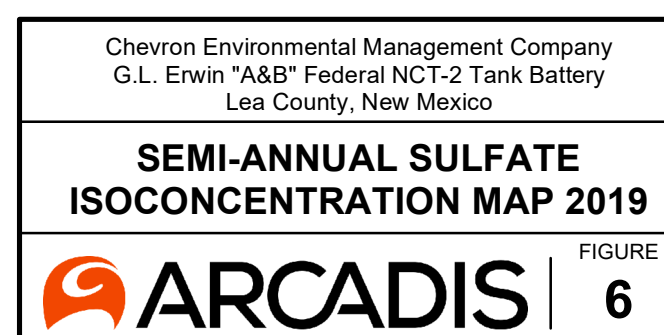
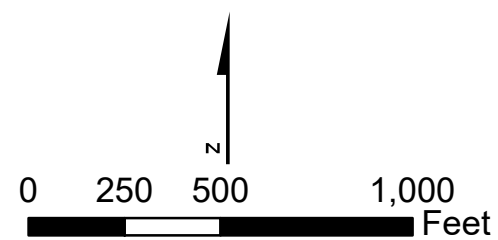
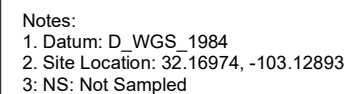
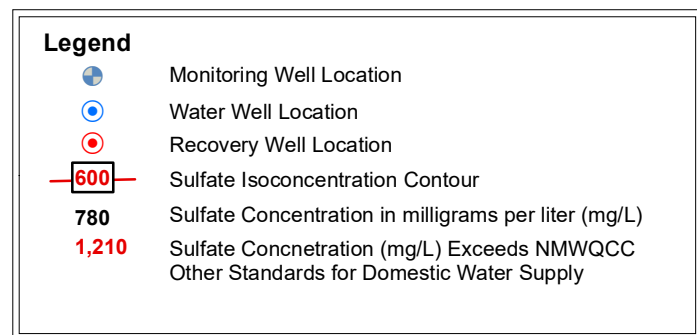
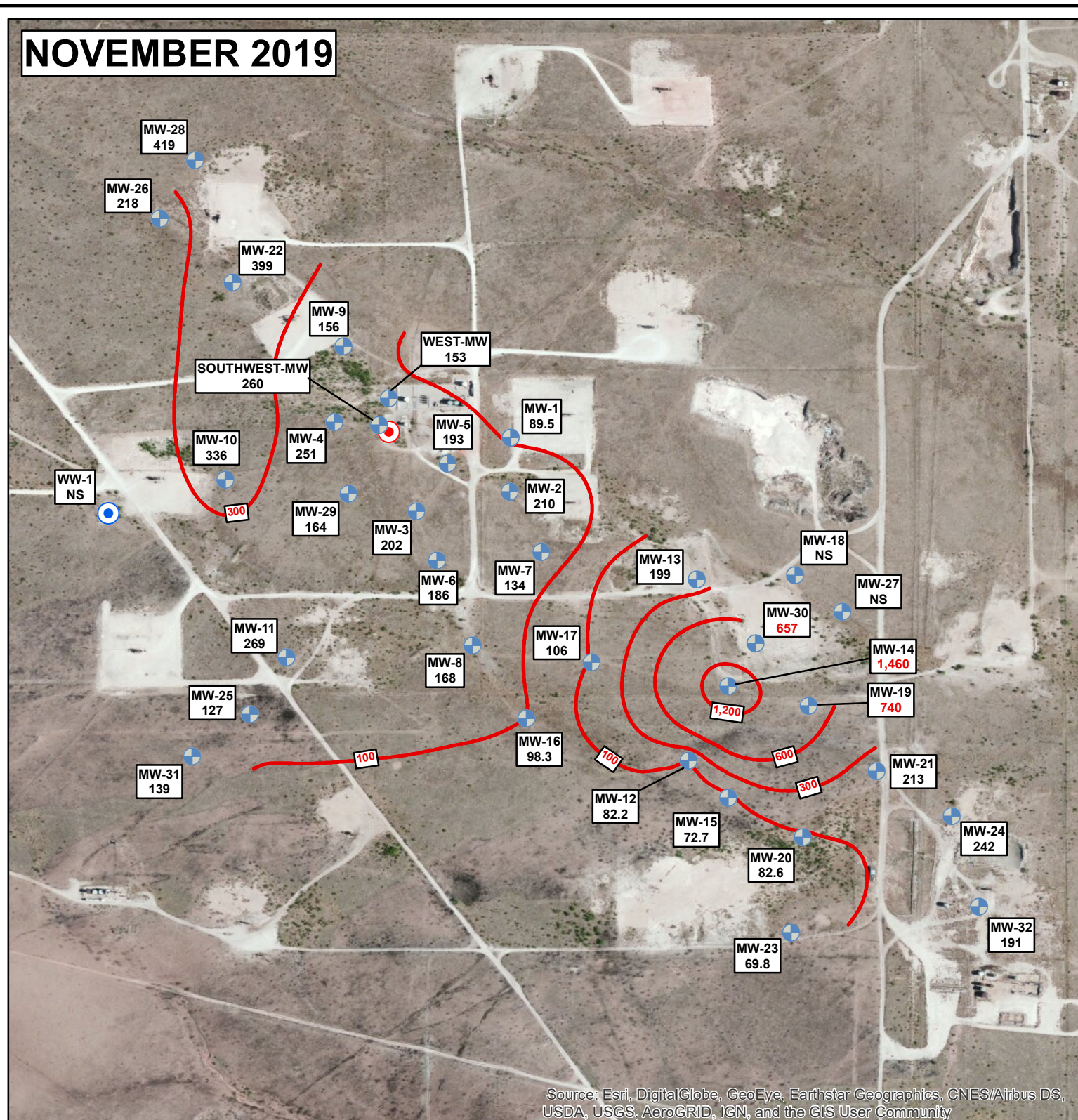


FIGURE 5



APPENDIX A

Site Background



REGULATORY BACKGROUND

Site assessment activities were initiated in September 1993 when Environmental Spill Control, Inc. (ESCI), of Hobbs, New Mexico, performed a subsurface investigation in and around an unlined earthen produced water emergency pit, which was located adjacent to the west edge of the Site. During the investigation, 16 boreholes, ranging from 30 to 100 feet below ground surface (ft bgs), were installed to evaluate soil and groundwater at the Site. Analytical results indicated hydrocarbon impacts to soil and chloride impacts to groundwater. In September 1994, ESCI excavated the former pit to approximately 62 ft bgs and removed approximately 40,000 cubic yards of hydrocarbon-impacted soil. The excavation was lined from a depth of 62.5 feet to 55.0 feet with a mixture of clean sand and clay and was backfilled with clean soil to the surface. ESCI submitted the pit closure report to Texaco Exploration and Production, Inc. (Texaco) in October 1994.

In February 1995, Texaco submitted a work plan to the New Mexico Oil Conservation Division (NMOCD) to assess affected groundwater at the Site. On March 28, 1995, the work plan was conditionally approved by the NMOCD. Two monitoring wells (west and southwest) were installed and sampled in 1997. Analytical results showed that groundwater chloride concentrations were at or above the New Mexico Water Quality Control Commission (NMWQCC) Standards. In January 1998, Highlander Environmental Corp. (Highlander) performed an electromagnetic (EM-34) terrain conductivity survey. Additionally, Highlander installed eight monitoring wells (MW-1 through MW-8) from February 1998 to January 1999 to further evaluate the extent of affected groundwater. From September 2001 through November 2004, 12 additional monitoring wells (MW-9 through MW-20) were installed under the direction of Larson and Associates, Inc. (LA). In 2004, Texaco submitted a corrective action plan to the New Mexico Office of the State Engineer (NMOSE) to recover groundwater from the recovery well (RW-1). On September 9, 2004, the NMOSE issued Permit CP 00886 to divert underground waters from recovery well RW-1. An allocation of 6.5 acre-feet (ac-ft.) per annum was granted by the NMOSE in the permit. In September 2006, a total fluids groundwater recovery system was installed at RW-1 under GHD's (formerly Conestoga-Rovers & Associates) supervision. At the request of the NMOCD, two groundwater monitoring wells (MW-21 and MW-22) were installed on November 19, 2007, to further evaluate the extent of affected groundwater. Additional monitoring wells (MW-23 and MW-24) were installed to the southeast of the Site on October 10 through 11, 2011, and three monitoring wells (MW-25, MW-26, and MW-27) were installed on April 2 through 3, 2012. In July 2017, five additional monitoring wells (MW-28, MW-29, MW-30, MW-31, and MW-32) were installed to provide additional delineation for the groundwater impacts at the Site.

Semi-annual groundwater monitoring activities and annual reporting to the NMOCD for this Site have been performed by GHD since 2005. Additionally, GHD conducted bi-weekly operation and maintenance (O&M) activities on the groundwater recovery system at the Site from 2007 to 2016.

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 have been completed in accordance with guidance outline by the NMOCD Guidelines for Remediation of

Leaks, Spills, and Releases (August 13, 1993). These guidelines require remediation of four constituents in groundwater to the NMWQCC human health standards 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	600

Note: mg/L = milligrams per liter

The original analyte list included carbonate alkalinity, bicarbonate alkalinity, total alkalinity, nitrate-N, calcium, magnesium, potassium, sodium, chloride, 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 chloride, TDS, fluoride, and sulfate only (all constituents associated with produced water). No wells were eliminated from the monitoring program.

The New Mexico Office of the State Engineer (NMOSE) governs water usage in the State of New Mexico. An application for a permit to appropriate groundwater was submitted to the NMOSE and was approved in September 2004. Usage of groundwater for remediation purposes was granted by the NMOSE under well permit CP 00886 for a total of 6.5 ac-ft. per annum from recovery well RW-1. In accordance with the permit, quarterly NMOSE Meter Reading Forms for January, June, September, and December 2019 were submitted to the NMOSE. Due to an environmental consulting firm transition from GHD to Arcadis, GHD collected and submitted the meter reading form for January and Arcadis collected and submitted the meter reading forms for June, September and December 2019. The recovery system has been shut down since April 15, 2016, so the forms reported no discharge for each quarter of 2018. Copies of the forms are provided in the *2018 Annual Groundwater Monitoring Report* dated January 3, 2019.

REMEDIATION SYSTEM OPERATION

A total fluids groundwater recovery system was installed at RW-1 in September 2006 and operated from 2006 to 2016.

Due to low recovery rates and no noticeable decrease in the chloride concentration levels, the recovery system was determined to be ineffective. Additionally, the system continued to have operational issues and was shut down in April 2016. In a meeting between Chevron and the NMOCD on October 26, 2016, the NMOCD concurred with CEMC's decision to discontinue operation of the groundwater recovery system. Records show that approximately 1,226,000 gallons of groundwater were recovered by the system since operations began in 2006. The estimated cumulative recovery volumes, including the average yearly and cumulative pumping rates, through April 2016 are provided below:

Year	Gallons Recovered	Average Gallons per Minute
2006-2007	15,288	0.03
2008	167,832	0.32
2009	121, 296	0.23
2010	195,237	0.37
2011	Not in operation	
2012	92,394	0.18
2013	185,366	0.35
2014	207,649	0.40
2015	240,729	0.46
2016 (through 4/4/16)	53,172	0.39
Cumulative Totals	1,225,791	0.28

GEOLOGY/HYDROGEOLOGY ASSESSMENT

Site Setting

The Site is located on Lea County Road J4, approximately three miles northeast of Jal, New Mexico, in the southwest quarter (SW/4) of the southeast quarter (SE/4), Section 35, Township 24 South, Range 37 East, Lea County, New Mexico. The Site's coordinates are latitude 32° 10' 11.9" N and longitude 103° 07' 46.9" W. The Site is situated at an elevation of approximately 3,165 feet above mean sea level (ft AMSL).

Land use in the vicinity of the Site included rangeland with indigenous grass, livestock ranching, and oil and gas production. The topography slopes gently southeast toward Monument Draw located approximately 1.5 miles east of the Site.

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 is underlain by the unconsolidated and lithified sediments (silt and fine-grained sand with caliche layers) of the Ogallala formation consisting of Tertiary-aged sediments of sand, clay, and fluvial gravel. The gravel was not found in several borings drilled in the southern portion of the Site. The Tertiary-aged sediments are underlain by the Triassic-aged Dockum Group shale ("red beds").

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 49 to 91ft bgs, based on the groundwater monitoring event conducted in June/November 2019. The saturated thickness of the unconfined aquifer ranges from approximately 13 to 118 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.

At the Site, the local groundwater flow direction trends to the south-southeast with an average horizontal hydraulic gradient of approximately 0.0143 feet per foot (ft/ft), as presented in the attached figures. The south-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 B

Field Methodology and Documentation

FIELD METHODOLOGY

Prior to sampling, static fluid water levels were measured with an electronic interface probe to the nearest hundredth of a foot and recorded. In addition, a conductivity probe was used to record the conductivity levels every 2 feet in each well to evaluate the vertical distribution of chloride-affected groundwater. After recording conductivity levels, discrete samples were collected at the interval of highest conductivity using a Hydrasleeve™. Geochemical water quality parameters (pH, temperature, and conductivity) were recorded at the sampling depth. All non-disposable groundwater sampling equipment was thoroughly decontaminated between measurements to prevent possible cross-contamination between wells. Laboratory-supplied sample containers were filled directly from the Hydrasleeve™.

Groundwater samples were placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40°F). The coolers were sealed for shipment with proper chain-of-custody documentation and shipped to Eurofins TestAmerica, located in Houston, Texas, for analysis of chloride, fluoride and sulfate by Environmental Protection Agency (EPA) Method 300.0, and total dissolved solids (TDS) by SM 2540C.

Gauging Form

HES Transfer Site Name: G.L. Erwin

Lea County, New Mexico

Monitoring Well ID	Date Gauged	DTW (ft btoc)	Total Depth (ft btoc)	Notes
MW-1	06/11/19	61.54	81.76	
MW-2	06/11/19	61.59	71.80	
MW-3	06/11/19	64.26	73.05	
MW-4	06/11/19	63.16	73.08	water in casing.
MW-5	06/11/19	59.53	72.65	
MW-6	06/11/19	67.17	76.79	
MW-7	06/11/19	66.75	71.69	
MW-8	06/11/19	67.71	73.41	
MW-9	06/11/19	62.87	68.44	
MW-10	06/11/19	69.83	72.06	no string, clip, weight.
MW-11	06/11/19	74.85	75.59	no string, clip, weight.
MW-12	06/11/19	72.61	77.58	
MW-13	06/11/19	66.70	70.39	
MW-14	06/11/19	71.75	90.02	
MW-15	06/11/19	86.17	87.36	
MW-16	06/11/19	68.05	74.41	
MW-17	06/11/19	69.16	77.03	
MW-18	06/11/19	78.45	78.47	no string, clip, weight.
MW-19	06/11/19	73.08	104.68	
MW-20	06/11/19	82.72	86.89	
MW-21	06/11/19	73.30	96.29	
MW-22	06/11/19	63.66	67.93	
MW-23	06/11/19	91.08	101.35	
MW-24	06/11/19	49.44	62.74	
MW-25	06/11/19	78.40	95.50	
MW-26	06/11/19	64.22	75.75	
MW-27	06/11/19	—	48.57	well dry.
MW-28	06/11/19	64.57	74.14	
MW-29	06/11/19	66.70	78.62	
MW-30	06/11/19	68.44	73.95	
MW-31	06/11/19	80.21	83.75	
MW-32	06/11/19	85.84	87.85	no string, clip, weight.
WW-1	06/11/19	69.69	180.72	No hydrasteve.
West MW	06/11/19	61.59 62.18	67.31 76.40	
Southwest MW		62.28	70.46	
RW-1	06/11/19	61.46	—	pump in well, unable to get TD.

Well Inspection Checklist and Reporting Form

Site Name/ Location CIL Enjin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-1 Inspection Date 4/11/19 Inspector LR
 Measured Well Depth 81.76 Measuring Point TOL Depth to water 101.54

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location C-1L EWIN Chevron Fuller Project Number B0047270.0007

Well Identification MW-2 Inspection Date 02/11/19 Inspector LR

Measured Well Depth 71.80 Measuring Point TOL Depth to water 61.59

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does bailer/pump travel freely to and from bottom of well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

NOTES ANDOBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location 712 Enrich Chevron Fuller Project Number B0047270.0007
 Well Identification MW-3 Inspection Date 02/11/19 Inspector LB
 Measured Well Depth 73.05 Measuring Point TOL Depth to water 64.26

VISUAL INSPECTION

- | | | | |
|--|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well?..... | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration?..... | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location AL Ewin Chevron Fuller Project Number B0047270.0007
 Well Identification mw-4 Inspection Date 02/11/19 Inspector LR
 Measured Well Depth 73.08 Measuring Point TDC Depth to water 63.10

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: all equipment present. water in at side of casing.

Well Inspection Checklist and Reporting Form

Site Name/ Location 914 Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification PMW-5 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 72.45 Measuring Point TWC Depth to water 59.53

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GIL Enrich Chevron Fuller Project Number B0047270.0007
 Well Identification MW-6 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 76.79 Measuring Point TOC Depth to water 67.17

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL ERWIN Chevron Fuller Project Number B0047270.0007
 Well Identification mw-7 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 71.09 Measuring Point TDC Depth to water 66.75

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location Gl Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-8 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 73.41 Measuring Point TDC Depth to water 69.71

VISUAL INSPECTION

- | | | | |
|--|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well?..... | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration?..... | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-9 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 68.44 Measuring Point TDL Depth to water 62.87

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES ANDOBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location CIL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-10 Inspection Date 6/11/19 Inspector LS
 Measured Well Depth 72.00 Measuring Point TDC Depth to water 69.83

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: no string, clip, weight.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-11 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 75.59 Measuring Point TOL Depth to water 74.85

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: no string, clip, or weight

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-12 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 77.58 Measuring Point TDC Depth to water 72.61

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location FL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-13 Inspection Date 04/11/19 Inspector LB
 Measured Well Depth 70.39 Measuring Point TOC Depth to water 64-70

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 14 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 90.02 Measuring Point TOL Depth to water 71.75

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 15 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 27.36 Measuring Point TDC Depth to water 20.17

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GIL ERWIN Chevron Fuller Project Number B0047270.0007
 Well Identification MW-16 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 74.41 Measuring Point TOL Depth to water 68.05

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-17 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 77.03 Measuring Point TDC Depth to water 69.16

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL ERWIN Chevron Fuller Project Number B0047270.0007
 Well Identification MW-18 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 78.47 Measuring Point TDC Depth to water 78.45

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: no string, clip, weight. Inufficient water.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 19 Inspection Date 10/11/19 Inspector LR
 Measured Well Depth 104.68 Measuring Point TDC Depth to water 73.08

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 20 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 88.89 Measuring Point TDL Depth to water 62.72

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-21 Inspection Date 4/11/19 Inspector LB
 Measured Well Depth 96.29 Measuring Point TDC Depth to water 73.30

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GIL ENGIN Chevron Fuller Project Number B0047270.0007
 Well Identification MW-22 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 67.93 Measuring Point TDC Depth to water 63.46

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location FL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 23 Inspection Date 10/11/19 Inspector LB
 Measured Well Depth 101.35 Measuring Point TDC Depth to water 91.08

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: all equipment present. Had mud at bottom of well.
Soft bottom.

Well Inspection Checklist and Reporting Form

Site Name/ Location Gil Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-24 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 62.74 Measuring Point TDC Depth to water 49.44

VISUAL INSPECTION

- | | | | |
|--|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well?..... | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration?..... | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does bailer/pump travel freely to and from bottom of well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW - 25 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 95.50 Measuring Point TOC Depth to water 78.40

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location CHEVRON FULLER Project Number B0047270.0007
 Well Identification MW-26 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 75.75 Measuring Point TOC Depth to water 64.22

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location GL ERWIN Project Number B0047270.0007
 Well Identification MW - 27 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 48.57 Measuring Point TOL Depth to water — well dry

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: no string, weight, or clip. well dry.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Enwin Chevron Fuller LB Project Number B0047270.0007 LB
 Well Identification MW - 28 Inspection Date 01/11/19 Inspector LB
 Measured Well Depth 74.14 Measuring Point TOL Depth to water 64.57

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location CLL Enwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-29 Inspection Date 06/11/19 Inspector LB
 Measured Well Depth 78.62 Measuring Point TDC Depth to water 166.70

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES ANDOBSERVATIONS: CLL equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location G L Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification mw - 30 Inspection Date 4/11/19 Inspector LB
 Measured Well Depth 73.45 Measuring Point TOL Depth to water 68.44

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES AND

OBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification MW-31 Inspection Date 10/11/19 Inspector LB
 Measured Well Depth 83.75 Measuring Point TDC Depth to water 80.21

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: all equipment present

Well Inspection Checklist and Reporting Form

Site Name/ Location GL ERWIN Chevron Fuller Project Number B0047270.0007

Well Identification MW-32 Inspection Date 6/11/19 Inspector LB

Measured Well Depth 87.85 Measuring Point TDC Depth to water 85.84

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <u>N</u> | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: no string, weight, or cap. No hydrasleeve.

Well Inspection Checklist and Reporting Form

Site Name/ Location AL ERWIN Chevron Fuller Project Number B0047270.0007
 Well Identification WW-1 Inspection Date 6/11/19 Inspector LB
 Measured Well Depth 180.72 Measuring Point 700 Depth to water 69.69

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y N N/A
- Does water appear discolored or have an unusual odor or appearance? Y N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES ANDOBSERVATIONS: no hydraulics present

Well Inspection Checklist and Reporting Form

Site Name/ Location GIL EMIN Chevron Fuller Project Number B0047270.0007
 Well Identification MW-W Inspection Date 4/11/19 Inspector LB
 Measured Well Depth 47.31 Measuring Point TUL Depth to water 61.59

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does bailer/pump travel freely to and from bottom of well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location GIL ERWIN Chevron Fuller Project Number B0047270.0007
 Well Identification SW-MW Inspection Date 06/11/19 Inspector LR
 Measured Well Depth 70.46 Measuring Point TDC Depth to water 42.28

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) | <u>Y</u> | N | N/A |
| Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) | <u>Y</u> | N | N/A |
| Does bailer/pump travel freely to and from bottom of well? | Y | N | <u>N/A</u> |
| Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? | Y | N | <u>N/A</u> |
| Does the bailer contain excessive amounts of silt or rust? | Y | N | <u>N/A</u> |
| Does water appear discolored or have an unusual odor or appearance? | Y | <u>N</u> | N/A |
| Is the lock on the well cover/cap clean and fully functional? | <u>Y</u> | N | N/A |

NOTES ANDOBSERVATIONS: all equipment present.

Well Inspection Checklist and Reporting Form

Site Name/ Location Gil Erwin Chevron Fuller Project Number B0047270.0007
 Well Identification RW-1 Inspection Date 02/11/19 Inspector LR
 Measured Well Depth Measuring Point TDC Depth to water 61.46

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | <u>N/A</u> |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: pump in well, unable to gauge TD.

Site Name: GL Envin
Well Identification: mw-1
Static Water Level: 661.54
Stop Time: 8:25 am

Date: 06/13/19

Personnel: LB, JL

Total Depth: 81.76

Start Time: 8:22 am

[illegible]

* denotes where hydrotellur was set.

Site Name: GL ERWIN
Well Identification: HW-2
Static Water Level: 61.59
Stop Time: 8:11 am

Date: 06/13/19

Personnel: LB, JL

Total Depth: 71.80

Start Time: 8:07 am

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: AL Erwin
Well Identification: mw - 3
Static Water Level: 64.26
Stop Time: 4:37 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 73.05

Start Time: 4:34 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: CIL Erwin
Well Identification: mw -4
Static Water Level: 103.10
Stop Time: 9:55 am

Date: 06/13/19

Personnel: LB, JL

Total Depth: 73.08

Start Time: 9:53 am

[illegible]

* denotes where hydrosphere was set.

Site Name: GL ERWIN
Well Identification: mw-5
Static Water Level: 59.53
Stop Time: 4:30 pm

Date: 06/11/19

Personnel: LB, JL

Total Depth: 72, 65

Start Time: 4:15 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: GL Erwin
Well Identification: mw-6
Static Water Level: 67.17
Stop Time: 12:14 pm

Date: 06/12/14
Personnel: LB, JL
Total Depth: 76.79
Start Time: 12:10 pm

[illegible]

* denotes where hydraulic was set.

Site Name: AL Enwin
Well Identification: mw-7
Static Water Level: 14.75
Stop Time: 4:25 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 71.64

Start Time: 4:23 pm

[illegible]

* denotes where hydrolase was act.

Site Name: AL Erwin
Well Identification: mw-8
Static Water Level: 67, 71
Stop Time: ~~11:25~~ 12:25 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 73.41

Start Time: 12:25 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: 612 Erwin
Well Identification: mw-9
Static Water Level: 42.87
Stop Time: 9:38 am

Date: 06/12/19

Personnel: LB, JL

Total Depth: 08.44

Start Time: 9:36 am

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: GL Erwin
Well Identification: mw-10
Static Water Level: 69.83
Stop Time: 10:07 am

Date: 06/12/19

Personnel: LB, JL

Total Depth: 72, 06

Start Time: 10:05 am

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: BL Erwin
Well Identification: mw-11
Static Water Level: 74.85
Stop Time:

Date: 06/12/14

Personnel: LB, JL

Total Depth: 75.54

Start Time: —

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: GL Erwin
Well Identification: MW-12
Static Water Level: 72.461
Stop Time: 2:47 pm

Date: 06/12/19
Personnel: LB, JL
Total Depth: 77.58
Start Time: 2:05pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Date: 06/12/19

Personnel: LR, JL

Total Depth: 70.39

Start Time: 4:10 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: GL Erwin
Well Identification: mw-14
Static Water Level: 71.75
Stop Time: 2:45 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 90.02

Start Time: 2:40 pm

[illegible]

* denotes where hydraulic was set.

Site Name: GL Enwin
Well Identification: MW-15
Static Water Level: 20.17
Stop Time: 1:57 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 27.36

Start Time: 1:55 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Date: 06/12/14

Personnel: LB, JL

Total Depth: 74.41

Start Time: 12:54 pm

[illegible]

* donees where hydrolevelle was set.

Site Name: GL Erwin
Well Identification: mw-17
Static Water Level: 64.16
Stop Time: 2:25 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 77.03

Start Time: 2:23 pm

[illegible]

* denotes where hydrolevel was set

Well Conductivity Profile Field data Sheet

Site Name: GL Enwin
Well Identification: MW-18
Static Water Level: 78.45
Stop Time:

Date: 04/12/19

Personnel: LB, JL

Total Depth: 78.47

Start Time: _____

[illegible]

Site Name: GL Erwin
Well Identification: mw-14
Static Water Level: 73.0 ft
Stop Time: 3:01 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 164.68

Start Time: 2:53 PM

[illegible]

* denotes where hydraulic level was set.

Well Conductivity Profile Field data Sheet

Site Name: GIL Erwin
Well Identification: mw-20
Static Water Level: 22.72
Stop Time: 1:45 pm

Date: 06/12/14

Personnel: LB, JL

Total Depth: 88, 89

Start Time: 1:43 pm

[illegible]

* denotes where hydralazine was set.

Site Name: GL Erwin
Well Identification: ~~20-21~~ mw-21
Static Water Level: 73, 30
Stop Time: 3:20 pm

Date: 06/13/19

Personnel: LB, JL

Total Depth: 96.24

Start Time: 3:15 pm

[illegible]

* denotes where hydrolysis was set.

Date: 06/12/19

Personnel: LB, JL

Total Depth: 17.93

Start Time: ~~9:10am~~ 9:21am

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Date: 06/12/19

Personnel: LB, JL

Total Depth: 101.35

Start Time: 12:12 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: AL Enwin
Well Identification: mw-24
Static Water Level: 49.44
Stop Time: 3:39 pm

Date: 04/12/19

Personnel: LB, NL

Total Depth: 62.74

Start Time: 3:34 pm

[illegible]

* denotes where hydraulic wave set.

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: mw-25
Static Water Level: 78.40
Stop Time: 11:29 am

Date: 06/12/14

Personnel: LB, JL

Total Depth: 95.50

Start Time: 11:27 am

[illegible]

* denotes where hydraulic was set,

Well Conductivity Profile Field data Sheet

Site Name: C1L Erwin
Well Identification: mw-26
Static Water Level: 104.22
Stop Time: 9:05 am

Date: 06/12/14

Personnel: LB, JL

Total Depth: 75.75

Start Time: 9:08 am

[illegible]

* denotes where hydraulic sleeve was set.

Site Name: GL Erwin
Well Identification: mw - 27
Static Water Level: — well dry.
Stop Time: _____

Date: 06/12/14

Personnel: LB, JL

Total Depth: 48.57

Start Time:

Released to Imaging: 8/17/2023 3:40:54 PM

Date: 06/12/19

Personnel: LB, JL

Total Depth: 74.14

Start Time: 8:47 am

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Date: 06/12/19

Personnel: LBJL

Total Depth: 78.62

Start Time: 4:50 pm

[illegible]

Released to Imaging: 8/17/2023 3:40:54 PM

Well Conductivity Profile Field data Sheet

Site Name: AL Erwin
Well Identification: MW-30
Static Water Level: 168.44
Stop Time: 3:59 pm

Date: 06/12/19

Personnel: LB, JL

Total Depth: 73.95

Start Time: 3:06 pm

[illegible]

* denotes where hydrolevel was set.

Date: 06/12/14

Personnel: LB, JL

Total Depth: 82.60

Start Time: 10:54 am

Released to Imaging: 8/17/2023 3:40:54 PM

Site Name: AL Erwin
Well Identification: mw-32
Static Water Level: 85.84
Stop Time: 12:30 pm

Date: 06/12/14

Personnel: LB, JL

Total Depth: 87-85

Start Time: 12:28 pm

Released to Imaging: 8/17/2023 3:40:54 PM

Well Conductivity Profile Field data Sheet

Site Name: CIL Edwin
 Well Identification: WW-1
 Static Water Level: 69.69
 Stop Time: 7:56 am

Date: 06/18/19
 Personnel: LB, JL
 Total Depth: 180.72
 Start Time: 7:35 am

Depth (record in two feet intervals)	Conductivity (Denote Us/cm or MS/cm for each recording)	Temperature (Fahrenheit or Celsius)
70	1.402	19.78
72	1.397	19.78
74	1.396	19.78
76	1.396	19.78
78	1.396	19.78
80	1.396	19.78
82	1.396	19.79
84	1.396	19.79
86	1.397	19.80
88	1.397	19.81
90	1.397	19.81
92	1.397	19.82
94	1.398	19.82
96	1.397	19.83
98	1.397	19.84
100	1.398	19.85
102	1.398	19.86
104	1.398	19.86
106	1.398	19.87
108	1.398	19.88
110	1.398	19.88
112	1.399	19.89
114	1.399	19.90
116	1.399	19.90
118	1.399	19.91
120	1.399	19.92
122	1.399	19.93
124	1.799	19.94
126	1.400	19.95
128	1.400	19.95
130	1.400	19.96
132	1.400	19.97
134	1.401	19.98
136	1.401	19.99
138	1.401	20.00

Site Name: GL Enorm
Well Identification: WW-1 Continued.
Static Water Level: 69.69
Stop Time: _____

Date: 06/13/19
Personnel: CR, JL
Total Depth: 180.72
Start Time:

Released to Imaging: 8/17/2023 3:40:54 PM

Well Conductivity Profile Field data Sheet

Site Name: GL ERWIN
Well Identification: W-MW
Static Water Level: 11.59
Stop Time: 9:54 am

Date: 04/12/19

Personnel: LB, JL

Total Depth: 47.31

Start Time: 9:50 am

[illegible]

* denotes where hydrosleeve was set.

Site Name: GL EMIN
Well Identification: SW-MW
Static Water Level: 62.28
Stop Time: 9:34 am

Date: 06/13/14
Personnel: LB, JL
Total Depth: 70.46
Start Time: 9:37 am

[illegible]

* denotes where hypothesis was set.

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer Project No. _____ Page 1 of 1
 Site Location: GL Erwin Date 06/19/19
 Site/Well No. MW-1 Replicate No. _____ Code No. _____
 Weather: HOT, sunny Sampling Time: Begin 13:04 End 13:04

Evacuation Data

Sounded Well Depth (ft bmp) 81.76
 Depth to Water (ft bmp) 61.54
 Gallons Pumped/Bailed Prior to Sampling Full hydraulic leave
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydraulic leave

Field Parameters

Color rust / light tan
 Odor _____
 Appearance cloudy
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel DL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
13:04	—	—	1.75	143.4	7.25	23.02	1.563	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HEW Transfer

Project No. _____

Page 1 of 1Site Location: AL EnwinDate 06/19/19Site/Well No. MW-2

Replicate No. _____

Code No. _____

Weather: Hot, SunnySampling Time: Begin 12:53 pmEnd 12:53 pm

Evacuation Data

Sounded Well Depth (ft bmp) 71.80Depth to Water (ft bmp) 61.59Gallons Pumped/Bailed Prior to Sampling Full hydraulic levelSample Pump Intake Depth (ft bmp) N/A

Sample Pump controller Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic level

Field Parameters

Color tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
12:53pm	—	—	1.36	267.2	7.16	23.59	2.572	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CUX HES Transfer
 Site Location: GL ERM
 Site/Well No. MW-3
 Weather: Hot, Sunny

Project No. _____

Page 1 of 1

Date 06/19/19

Replicate No. _____

Code No. _____

Sampling Time: Begin 12:41 pm

End 12:41 pm

Evacuation Data

Sounded Well Depth (ft bmp) 73.05
 Depth to Water (ft bmp) 64.26
 Gallons Pumped/Bailed Prior to Sampling Full Hydraulic
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydraulic

Field Parameters

Color Clear / Turb
 Odor _____
 Appearance Cloudy
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
12:41 pm	—	—	1.61	194.1	9.56	23.17	2.442	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer
 Site Location: GL Ewin
 Site/Well No. MW-4
 Weather: Hot, sunny

Project No. _____
 Replicate No. _____
 Sampling Time: Begin 13:20

Page 1 of 1
 Date 06/19/19
 Code No. _____
 End 13:20

Evacuation Data

Sounded Well Depth (ft bmp) 73.08
 Depth to Water (ft bmp) 63.16
 Gallons Pumped/Bailed Prior to Sampling Full hydrasteeve
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydrasteeve

Field Parameters

Color tan
 Odor _____
 Appearance cloudy
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
13:20	—	—	1.17	225.3	6.78	23.02	7.201	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: ML ErwinDate 06/19/19Site/Well No. MW-5

Replicate No. _____

Code No. _____

Weather: Hot, SunnySampling Time: Begin 12:47 pmEnd 12:47 pm**Evacuation Data**Sounded Well Depth (ft bmp) 72.05Depth to Water (ft bmp) 59.53Gallons Pumped/Bailed
Prior to Sampling Full hydraulicSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic**Field Parameters**Color rust

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND (µS/cm)	Turbidity (NTU)		
12:47 pm	—	—	1.35	204.8	7.26	23.00	2.043	—		

Constituents Sampled**Container Description****Number****Preservative**

bmp below measuring point
 °C degrees Celsius
 ft feet
 ml/min milliliters per minute
 mg/L milligrams per liter

ml milliliter
 mS/cm millisiemens per centimeter
 mS microsiemens
 N/A not applicable
 NR not recorded

s.u. standard units
 mv millivolts
 NTU Nephelometric Turbidity Units
 umhos/cm Micromhos per centimeter
 VOC Volatile Organic Compounds

ARCADIS
Micropurge Sampling Log
Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: 71L ErwinDate 04/19/19Site/Well No. MW-6

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 12:30 pmEnd 12:30 pm**Evacuation Data**Sounded Well Depth (ft bmp) 76.79Depth to Water (ft bmp) 67.17Gallons Pumped/Bailed
Prior to Sampling Full Hydraulic HeadSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic Head**Field Parameters**Color Clear

Odor _____

Appearance _____

*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
12:30pm	—	—	1.46	183.1	7.67	23.43	1.820	—		

Constituents Sampled**Container Description****Number****Preservative**

bmp below measuring point
 °C degrees Celsius
 ft feet
 ml/min milliliters per minute
 mg/L milligrams per liter

ml milliliter
 mS/cm milisiemens per centimeter
 mS microsiemens
 N/A not applicable
 NR not recorded

S.U. standard units
 mv millivolts
 NTU Nephelometric Turbidity Units
 umhos/cm Micromhos per centimeter
 VOC Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EWINDate 6/19/19Site/Well No. MW-7

Replicate No. _____

Code No. _____

Weather: Partly SunnySampling Time: Begin 12:12 PMEnd 12:12 PM**Evacuation Data**Sounded Well Depth (ft bmp) 71.64Depth to Water (ft bmp) 66.75Gallons Pumped/Bailed
Prior to Sampling Full HydrasteeveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrasteeve**Field Parameters**Color tanOdor etAppearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
12:12 PM	—	—	1.75	173.0	7.52	22.76	1.131	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HEN Transter

Project No. _____

Page 1 of 1Site Location: GL ENGINDate 06/19/19Site/Well No. MW-8

Replicate No. _____

Code No. _____

Weather: Hot, SunnySampling Time: Begin 12:21 pmEnd 12:21 pm

Evacuation Data

Sounded Well Depth (ft bmp) 73.41Depth to Water (ft bmp) 67.71Gallons Pumped/Bailed
Prior to Sampling Full hydrasteeveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrasteeve

Field Parameters

Color light tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel DL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
12:21 pm	—	—	1.44	189.2	7.52	22.86	1.924	—		

Constituents Sampled

Container Description

Number

Preservative

bmp below measuring point
°C degrees Celsius
ft feet
ml/min milliliters per minute
mg/L milligrams per liter

ml milliliter
mS/cm millisiemens per centimeter
mS microsiemens
N/A not applicable
NR not recorded

s.u. standard units
mv millivolts
NTU Nephelometric Turbidity Units
umhos/cm Micromhos per centimeter
VOC Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HCU Transfer Project No. _____ Page 1 of 1
 Site Location: 7L ENWIN Date 06/19/19
 Site/Well No. MW-9 Replicate No. _____ Code No. _____
 Weather: Sunny, Hot Sampling Time: Begin 8:32 am End 8:32 am

Evacuation Data

Sounded Well Depth (ft bmp) 68.44
 Depth to Water (ft bmp) 62.87
 Gallons Pumped/Bailed Prior to Sampling Full Hydrovace
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydrovace

Field Parameters

Color White
 Odor _____
 Appearance Murky, sediment @ bottom
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks ↓
 Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
8:32 am	—	—	1.45	125.9	7.67	20.85	1.567	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS
Micropurge Sampling Log
Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: CL ERWINDate 06/19/19Site/Well No. MW-10

Replicate No. _____

Code No. _____

Weather: Sunny, HOTSampling Time: Begin 8:52 amEnd 8:52 am**Evacuation Data**Sounded Well Depth (ft bmp) 72.06Depth to Water (ft bmp) 69.83Gallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrovac**Field Parameters**Color N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
8:52 am										
no sample collected, insufficient water in well										

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HEU Transfer

Project No. _____

Page 1 of 1Site Location: GL EwinDate 06/19/19Site/Well No. MW-11

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 8:58

End _____

Evacuation DataSounded Well Depth (ft bmp) 75.59Depth to Water (ft bmp) 74.85Gallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method _____

Field ParametersColor N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
no sample collected, insufficient water										

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: 71L ErwinDate 06/19/19Site/Well No. mw-12

Replicate No. _____

Code No. _____

Weather: Sunny, hotSampling Time: Begin 10:09 amEnd 10:09 am

Evacuation Data

Sounded Well Depth (ft bmp) 77.58Depth to Water (ft bmp) 72.61Gallons Pumped/Bailed
Prior to Sampling Full hydraulic driveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic drive

Field Parameters

Color tan / rustOdor mineral / cloudy

Appearance _____

*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
10:09am	—	—	1.40	184.7	6.74	23.10	5.102	—		

Constituents Sampled

Container Description

Number

Preservative

bmp below measuring point
°C degrees Celsius
ft feet
ml/min milliliters per minute
mg/L milligrams per liter

ml milliliter
mS/cm milisiemens per centimeter
mS microsiemens
N/A not applicable
NR not recorded

s.u. standard units
mv millivolts
NTU Nephelometric Turbidity Units
umhos/cm Micromhos per centimeter
VOC Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: CUX HES Transfer

Project No. _____

Page 1 of 1

Site Location: GL EdwinDate 06/19/19Site/Well No. MW - 1B

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 12:05 pmEnd 12:05 pm

Evacuation Data

Sounded Well Depth (ft bmp) 76.39Depth to Water (ft bmp) LOW. 70Gallons Pumped/Bailed
Prior to Sampling Half hydraulic / 70MLSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic

Field Parameters

Color TECH / NOT

Odor _____

Appearance _____

*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel DL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
12:05 pm	—	—	1.08	170.3	7.10	24.12	2.879	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES transfer

Project No. _____

Page 1 of 1Site Location: 91L ERWINDate 06/19/19Site/Well No. MW-14

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 11:32 amEnd 11:32 am

Evacuation Data

Sounded Well Depth (ft bmp) 90.02Depth to Water (ft bmp) 71.75Gallons Pumped/Bailed
Prior to Sampling Full HydrusleeveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrusleeve

Field Parameters

Color muddy / tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
11:32	—	—	1.09	213.0	6.50	22.70	25.42	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: CUX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL ERWINDate 06/19/19Site/Well No. MW-15

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 10:02 amEnd 10:02 am

Evacuation Data

Sounded Well Depth (ft bmp) 87.36Depth to Water (ft bmp) 26.17Gallons Pumped/Bailed
Prior to Sampling Full hydrostaticSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrostatic

Field Parameters

Color tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel UL, LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
10:02 am	—	—	1.55	155.3	7.08	22.99	2.058	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EwinDate 06/19/19Site/Well No. MW-16

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 12:28 pmEnd 12:28 pm

Evacuation Data

Sounded Well Depth (ft bmp) 74.41Depth to Water (ft bmp) 68.65Gallons Pumped/Bailed
Prior to Sampling Full hydrasleeveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method hydrasleeve

Field Parameters

Color not / tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
12:28pm	—	—	1.27	182.7	7.32	23.27	1.658	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer

Project No. _____

Page 1 of 1

Site Location: CL ErwinDate 06/19/19Site/Well No. MW-17

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 11:19 amEnd 11:19 am

Evacuation Data

Sounded Well Depth (ft bmp) 77.03Depth to Water (ft bmp) 69.16Gallons Pumped/Bailed
Prior to Sampling Full HydraulicSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic

Field Parameters

Color clearly

Odor _____

Appearance rust color @ bottom*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel LL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
11:19am	—	—	48.1-410 18.6	170.4	7.36	24.67	1.748	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: CLL FURNDate 06/19/19Site/Well No. MW-18

Replicate No. _____

Code No. _____

Weather: Hot, sunny

Sampling Time: Begin _____

End _____

Evacuation DataSounded Well Depth (ft bmp) 78.47Depth to Water (ft bmp) well dryGallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method _____

Field ParametersColor N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
<u>no sample collected, well dry</u>										

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HEU Transfer Project No. _____ Page 1 of 1
 Site Location: 71L Enwin Date 06/19/19
 Site/Well No. MW-14 Replicate No. _____ Code No. _____
 Weather: Hot, Sunny Sampling Time: Begin 11:39 am End 11:39 am

Evacuation Data

Sounded Well Depth (ft bmp) 104.88
 Depth to Water (ft bmp) 73.08
 Gallons Pumped/Bailed Prior to Sampling Full Hydraulic Elev
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydraulic Elev

Field Parameters

Color Tan / Rust
 Odor _____
 Appearance _____
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
11:39 am	—	—	1.05	200.5	6.78	22.50	8.444	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: OL ErwinDate 06/14/19Site/Well No. MW -20

Replicate No. _____

Code No. _____

Weather: Hot, SunnySampling Time: Begin 9:53 amEnd 9:53 am**Evacuation Data**Sounded Well Depth (ft bmp) 88.89Depth to Water (ft bmp) 82.72Gallons Pumped/Bailed
Prior to Sampling Full HydraulicSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic**Field Parameters**Color White / Tan

Odor _____

Appearance Cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel DL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
9:53 am	—	—	1.48	158.2	6.88	22.83	3.427	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EmwinDate 06/18/19Site/Well No. MW-21

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 9:42 amEnd 9:42 am

Evacuation Data

Sounded Well Depth (ft bmp) 96.29Depth to Water (ft bmp) 73.30Gallons Pumped/Bailed
Prior to Sampling Full Hydraulic HeadSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic Head

Field Parameters

Color rust / tanOdor —Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND ()	Turbidity (NTU)		
9:42 am	—	—	1.61	146.5	7.04	22.76	1.359	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: Cvx HES Transfer

Project No. _____

Page 1 of 1Site Location: GL ErwinDate 06/19/19Site/Well No. mw-22

Replicate No. _____

Code No. _____

Weather: Sunny, HotSampling Time: Begin 8:24 amEnd 8:24 am**Evacuation Data**Sounded Well Depth (ft bmp) 67.93Depth to Water (ft bmp) 63.66Gallons Pumped/Bailed
Prior to Sampling Full HydrastereSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method HYDRASTERE**Field Parameters**Color Tan

Odor _____

Appearance murky / cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
8:24am	—	—	1.15	160.5	6.94	21.23	8.116	—		

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer
 Site Location: GL Erwin
 Site/Well No. MW-23
 Weather: Hot, sunny

Project No. _____

Page 1 of 1Date 06/19/19

Replicate No. _____

Code No. _____

Sampling Time: Begin 9:23 amEnd 9:23 am**Evacuation Data**Sounded Well Depth (ft bmp) 101.35Depth to Water (ft bmp) 91.08Gallons Pumped/Bailed
Prior to Sampling Full HydraulicSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic**Field Parameters**Color clear @ top, mist @ bottom

Odor _____

Appearance sediment @ bottom*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks ↓Sampling Personnel IL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
<u>9:23 am</u>	<u>—</u>	<u>—</u>	<u>1.29</u>	<u>133.2</u>	<u>7.25</u>	<u>22.98</u>	<u>1.369</u>	<u>—</u>		

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HEU Transfer
 Site Location: MW-24B (IL ENIN)
 Site/Well No. MW-24
 Weather: HOT, SUNNY

Project No. _____ Page 1 of 1
 Date 06/19/19
 Replicate No. _____ Code No. _____
 Sampling Time: Begin 9:34 am End 9:34 am

Evacuation Data

Sounded Well Depth (ft bmp) 62.74
 Depth to Water (ft bmp) 49.44
 Gallons Pumped/Bailed Prior to Sampling FULL HYDRAULIC
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method HYDRAULIC

Field Parameters

Color clear
 Odor _____
 Appearance _____
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µmhos/cm)	Turbidity (NTU)		
9:34am	—	—	1.19	159.8	6.91	22.37	4.858	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS Micropurge Sampling Log

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: FL LMINDate 06/19/19Site/Well No. DDW - 25Replicate No. 1

Code No. _____

Weather: Hot, sunnySampling Time: Begin 9:01 amEnd 9:01 am

Evacuation Data

Sounded Well Depth (ft bmp) 95.50Depth to Water (ft bmp) 78.40Gallons Pumped/Bailed
Prior to Sampling Full hydravacSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydravac

Field Parameters

Color rust

Odor _____

Appearance sediment @ bottom - rust colored*IRON, ferrous N/A*SULFIDES ↓

Data Frame _____

Remarks EB-1 collected at this
time. 9:03 am

Sampling Personnel _____

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
9:01 am	—	—	1.23	156.4	6.86	21.85	6.724	—		

Constituents Sampled

Container Description

Number

Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: LUX HEU Transfer

Project No. _____

Page 1 of 1Site Location: GL ErwinDate 06/19/19Site/Well No. MW-26

Replicate No. _____

Code No. _____

Weather: Sunny, HotSampling Time: Begin 8:14End 8:14**Evacuation Data**Sounded Well Depth (ft bmp) 75.75Depth to Water (ft bmp) 64.22Gallons Pumped/Bailed
Prior to Sampling Full HydrastaveSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrastave**Field Parameters**Color RUHT

Odor _____

Appearance _____

*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL, LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
<u>8:14</u>	<u>—</u>	<u>—</u>	<u>1.48</u>	<u>160.2</u>	<u>7.60</u>	<u>21.32</u>	<u>3.375</u>	<u>—</u>		

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS
Micropurge Sampling Log
Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EnwinDate 06/19/19Site/Well No. MW-27

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 10:53 amEnd 10:57 am**Evacuation Data**Sounded Well Depth (ft bmp) 48.57Depth to Water (ft bmp) well dryGallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method _____

Field ParametersColor N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
<u>11:53am</u>	_____	_____						_____		
<u>no sample collected, well dry</u>										

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS
Micropurge Sampling Log
Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: CL ErwinDate 06/19/19Site/Well No. mw-26Replicate No. Dup-1

Code No. _____

Weather: Sunny, warmSampling Time: Begin 8:03End 8:03**Evacuation Data**Sounded Well Depth (ft bmp) 74.14Depth to Water (ft bmp) 64.57Gallons Pumped/Balled
Prior to Sampling Full HydraulicSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic**Field Parameters**Color ClearOdor —Appearance —*IRON, ferrous N/A*SULFIDES —Data Frame —Remarks —Sampling Personnel JL, LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND (mg/cm ³)	Turbidity (NTU)		
8:03	—	—	1.43	223.4	6.90	22.17	11.41	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HEU Transfer
 Site Location: GL Erwin
 Site/Well No. MW-29
 Weather: Hot, Sunny

Project No. _____
 Replicate No. DUP-2
 Sampling Time: Begin 13:26

Page 1 of 1
 Date 06/19/19
 Code No. _____
 End 13:26

Evacuation Data

Sounded Well Depth (ft bmp) 78.62
 Depth to Water (ft bmp) 66.70
 Gallons Pumped/Bailed Prior to Sampling Full Hydrostatic
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) N/A
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydrostatic

Field Parameters

Color Clear
 Odor _____
 Appearance _____
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel DL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND (µS/cm)	Turbidity (NTU)		
13:26	—	—	1.71	224.0	6.80	23.36	7.806	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS
Micropurge Sampling Log
Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EdwinDate 06/19/19Site/Well No. MW-30Replicate No. Dup - 1

Code No. _____

Weather: Hot, SunnySampling Time: Begin 12:00 PMEnd 12:00 PM**Evacuation Data**Sounded Well Depth (ft bmp) 73.95Depth to Water (ft bmp) 68.44Gallons Pumped/Bailed
Prior to Sampling Full Hydraulic LevelSample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic Level**Field Parameters**Color ClearOdor —Appearance N/A*IRON, ferrous ↓*SULFIDES ↓

Data Frame _____

Remarks dup - 1 collected atthis time 12:02 PMSampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
12:00 PM	—	—	1.24	194.2	6.09	23.53	25.42	—		

Constituents Sampled**Container Description****Number****Preservative**

pmp below measuring point
°C degrees Celsius
ft feet
ml/min milliliters per minute
mg/L milligrams per liter

ml milliliter
mS/cm millisiemens per centimeter
mS microsiemens
N/A not applicable
NR not recorded

s.u. standard units
mv millivolts
NTU Nephelometric Turbidity Units
umhos/cm Micromhos per centimeter
VOC Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HEU Transfer

Project No. _____

Page 1 of 1Site Location: GL EminDate 06/19/19Site/Well No. MW-31

Replicate No. _____

Code No. _____

Weather: Hot, sunnySampling Time: Begin 9:12 amEnd 9:12 am**Evacuation Data**Sounded Well Depth (ft bmp) 83.75Depth to Water (ft bmp) 80.21Gallons Pumped/Bailed
Prior to SamplingN/ASample Pump Intake
Depth (ft bmp)Sample Pump controller
Settings (cpm/psi)

Purge Time

Begin _____

End _____

Pumping Rate (gpm)

Evacuation Method

Field ParametersColor N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
9:12 am										
no sample collected, insufficient water										

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s. u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HEU Transfer
 Site Location: GL Erwin
 Site/Well No. MW-32
 Weather: Hot, sunny

Project No. _____
 Replicate No. _____
 Sampling Time: Begin 9:24am

Page 1 of 1
 Date 06/19/19
 Code No. _____
 End 9:34am

Evacuation Data

Sounded Well Depth (ft bmp) 87.85
 Depth to Water (ft bmp) 85.84
 Gallons Pumped/Bailed Prior to Sampling Full Hydrulic
 Sample Pump Intake Depth (ft bmp) N/A
 Sample Pump controller Settings (cpm/psi) _____
 Purge Time Begin _____ End _____
 Pumping Rate (gpm) _____
 Evacuation Method Hydrulic

Field Parameters

Color N/A
 Odor N/A
 Appearance N/A
 *IRON, ferrous N/A
 *SULFIDES _____
 Data Frame _____
 Remarks _____
 Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND ()	Turbidity (NTU)		
<u>no sample collected, no hydrulic</u>										

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CUX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL ErwinDate 06/14/19Site/Well No. WW-1

Replicate No. _____

Code No. _____

Weather: HOT, sunny

Sampling Time: Begin _____

End _____

Evacuation DataSounded Well Depth (ft bmp) 180.72Depth to Water (ft bmp) 169.69Gallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method _____

Field ParametersColor N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
<u>no sample collected, no hydrasteeve</u>										

Constituents Sampled**Container Description****Number****Preservative**

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL EwingDate 06/19/19Site/Well No. SW - MW

Replicate No. _____

Code No. _____

Weather: Hot sunnySampling Time: Begin 13:15End 17:15**Evacuation Data**Sounded Well Depth (ft bmp) 70.46Depth to Water (ft bmp) 62.28Gallons Pumped/Bailed
Prior to Sampling Full hydraulic leaveSample Pump intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydraulic leave**Field Parameters**Color Tan

Odor _____

Appearance cloudy*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL / LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
13:15	—	—	1.49	269.0	7.14	22.91	3.658	—		

Constituents Sampled**Container Description****Number****Preservative**

bmp below measuring point
 °C degrees Celsius
 ft feet
 ml/min milliliters per minute
 mg/L milligrams per liter

ml milliliter
 mS/cm millisiemens per centimeter
 mS microsiemens
 N/A not applicable
 NR not recorded

s.u. standard units
 mv millivolts
 NTU Nephelometric Turbidity Units
 umhos/cm Micromhos per centimeter
 VOC Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: C V X 1450 Transfer

Project No. _____

Page 1 of 1Site Location: GL EWINDate 04/14/19Site/Well No. W-MW

Replicate No. _____

Code No. _____

Weather: SUNNY, HOTSampling Time: Begin 8:39 amEnd 8:39 am**Evacuation Data**Sounded Well Depth (ft bmp) 67.31Depth to Water (ft bmp) 61.59Gallons Pumped/Bailed
Prior to Sampling FULL HYDRUSTEVESample Pump Intake
Depth (ft bmp) N/ASample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method Hydrusteve**Field Parameters**Color Clear

Odor _____

Appearance _____

*IRON, ferrous N/A

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel JL/LB

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp (°C)	COND ()	Turbidity (NTU)		
8:39am	—	—	17.2	1.53	7.54	21.33	1.024	—		

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS **Micropurge Sampling Log**

Project: CVX HES Transfer

Project No. _____

Page 1 of 1Site Location: GL ErwinDate 06/19/19Site/Well No. RW-1

Replicate No. _____

Code No. _____

Weather: Hot / sunny

Sampling Time: Begin _____

End _____

Evacuation Data

Sounded Well Depth (ft bmp) — pump in wellDepth to Water (ft bmp) 61.46Gallons Pumped/Bailed
Prior to Sampling N/ASample Pump Intake
Depth (ft bmp) _____Sample Pump controller
Settings (cpm/psi) _____

Purge Time Begin _____ End _____

Pumping Rate (gpm) _____

Evacuation Method _____

Field Parameters

Color N/A

Odor _____

Appearance _____

*IRON, ferrous _____

*SULFIDES _____

Data Frame _____

Remarks _____

Sampling Personnel _____

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp °C	COND ()	Turbidity (NTU)		
<u>NO sample collected, pump in well, pump under LOTO.</u>										

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds



Gauging Form

HES Transfer Site Name: G.L. Erwin
Lea County, New Mexico

Monitoring Well ID	Date Gauged	DTW (ft btoc)	Total Depth (ft btoc)	Notes
MW-1	11/21/19	60.73	80.7	
MW-2	11/21/19	66.74	71.68	
MW-3	11/21/19	64.46	73.30	
MW-4	11/21/19	63.25	73.03	
MW-5	11/21/19	59.75	72.51	
MW-6	11/21/19	67.44	76.72	
MW-7	11/21/19	66.93	71.63	not enough water for hydrosleeve took weight from this well, deployed it + deployed it @ MW-9
MW-8	11/22/19	67.81	73.47	marked well name w/ paint pen.
MW-9	11/21/19	63.17	68.26	no weight took weight from MW-7 + deployed hydrosleeve
MW-10	11/21/19	69.94	72.02	not enough water for hydrosleeve will use bailer for sampling
MW-11	11/22/19	74.93	75.6	not enough water for hydrosleeve will use bailer for sampling
MW-12	11/22/19	72.66	77.49	Did not deploy hydrosleeve due to lack of water, will use bailer for sampling
MW-13	11/21/19	66.6	70.4	Didn't deploy hydrosleeve due to lack of water
MW-14	11/21/19	71.70	89.97	
MW-15	11/22/19	80.6	87.37	
MW-16	11/22/19	68.25	74.41	
MW-17	11/22/19	69.25	76.94	put well name clearly on well w/ paint pen
MW-18	11/21/19	78.44	78.50	unable to complete conductivity test due to lack of water
MW-19	11/21/19	73.01	104.55	
MW-20	11/22/19	82.79	98.83	
MW-21	11/21/19	73.6	96.17	
MW-22	11/21/19	63.87	67.79	not enough water for hydrosleeve will use bailer for sampling
MW-23	11/22/19	91.11	101.52	
MW-24	11/21/19	49.52	62.63	
MW-25	11/22/19	78.50	94.30	
MW-26	11/20/19	64.30	75.73	
MW-27	11/20/19	—	48.58	Well dry, no water level measurement acquired
MW-28	11/20/19	64.66	72.90	
MW-29	11/21/19	66.83	78.60	
MW-30	11/21/19	68.54	73.70	
MW-31	11/22/19	80.33	82.75	not enough water for hydrosleeve will use bailer to collect sample
MW-32	11/21/19	85.83	87.0	not enough water to deploy hydrosleeve.
WW-1	11/22/19	69.78	187.80	
West MW	11/21/19	61.80	67.30	
Southwest MW	11/21/19	62.42	70.91	
RW-1	—	—	—	Did not sample, inaccessible.

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-2B
Static Water Level: 64.66
Stop Time: 1625

Date: 11/20/19
Personnel: CF, CM
Total Depth: 72.90
Start Time: 1619

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-28 Inspection Date 11/20/19 Inspector CF, CM
 Measured Well Depth 72.90 Measuring Point 69 Depth to water 64.66

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | <input checked="" type="radio"/> N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: added a clear mark for the measuring point just above the bottom of the well

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-2G
Static Water Level: 64.30
Stop Time: 1637

Date: 11/20/19
Personnel: CF, CM
Total Depth: 75, 73
Start Time: 1629

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-26 Inspection Date 11/20/19 Inspector CF, CM
 Measured Well Depth 75.73 Measuring Point 71 Depth to water 64.30

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance?

Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Site Name: GL Edwin
Well Identification: MW-22
Static Water Level: 63.87
Stop Time: 1033

Date: 11/21/19
Personnel: CF, CM
Total Depth: 67, 79
Start Time: 1030

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-22 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 67.79 Measuring Point — Depth to water 63.87

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: Added name to well with paint pen.

No clear measuring point, likely due to little to no water being present in the well.

No weight present at well for hydrostatic

chips present on top of casing

Well Conductivity Profile Field data Sheet

Date: 11/21/19
Personnel: CF, CM
Total Depth: 68.26
Start Time: 1039

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-9 Inspection Date 11/21/19 Inspector CE, CM
 Measured Well Depth 68.26 Measuring Point 66 Depth to water 63.17

VISUAL INSPECTION

- | | | | |
|---|---------------------------------------|---------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="checkbox"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="checkbox"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="checkbox"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="checkbox"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="checkbox"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A
- Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: no weight present at well for hydrostave. We later came back
to this well with a weight from MW-7 and after thoroughly decontaminating the weight
we were able to deploy the hydrostave.
Added a clear measuring point
Slight discoloration when small amount of silt is mixed but discoloration
is negligible

Well Conductivity Profile Field data Sheet

Site Name: GL Frasin
Well Identification: MW-10
Static Water Level: 69.94
Stop Time: 1106

Date: 11/2/19
Personnel: CF, CM
Total Depth: 72.02
Start Time: 1103

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-10 Inspection Date 11/21/19 Inspector CE, CM
 Measured Well Depth 72.02 Measuring Point 71 Depth to water 69.94

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: not enough water to deploy hydrolevel, pump will bail
to collect sample

Well Conductivity Profile Field data Sheet

Site Name: G&L Edwin
Well Identification: Southwest - MW
Static Water Level: 62.92
Stop Time: 1136

Date: 11/21/19
Personnel: CF, CM
Total Depth: 70.91
Start Time: 1031

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GLEwin Project Number _____
 Well Identification Southwest - MW Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 70.91 Measuring Point 68 Depth to water 62.92

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | <u>N</u> | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

chips of on top of casing
minor discoloration due to small amount of silt

Well Conductivity Profile Field data Sheet

Site Name: G.L. Erwin
Well Identification: West - MW
Static Water Level: 61.80
Stop Time: 1046

Date: 11/21/19
Personnel: CF, CM
Total Depth: 67.30
Start Time: 1140

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification West - MW Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 67.30 Measuring Point 64 Depth to water 61.80

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: drips present on top of casing

Site Name: Cal Erwin
Well Identification: MW-4
Static Water Level: 63.25
Stop Time: 1202

Date: 11/21/19
Personnel: CF, CM
Total Depth: 73.03
Start Time: 1200

Released to Imaging: 8/17/2023 3:40:54 PM

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-4 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 73.03 Measuring Point 70 Depth to water 63.25

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance?

Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Well Conductivity Profile Field data Sheet

Site Name: Cal Erwin
Well Identification: RW-1
Static Water Level:
Stop Time:

Date: 11/21/19
Personnel: CF, CM
Total Depth: -
Start Time: -

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GLEW Project Number _____
 Well Identification RIS-1 Inspection Date 11/2/19 Inspector CF, CM
 Measured Well Depth _____ Measuring Point _____ Depth to water _____

VISUAL INSPECTION

- | | | | |
|---|----------|----------|------------|
| 1) Is protective sleeve/cover in place and secure? | Y | N | <u>N/A</u> |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | <u>N/A</u> |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | <u>N</u> | N/A |
| 5) Is well cap in place and in good condition? | Y | N | <u>N/A</u> |
| 6) Is measuring point marked or readily recognized? | Y | <u>N</u> | <u>N/A</u> |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A
Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: Well was inaccessible due to pump down well.

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: Mw-29
Static Water Level: 66.83
Stop Time: 1244

Date: 11/21/19
Personnel: CF, CM
Total Depth: 78.60
Start Time: 1240

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification MW-29 Inspection Date 11/21/19 Inspector CF, CM

Measured Well Depth 78.60 Measuring Point 76 Depth to water 66.83

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

- Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.) ☒ Y N N/A
- Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A
- Does bailer/pump travel freely to and from bottom of well? Y N N/A
- Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A
- Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A
- Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A
- Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-3
Static Water Level: 64.46
Stop Time: 1300

Date: 11/21/19
Personnel: CF, CM
Total Depth: 73.30
Start Time: 1253

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-3 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 64.46 Measuring Point 70 Depth to water 64.46

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? ☒ Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

light discoloration due to presence of a small
amount of silt

Site Name: GL Ewin
Well Identification: MW-8
Static Water Level: 67.44
Stop Time: 1314

Date: 11/21/19
Personnel: CF, CM
Total Depth: 76, 72
Start Time: 1306

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-6 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 76.72 Measuring Point 74 Depth to water 67.44

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Well Conductivity Profile Field data Sheet

Site Name: Gl Fawin
Well Identification: MW-5
Static Water Level: 59.75
Stop Time: 1328

Date: 11/21/19
Personnel: CF, CM
Total Depth: 72.51
Start Time: 1323

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-5 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 72.51 Measuring Point 70 Depth to water 59.75

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

minor chips on top of casing

Site Name: GL Erwin
Well Identification: MW-1
Static Water Level: 60.73
Stop Time: 1343

Date: 11/21/19
Personnel: CF, CM
Total Depth: 80.7
Start Time: 1338

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-1 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 80.7 Measuring Point 77 Depth to water 60.73

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|-----|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y <input checked="" type="radio"/> | N/A | |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance?

Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: Minor chips on top of casing
small amount of silt at bottom of well causing minor discoloration

Site Name: C/L Erwin
Well Identification: Mw-2
Static Water Level: 60.74
Stop Time: 1401

Date: 11/21/19
Personnel: CF, CM
Total Depth: 71.65
Start Time: 1356

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-2 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 71.68 Measuring Point 68 Depth to water 60.74

VISUAL INSPECTION

- | | | | |
|---|----------------------------------|---|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <input checked="" type="radio"/> | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N/A

Does water appear discolored or have an unusual odor or appearance? ☒ N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: slight discoloration due to small amount of silt
minor chips on top of casing.

Site Name: GL Ewin
Well Identification: MW-7
Static Water Level: 66.93
Stop Time: 1411

Date: 11/21/19
Personnel: CGM
Total Depth: 71.63
Start Time: 1409

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Well Inspection Checklist and Reporting Form

Site Name/ Location Gil Ewin Project Number _____
 Well Identification MW-7 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 71.63 Measuring Point 70 Depth to water 66.93

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance?

Y ☒ N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: Water depth too shallow, unable to deploy hydroscum,
collected sample using bailer from bottom of well

Site Name: GL Edwin
Well Identification: MW-13
Static Water Level: 66.6
Stop Time: 1444

Date: 11/21/19
Personnel: CF, CM
Total Depth: 70.41
Start Time: 1442

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-13 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 66.6 Measuring Point - Depth to water 70.41

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: Water depth too shallow, unable to deploy hydrolevel

Site Name: CL Erasin
Well Identification: MLW-18
Static Water Level: 79.44
Stop Time: —

Date: 11/21/19
Personnel: CF, CM
Total Depth: 78.5
Start Time: —

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-18 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 78.5 Measuring Point - Depth to water 78.44

VISUAL INSPECTION

- | | | | |
|---|---------------------------------------|---------------------------------------|------------------------------|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N | <input type="checkbox"/> N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <input checked="" type="checkbox"/> Y | <input checked="" type="checkbox"/> N | <input type="checkbox"/> N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ Y ☐ N ☐ N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ Y ☐ N ☐ N/A

Does bailer/pump travel freely to and from bottom of well? ☐ Y ☐ N ☐ N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? ☐ Y ☐ N ☐ N/A

Does the bailer contain excessive amounts of silt or rust? ☐ Y ☐ N ☐ N/A


Does water appear discolored or have an unusual odor or appearance? ☐ Y ☐ N ☐ N/A

Is the lock on the well cover/cap clean and fully functional? ☐ Y ☐ N ☐ N/A

NOTES AND

OBSERVATIONS: not enough water to obtain a reading w/ YSI or to
deploy hydrastave

Site Name: GL Erwin
Well Identification: MW-27
Static Water Level: -
Stop Time: -

Date: 11/21/19
Personnel: CF, CM
Total Depth: 49.58
Start Time: 

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-27 Inspection Date 11/21/2019 Inspector CF, CM
 Measured Well Depth 48.58 Measuring Point — Depth to water —

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | N | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: Well dry; unable to conduct conductivity test or
deploy hydrolevel.

Well Conductivity Profile Field data Sheet

Site Name: GL Ewin
Well Identification: MW-30
Static Water Level: 68.54
Stop Time: 1511

Date: 11/21/19
Personnel: CF, CM
Total Depth: 73.70
Start Time: 1507

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location Al Fawin Project Number _____
 Well Identification MW-30 Inspection Date 11/21/2019 Inspector CE, CM
 Measured Well Depth 73.70 Measuring Point 72 Depth to water 68.54

VISUAL INSPECTION

- | | | | |
|---|----------|----------|-----|
| 1) Is protective sleeve/cover in place and secure? | <u>Y</u> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <u>Y</u> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <u>Y</u> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <u>Y</u> | <u>N</u> | N/A |
| 5) Is well cap in place and in good condition? | <u>Y</u> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <u>Y</u> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <u>Y</u> | <u>N</u> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND

OBSERVATIONS: Well not clearly marked and was subsequently
marked w/ paint pen

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-14
Static Water Level: 71.70
Stop Time: 1523

Date: 11/21/2019
Personnel: CF, CM
Total Depth: 89.97
Start Time: 1520

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-14 Inspection Date 11/21/2019 Inspector CF, CM
 Measured Well Depth 89.97 Measuring Point 85 Depth to water 71.70

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> Y | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <input checked="" type="radio"/> Y | <input checked="" type="radio"/> N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒ Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance?

☒ Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Slight discoloration due to presence of a small
amount of silt

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-19
Static Water Level: 73.01
Stop Time: 1544

Date: 11/21/19
Personnel: cf, CM
Total Depth: 104.55
Start Time: 1536

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Egan Project Number _____
 Well Identification MW-19 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 104.55 Measuring Point 92 Depth to water 73.01

VISUAL INSPECTION

- | | | | |
|---|------------------------------------|------------------------------------|---------------------------|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input type="radio"/> Y | <input checked="" type="radio"/> N | <input type="radio"/> N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> Y | <input type="radio"/> N | <input type="radio"/> N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | <input type="radio"/> Y | <input checked="" type="radio"/> N | <input type="radio"/> N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing? ☒ Y ☐ N ☐ N/A
 (Enter depth to water in the space provided above.)

Does water-level indicator/measuring device travel to bottom of well? ☒ Y ☐ N ☐ N/A
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? ☐ Y ☐ N ☐ N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? ☐ Y ☐ N ☐ N/A

Does the bailer contain excessive amounts of silt or rust? ☐ Y ☒ N ☐ N/A

Does water appear discolored or have an unusual odor or appearance? ☒ Y ☐ N ☐ N/A

Is the lock on the well cover/cap clean and fully functional? ☐ Y ☐ N ☐ N/A

NOTES AND**OBSERVATIONS:**

Well not clearly marked; subsequently marked
with paint pen
Small discoloration due to presence of a small amount of silt

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-21
Static Water Level: 73.6
Stop Time: 1558

Date: 11/21/19
Personnel: CF, CM
Total Depth: 96.17
Start Time: 1552

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-21 Inspection Date 11/21/19 Inspector CF, CM
 Measured Well Depth 96.17 Measuring Point 94 Depth to water 73.6

VISUAL INSPECTION

- | | | | |
|---|----------------------------------|----------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="radio"/> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="radio"/> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="radio"/> | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="radio"/> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="radio"/> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="radio"/> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) ☒ N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) ☒ N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N N/A

Does water appear discolored or have an unusual odor or appearance? ☒ Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND OBSERVATIONS:

Slight discoloration due to presence of a small amount of silt.

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-24
Static Water Level: 49.52
Stop Time: 1611

Date: 11/21/19
Personnel: CF, CM
Total Depth: 62.63
Start Time: 1607

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification MW-24 Inspection Date 11/21/19 Inspector CF, CM

Measured Well Depth 62.63 Measuring Point 56 Depth to water 49.52

VISUAL INSPECTION

- | | | | |
|---|---------------------------------------|---|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="checkbox"/> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="checkbox"/> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="checkbox"/> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="checkbox"/> | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="checkbox"/> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="checkbox"/> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y <input checked="" type="checkbox"/> | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.)

☒ Y ☐ N ☐ N/A

Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y ☐ N ☐ N/A

Does bailer/pump travel freely to and from bottom of well? Y ☐ N ☐ N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y ☐ N ☐ N/A

Does the bailer contain excessive amounts of silt or rust? Y ☒ N ☐ N/A

Does water appear discolored or have an unusual odor or appearance? Y ☒ N ☐ N/A

Is the lock on the well cover/cap clean and fully functional? Y ☐ N ☐ N/A

NOTES AND**OBSERVATIONS:**

Site Name: GL Erwin
Well Identification: MW-32
Static Water Level: 85.83
Stop Time: 1627

Date: 11/22/19
Personnel: CF, CM
Total Depth: 87.0
Start Time: 1623

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-32 Inspection Date 11/21/19 Inspector CP, CM
 Measured Well Depth 87 Measuring Point — Depth to water 85.83

VISUAL INSPECTION

- | | | | |
|---|-------------------------------------|-------------------------------------|-----|
| 1) Is protective sleeve/cover in place and secure? | <input checked="" type="checkbox"/> | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | <input checked="" type="checkbox"/> | N | N/A |
| 3) Is concrete pad in satisfactory condition? | <input checked="" type="checkbox"/> | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | <input checked="" type="checkbox"/> | N | N/A |
| 5) Is well cap in place and in good condition? | <input checked="" type="checkbox"/> | N | N/A |
| 6) Is measuring point marked or readily recognized? | <input checked="" type="checkbox"/> | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | <input checked="" type="checkbox"/> | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

☒

N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒

N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N/A

Does water appear discolored or have an unusual odor or appearance?

Y ☒ N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND

OBSERVATIONS: Water depth too shallow unable to deploy
hydrosleeve

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-23
Static Water Level: 91.11
Stop Time: 1118

Date: 11/2/9
Personnel: CF, CM
Total Depth: 101.52
Start Time: 1110

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-23 Inspection Date 11/22/19 Inspector CF, CM
 Measured Well Depth 101.52 Measuring Point 94 Depth to water 91.11

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing? (Y) N N/A
 (Enter depth to water in the space provided above.)

Does water-level indicator/measuring device travel to bottom of well? (Y) N N/A
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y (N) N/A

Does water appear discolored or have an unusual odor or appearance? (Y) N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

Light discoloration due to small amount of silt
chips present on top of casing

Site Name: GL Erwin
Well Identification: MW-15
Static Water Level: 80.6
Stop Time: ~~1132~~ 1137

Date: 11/22/19
Personnel: CF, CM
Total Depth: 87.37
Start Time: 1132

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-15 Inspection Date 11/22/19 Inspector CE, CM
 Measured Well Depth 87.37 Measuring Point 83 Depth to water 80.6

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

Slight discoloration due to small amount of silt;
minor chips on top of casing

Site Name: GL Irwin
Well Identification: MW-20
Static Water Level: 82.79
Stop Time: 1156

Date: 11/22/19
Personnel: CF, CM
Total Depth: 88.83
Start Time: 1152

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-20 Inspection Date 11/22/19 Inspector CF, CM
 Measured Well Depth 88.83 Measuring Point 86 Depth to water 82.79

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing? (Y) N N/A
 (Enter depth to water in the space provided above.)

Does water-level indicator/measuring device travel to bottom of well? (Y) N N/A
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y (N) N/A

Does water appear discolored or have an unusual odor or appearance? (Y) N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

Slight discoloration due to small amount of silt

Site Name: ~~MEER~~ GL Erwin
Well Identification: MW-12
Static Water Level: 72.66
Stop Time: 1308

Date: 11/22/19
Personnel: CP, CM
Total Depth: 77.49
Start Time: 1306

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-12 Inspection Date 11/22/19 Inspector CF, CM
 Measured Well Depth 77.49 Measuring Point 74 Depth to water 72.66

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) (Y) N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) (Y) N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y (N) N/A

Does water appear discolored or have an unusual odor or appearance? (Y) N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

No slight discoloration due to small amount of silt

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-16
Static Water Level: 72.66
Stop Time: 1308

Date: 11/22/19

Personnel: CE, CM

Total Depth: 77.49

Start Time: 1306

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-16 Inspection Date 11/22/19 Inspector CF CM
 Measured Well Depth 74.41 Measuring Point 71 Depth to water 68.25

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

discoloration due to small amount of silt

Well Conductivity Profile Field data Sheet

Site Name: GL Ensin
Well Identification: MLW-17
Static Water Level: 69.25
Stop Time: 1342

Date: 11/22/19
Personnel: CF, CM
Total Depth: 76.94
Start Time: 1340

[illegible]

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification MW-17 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 76.94 Measuring Point 74 Depth to water 69.25

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
Well Identification: MW-8
Static Water Level: 67.81
Stop Time: 1405

Date: 11/22/19
Personnel: CF, CM
Total Depth: 73.47
Start Time: 1407

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____
 Well Identification MW-B Inspection Date 11/22/19 Inspector CF, CM
 Measured Well Depth 73.47 Measuring Point 70 Depth to water 67.81

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
 (Enter depth to water in the space provided above.) Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
 (Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.) Y N N/A

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

slight discoloration due to presence of silt

Site Name: GL Erwin
Well Identification: MW-11
Static Water Level: 74.93
Stop Time: 1421

Date: 11/22/19
Personnel: C.F. CM
Total Depth: 75.6
Start Time: 1420

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Well Inspection Checklist and Reporting Form

Site Name/ Location G2 Erwin Project Number _____

Well Identification MW-11 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 75.6 Measuring Point 75 Depth to water 74.93

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.)

Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Y N N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Well Conductivity Profile Field data Sheet

Site Name: GL Edwin
Well Identification: MW-25
Static Water Level: 76.50
Stop Time: 1452

Date: 11/22/19
Personnel: CF, CM
Total Depth: 94.30
Start Time: 1446

Well Inspection Checklist and Reporting Form

Site Name/ Location C & L Erwin Project Number _____

Well Identification MW-25 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 94.30 Measuring Point 91 Depth to water 78.50

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing? Y N N/A
(Enter depth to water in the space provided above.)

Does water-level indicator/measuring device travel to bottom of well? Y N N/A
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y N N/A

Does water appear discolored or have an unusual odor or appearance? Y N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND**OBSERVATIONS:**

Site Name: GL Erwin
Well Identification: MW-31
Static Water Level: 80.33
Stop Time: 1504

Date: 11/22/19
Personnel: CF, CM
Total Depth: 82.75
Start Time: 1504

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Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification MW-31 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 82.75 Measuring Point 81 Depth to water 80.33

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.)

Y N N/A
Y N N/A

Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y N N/A

Does water appear discolored or have an unusual odor or appearance?

Y N N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND**OBSERVATIONS:**

Slight discoloration due to small amount of silt

Well Conductivity Profile Field data Sheet

Site Name: GL Erwin
 Well Identification: WW-1 1 of 2
 Static Water Level: 69.78
 Stop Time: 1610

Date: 11/22/19
 Personnel: CF, CM
 Total Depth: 187.80
 Start Time: 1526

Depth (record in two feet intervals)	Conductivity (Denote $\mu\text{S}/\text{cm}$ or MS/cm for each recording)	Temperature (Fahrenheit or Celsius)
70	1.510	20.34
72	1.509	"
74	"	20.35
76	"	"
78	"	20.36
80	1.508	"
82	"	20.37
84	"	"
86	"	"
88	"	20.39
90	"	"
92	"	20.40
94	"	"
96	"	"
98	"	20.42
100	"	20.43
102	"	20.44
104	"	20.45
106	"	"
108	"	"
110	"	20.46
112	"	20.47
114	"	"
116	"	20.48
118	"	20.49
120	1.509	20.50
122	1.508	"
124	"	20.51
126	1.509	20.52
128	"	"
130	"	20.53
132	"	20.54
134	"	20.55
136	"	20.56
138	"	20.57

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification WW-1 1012 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 187.80 Measuring Point 178 Depth to water 69.78

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing? (Y) N N/A
(Enter depth to water in the space provided above.)

Does water-level indicator/measuring device travel to bottom of well? (Y) N N/A
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

Does bailer/pump travel freely to and from bottom of well? Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well? Y N N/A

Does the bailer contain excessive amounts of silt or rust? Y (N) N/A

Does water appear discolored or have an unusual odor or appearance? (Y) N N/A

Is the lock on the well cover/cap clean and fully functional? Y N N/A

NOTES AND
OBSERVATIONS:

Slight discoloration due to presence of a small amount of silt.

Site Name: GL Erwin
Well Identification: WW-1 cont. 2 of 2
Static Water Level: 69.78
Stop Time: 1610

Date: 11/22/19
Personnel: CR, CM
Total Depth: 187.80
Start Time: 1526

Released to Imaging: 8/17/2023 3:40:54 PM

Well Inspection Checklist and Reporting Form

Site Name/ Location GL Erwin Project Number _____

Well Identification WW-1 on 2062 Inspection Date 11/22/19 Inspector CF, CM

Measured Well Depth 187.80 Measuring Point 178 Depth to water 69.78

VISUAL INSPECTION

- | | | | |
|---|---|---|-----|
| 1) Is protective sleeve/cover in place and secure? | Y | N | N/A |
| 2) Are hinges, latches, or locks functional and in good condition? | Y | N | N/A |
| 3) Is concrete pad in satisfactory condition? | Y | N | N/A |
| 4) Is well name or other identification marked clearly on or near the well? | Y | N | N/A |
| 5) Is well cap in place and in good condition? | Y | N | N/A |
| 6) Is measuring point marked or readily recognized? | Y | N | N/A |
| 7) Does well opening/stickup show signs of damage or deterioration? | Y | N | N/A |

PHYSICAL INSPECTION

Does water-level indicator/measuring device travel freely down well casing?
(Enter depth to water in the space provided above.)

☒ Y ☐ N ☐ N/A

Does water-level indicator/measuring device travel to bottom of well?
(Total depth may be found on drilling logs, well completion diagrams, or previous well inspection forms. Enter total depth in the space provided above.)

☒ Y ☐ N ☐ N/A

Does bailer/pump travel freely to and from bottom of well?

Y N N/A

Upon removal from well, does bailer show evidence of damage (gouges, cuts, scrapes) suggestive of well damage from foreign objects in the well?

Y N N/A

Does the bailer contain excessive amounts of silt or rust?

Y ☒ N ☐ N/A

Does water appear discolored or have an unusual odor or appearance?

☒ Y ☐ N ☐ N/A

Is the lock on the well cover/cap clean and fully functional?

Y N N/A

NOTES AND
OBSERVATIONS:

Slight discoloration due to small amount of silt

APPENDIX C

Cumulative Summary of Groundwater Analytical Results



Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-1	2/17/1998	<2.00	220.0	233	---	---	92	---	---	---	---	812	276.00	---
	2/7/2001	<1.00	136.0	440	2.10	2.80	70	16	55.80	11.40	115.0	1,200	---	---
	5/3/2002	<1.00	144.0	428	1.60	3.06	73	103	38.70	8.68	105.0	---	---	<1.00
	10/11/2002	<0.10	155.0	230	---	---	109	69	24.80	7.45	125.0	737	---	<0.10
	12/27/2002	<0.10	149.0	248	---	---	109	77	27.40	5.16	129.0	728	---	<0.10
	2/18/2003	<0.10	147.0	213	---	---	114	59	21.40	5.06	116.0	713	---	<0.10
	6/2/2003	<1.00	132.0	434	1.77	2.99	73	135	47.80	8.62	118.0	1,320	---	<1.00
	8/25/2003	<1.00	144.0	279	1.76	3.39	73	93	31.30	7.17	118.0	856	---	<1.00
	11/5/2003	<1.00	162.0	330	1.94	3.42	79	110	37.70	9.03	114.0	994	---	<1.00
	2/4/2004	<1.00	142.0	390	1.92	3.25	71	117	43.20	10.20	113.0	940	---	<1.00
	5/6/2004	<1.00	260.0	403	1.90	4.80	135	60	18.30	8.93	302.0	1,316	---	<1.00
	8/3/2004	<0.10	155.0	222	---	---	83	64	30.80	6.41	127.0	431	---	<0.10
	8/3/2004	<0.10	158.0	301	---	---	104	101	45.50	672.00	436.0	605	---	<0.10
	2/11/2005	<1.00	146.0	289	2.68	4.30	79	98	33.50	8.18	108.0	840	---	<1.00
	8/5/2005	<1.00	156.0	245	2.08	4.34	90	76	26.70	6.99	125.0	856	---	<1.00
Dup	2/22/2006	<10.00	160.0	180	1.60	3.50	83	56	18.70	5.19	104.0	707	---	<10.00
	2/22/2006	<10.00	170.0	160	1.60	3.50	85	58	20.00	5.23	102.0	840	---	<10.00
	8/24/2006	<10.00	300.0	180	<2.5	3.11	81	57	19.30	4.36	107.0	660	---	<10.00
	2/28/2007	<10.00	170.0	170	1.80	3.60	81	55	18.20	<5.0	103.0	650	---	<10.00
	8/23/2007	<10.00	138.0	420	1.40	2.80	76	102	34.80	5.37	101.0	1,810	---	138.00
Dup	2/20/2008	<5.00	166.0	300	1.90	2.92	82	111	39.70	7.34	104.0	860	---	<5.00
	8/12/2008	<1.53	212.0	217	1.48	3.06	80	58	19.50	5.20	114.0	692	---	<1.53
	2/19/2009	<5.00	160.0	150	2.00	3.00	84	55	19.00	5.30	120.0	610	---	<5.00
	7/29/2009	<5.00	79.0	150	0.95	1.40	41	67	24.00	5.90	110.0	500	---	<5.00
	2/25/2010	<5.00	172.0	167	1.79	3.23	83	58	21.20	4.28	105.0	684	---	<5.00
	2/25/2010	<5.00	192.0	157	1.68	<0.100	84	53	17.60	4.34	103.0	544	---	<5.10
	7/28/2010	<5.00	168.0	147	1.88	2.56	85	51	17.10	3.82	91.6	564	---	<5.00
	2/16/2011	<2.00	165.0	149	1.74	3.12	82	58	18.70	3.98	94.4	510	---	<2.00
	2/16/2011	<2.00	145.0	155	1.74	3.25	82	55	17.90	4.02	91.9	604	---	<2.00
	8/18/2011	<5.00	167.0	127	1.76	3.34	83	51	17.20	2.80	91.4	490	---	<5.00
Dup	2/22/2012	<5.00	153.0	385	1.61	2.70	68	96	33.50	5.12	96.5	1,280	---	<5.00
	8/29/2012	<10.00	149.0	456	1.60	1.48	67	130	44.30	5.61	90.5	1,340	---	<10.0
	2/21/2013	<6.00	141.0	452	1.17	2.24	70	139	45.60	6.39	104.0	1,300	---	<6.00
	2/21/2013	<6.00	141.0	454	1.18	2.26	71	141	44.40	6.30	101.0	1,170	---	<6.00
	8/14/2013	<6.00	140.0	490	1.47	2.33	67	158	53.20	7.07	112.0	1,590	---	<6.00
	4/3/2014	<10.00	182.0	498	1.30	1.73	67	139	48.20	6.33	103.0	1,160	---	<10.00
	10/9/2014	<4.00	168.0	213 J	1.10	2.89 J	80	85.7 J	29.2 J	5.18	105.0	554	---	<4.00
	10/9/2014	<4.00	146.0	427 J	0.92	2.23 J	73	148 J	50.1 J	6.73	107.0	559	---	<4.00
	6/25/2015	---	---	420	<2.00	---	72	---	---	---	---	1,230	---	---
	10/6/2015	---	---	209	<4.00	---	81	---	---	---	---	623	---	---
	6/22/2016	---	---	403	1.27	---	64	---	---	---	---	1,240	---	---
	10/06/2016	---	---	449	1.35	---	79	---	---	---	---	1,240	---	---
	05/23/2017	---	---	366	1.16	---	65	---	---	---	---	1,140	---	---
	10/12/2017	---	---	378	1.22	---	67	---	---	---	---	902	---	---
	5/9/2018	---	---	374	1.29	---	68	---	---	---	---	906	---	---
	10/9/2018	---	---	419	1.41	---	74	---	---	---	---	870	---	---
	6/19/2019	---	---	412	---	---	---	---	---	---	---	1,340	---	---
	11/25/2019	---	---	470	1.42	---	90	---	---	---	---	1,200	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-2	2/17/1998	<2.00	360.0	423	---	---	141	---	---	---	---	1,257	124.00	---
	2/7/2001	<1.00	234.0	570	2.70	5.00	130	124	40.70	10.90	359.0	1,500	---	---
	5/3/2002	<1.00	262.0	349	2.28	5.36	148	21	6.18	8.52	315.0	---	---	<1.00
	10/11/2002	<10.00	250.0	337	---	---	176	18	4.92	7.49	329.0	1,120	---	<0.10
	12/27/2002	<12.00	238.0	319	---	---	142	18	5.16	6.10	339.0	1,110	---	<0.10
	2/18/2003	<0.10	228.0	310	---	---	178	19	6.02	6.30	331.0	1,070	---	<0.10
	6/2/2003	<1.00	206.0	769	2.05	4.43	115	176	52.60	9.94	383.0	1,955	---	<1.00
	8/25/2003	<1.00	242.0	374	2.07	5.14	142	36	10.80	8.49	333.0	1,240	---	<1.00
	11/5/2003	<1.00	232.0	498	2.21	5.13	145	69	21.10	10.10	327.0	1,354	---	<1.00
	2/4/2004	<1.00	230.0	450	2.06	4.97	131	76	25.20	10.70	324.0	1,424	---	<1.00
	5/6/2004	<1.00	150.0	341	1.79	3.23	75	108	38.50	8.38	102.0	984	---	<1.00
	8/3/2004	<0.10	236.0	496	---	---	144	51	34.70	11.00	472.0	811	---	<0.10
	2/11/2005	<1.00	220.0	604	2.79	5.48	130	103	34.50	11.30	324.0	1,462	---	<1.00
	8/5/2005	<1.00	228.0	404	2.24	5.70	154	35	10.30	10.70	341.0	1,120	---	<1.00
	2/22/2006	<10.00	250.0	320	1.70	5.10	150	20	5.84	6.15	259.0	1,150	---	<10.00
	8/24/2006	<10.00	250.0	290	<2.5	3.78	140	26	7.70	4.23	298.0	1,610	---	<10.00
	2/28/2007	<10.00	260.0	280	2.10	5.40	140	21	6.01	6.74	278.0	950	---	<10.00
	8/23/2007	<10.00	226.0	290	1.70	5.30	140	19	5.60	<5	303.0	1,280	---	226.00
	2/20/2008	<5.00	223.0	441	1.94	5.11	143	242	83.20	11.80	329.0	1,190	---	<5.00
	8/12/2008	<1.53	287.0	331	1.54	5.39	144	21	5.84	6.53	308.0	1,080	---	<1.53
	2/19/2009	<5.00	240.0	310	1.80	5.30	160	21	6.10	7.20	350.0	1,100	---	<5.00
	7/29/2009	<5.00	200.0	730	1.50	4.60	130	16	4.60	3.10	160.0	1,900	---	<5.00
	2/25/2010	<5.00	255.0	380	1.39	5.78	157	27	8.51	4.72	333.0	1,130	---	<5.00
	7/28/2010	<5.00	275.0	273	1.58	4.68	167	21	5.56	4.29	354.0	1,010	---	<5.00
	2/16/2011	<2.00	250.0	305	1.26	5.30	154	48	13.90	5.08	276.0	1,050	---	<2.00
	8/18/2011	<5.00	251.0	259	1.52	5.56	158	25	6.98	3.48	263.0	1,090	---	<5.00
	8/18/2011	<5.00	272.0	255	1.38	5.76	135	21	5.36	4.08	276.0	1,090	---	<5.00
	2/22/2012	<5.00	203.0	857	1.30	4.61	111	23	5.96	4.42	251.0	2,340	---	<5.00
	8/29/2012	<10.00	165.0	1,180	1.29	2.19	84	335	105.00	8.09	236.0	3,360	---	<10.00
	2/21/2013	<6.00	185.0	934	0.99	4.48	106	238	72.80	7.31	282.0	2,260	---	<6.00
	8/14/2013	<6.00	177.0	1,140	1.36	4.29	113	292	105.00	8.41	264.0	2,780	---	<6.00
	4/3/2014	<10.00	277.0	548	1.18	4.77	148	57	18.60	5.42	297.0	132	---	<10.00
	10/9/2014	<4.00	260.0	220	0.81	5.96 J	173	32	8.90	5.75	274.0	939	---	<4.00
	6/25/2015	---	---	204	<2.00	---	155	---	---	---	---	863	---	---
	10/6/2015	---	---	217	<8.00	---	159	---	---	---	---	952	---	---
	6/22/2016	---	---	998	0.83	---	74	---	---	---	---	2,590	---	---
	10/06/2016	---	---	778	1.21	---	117	---	---	---	---	1,970	---	---
	05/23/2017	---	---	264	0.92	---	144	---	---	---	---	1,130	---	---
	10/12/2017	---	---	289	1.01	---	139	---	---	---	---	1,270	---	---
	5/9/2018	---	---	418	1.07	---	135	---	---	---	---	1,210	---	---
	10/9/2018	---	---	401	0.95	---	144	---	---	---	---	1,100	---	---
	10/9/2018	---	---	556	0.94	---	131	---	---	---	---	1,220	---	---
	6/19/2019	---	---	726	---	---	---	---	---	---	---	1,910	---	---
	11/25/2019	---	---	525	1.17	---	210	---	---	---	---	1,210	---	---
Dup														
Dup														

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-3	2/17/1998	<2.00	410.0	983	--	--	173	--	--	--	--	2,261	232	--
	2/7/2001	<8.00	278.0	890	3.40	7.30	200	57	18.70	20.40	648.0	2,100	---	--
	5/2/2002	<1.00	298.0	735	2.84	7.57	213	28	8.39	24.70	42.8	--	---	<1.00
	5/3/2002	<1.00	146.0	767	2.90	7.39	207	38	11.50	25.50	28.2	--	---	<1.00
	10/11/2002	<0.10	288.0	753	---	---	272	29	9.18	20.60	622.0	1,960	---	<0.10
	12/27/2002	<0.10	288.0	727	---	---	231	27	7.34	19.90	698.0	1,950	---	<0.10
	2/18/2003	<0.10	277.0	762	---	---	180	25	7.84	16.40	580.0	1,950	---	<0.10
	6/2/2003	<1.00	270.0	802	3.07	8.06	203	65	20.00	18.50	728.0	2,720	---	<1.00
	8/26/2003	<1.00	282.0	799	3.00	7.99	198	55	18.00	16.40	597.0	2,320	---	<1.00
	11/6/2003	<1.00	286.0	746	2.92	7.26	214	37	11.10	24.90	577.0	2,092	---	<1.00
	11/6/2003	<1.00	132.0	521	1.85	2.92	98	120	39.50	9.15	200.0	1,392	---	<1.00
	2/4/2004	<1.00	296.0	755	2.74	7.36	205	43	13.10	27.10	546.0	2,275	---	<1.00
	5/7/2004	<1.00	300.0	774	2.57	7.02	197	39	11.20	22.20	528.0	2,140	---	<1.00
	8/3/2004	<0.10	291.0	798	---	---	155	22	16.70	25.80	794.0	1,640	---	<0.10
	2/11/2005	<1.00	292.0	879	4.61	9.47	196	47	14.50	19.10	590.0	2,240	---	<1.00
	8/4/2005	<1.00	282.0	922	2.86	8.17	217	48	14.70	21.10	630.0	1,950	---	<1.00
	2/22/2006	<10.00	250.0	1,100	1.60	8.50	190	47	15.30	15.10	446.0	3,860	---	<10.00
	8/24/2006	<10.00	260.0	750	2.60	6.43	190	25	7.68	11.90	565.0	1,990	---	<10.00
	2/28/2007	<10.00	270.0	850	2.20	8.50	190	31	9.02	18.00	516.0	1,800	---	<10.00
	8/23/2007	<10.00	204.0	1,000	1.50	9.50	190	228	80.00	<50	673.0	2,330	---	204.00
	2/20/2008	<5.00	246.0	1,070	3.18	8.38	222	80	26.20	19.10	721.0	2,480	---	<5.00
Dup	8/13/2008	<5.00	222.0	1,180	2.59	8.27	210	47	14.30	17.50	896.0	2,700	---	<5.00
	2/19/2009	<5.00	220.0	1,300	2.00	7.80	220	50	16.00	20.00	920.0	2,800	---	<5.00
	7/29/2009	<5.00	190.0	1,600	1.60	7.60	210	140	47.00	26.00	770.0	3,400	---	<5.00
	2/24/2010	<5.00	237.0	1,380	1.49	8.81	248	65	17.50	15.10	938.0	2,670	---	<5.00
	7/28/2010	<5.00	221.0	1,230	1.68	7.12	259	85	24.60	14.10	857.0	2,680	---	<5.00
	2/16/2011	<2.00	238.0	1,300	1.40	8.97	1,290	135	41.30	14.40	746.0	2,430	---	<2.00
	8/18/2011	<5.00	227.0	1,250	1.42	9.18	887	76	23.20	11.20	700.0	2,750	---	<5.00
	2/22/2012	<5.00	235.0	1,260	1.40	7.39	252	104	32.60	13.20	809.0	2,800	---	<5.00
	2/22/2012	<5.00	230.0	1,470	1.53	8.75	224	132	39.20	13.40	770.0	2,940	---	<5.00
	8/29/2012	<10.00	283.0	1,200	1.72	6.42	271	56	16.40	13.10	745.0	2,600	---	<10.00
	2/21/2013	<6.00	252.0	1,100	1.26	8.87	261	131	40.20	13.40	770.0	2,500	---	<6.00
	8/14/2013	<6.00	275.0	1,330	1.40	7.59	309	254	87.90	12.30	925.0	2,890	---	<6.00
	4/3/2014	<10.00	356.0	839	1.52	9.26	346	45	12.70	15.30	665.0	2,280	---	<10.00
	10/9/2014	<4.00	291.0	961	0.75	7.36 J	300	106	32.80	16.00	671.0	3,400	---	<4.00
	6/25/2015	---	---	568	<2.00	---	282	---	---	---	---	2,020	---	---
	10/6/2015	---	---	518	<20.0	---	290	---	---	---	---	1,710 J	---	---
	10/6/2015	---	---	575	<20.0	---	291	---	---	---	---	1,690 J	---	---
	6/23/2016	---	---	1,560	1.31	---	178	---	---	---	---	4,580	---	---
	10/06/2016	---	---	846	1.44	---	273	---	---	---	---	1,980	---	---
	05/23/2017	---	---	456	1.21	---	242	---	---	---	---	1,500	---	---
Dup	10/12/2017	---	---	615	1.21	---	223	---	---	---	---	1,550	---	---
	5/9/2018	---	---	533	1.45	---	214	---	---	---	---	1,660	---	---
	10/9/2018	---	---	586	1.06	---	224	---	---	---	---	1,510	---	---
	6/19/2019	---	---	521	---	---	---	---	---	---	---	1,250	---	---
	11/25/2019	---	---	486	3.43	---	202	---	---	---	---	1,540	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-4	2/17/1998	<2.00	510.0	372	---	---	136	---	---	---	---	1,268	---	---
	2/7/2001	<1.00	286.0	1,200	1.70	4.70	100	248	84.70	24.00	506.0	2,600	---	---
	5/3/2002	<1.00	250.0	868	1.00	4.72	163	137	48.40	40.70	441.0	---	---	<1.00
	10/14/2002	<0.10	342.0	381	---	---	124	9	2.48	38.40	405.0	1,220	---	<0.10
	10/14/2002	<0.10	358.0	372	---	---	116	9	2.38	37.40	409.0	1,260	---	<0.10
	12/27/2002	<0.10	288.0	505	---	---	114	21	4.42	50.60	461.0	1,450	---	<0.10
	12/27/2002	<0.10	158.0	115	---	---	139	56	23.00	4.94	94.4	594	---	<0.10
	2/18/2003	<0.10	264.0	691	---	---	118	32	7.50	59.00	474.0	1,610	---	<0.10
	5/30/2003	<1.00	236.0	1,020	<2.0	5.53	796	113	29.70	59.80	664.0	2,670	---	<1.00
	8/25/2003	<1.00	192.0	1,170	<2.0	5.43	73	143	35.00	82.10	616.0	2,935	---	<1.00
	11/7/2003	<1.00	194.0	1,620	<2.0	5.48	77	228	61.40	83.60	629.0	3,035	---	<1.00
	2/5/2004	<1.00	170.0	1,730	<2.0	5.93	79	277	75.90	108.00	630.0	3,380	---	<1.00
	5/6/2004	<1.00	158.0	2,150	<3.0	5.94	88	407	99.90	99.70	593.0	4,090	---	<1.00
	8/3/2004	<0.10	150.0	2,730	---	---	125	632	191.00	124.00	832.0	6,810	---	<0.10
	2/11/2005	<1.00	136.0	4,520	<1.0	5.19	127	1,060	289.00	156.00	983.0	9,030	---	<1.00
	8/4/2005	<1.00	132.0	6,580	<1.0	5.34	166	1,650	375.00	142.00	1,440.0	13,200	---	<1.00
	2/23/2006	<10.00	130.0	9,100	<2.5	10.00	220	1,510	326.00	141.00	1,070.0	17,900	---	<10.00
	8/25/2006	<10.00	140.0	12,000	<5	6.13	290	1,550	364.00	136.00	1,890.0	17,500	---	<10.00
	2/28/2007	<10.00	170.0	10,000	<250	<200	<2000	1,550	310.00	160.00	1,520.0	21,800	---	<10.00
	8/21/2007	<10.00	167.0	10,000	0.30	9.00	490	1,630	443.00	112.00	3,080.0	26,000	---	167.00
	2/20/2008	<5.00	210.0	8,220	1.33B	6.05	587	1,200	372.00	143.00	3,160.0	18,200	---	<5.00
	8/13/2008	<5.00	263.0	6,270	<1.5	6.64	607	770	209.00	97.30	2,510.0	15,100	---	<5.00
	2/19/2009	<5.00	300.0	4,900	<0.5	5.60	620	580	160.00	72.00	2,200.0	11,000	---	<5.00
	7/29/2009	<5.00	320.0	3,700	<0.5	6.40	580	380	110.00	63.00	1,800.0	8,400	---	<5.00
	2/25/2010	<5.00	338.0	3,590	0.23	5.94	478	378	107.00	40.00	1,830.0	7,940	---	<5.00
	7/28/2010	<5.00	283.0	3,840	0.45	4.00	419	273	62.80	30.40	1,840.0	8,820	---	<5.00
	2/16/2011	<2.00	337.0	2,480	0.54	4.08	1,240	179	53.60	30.60	1,300.0	5,840	---	<2.00
	8/18/2011	<5.00	358.0	2,530	0.68	5.39	479	156	41.40	23.90	1,240.0	4,870	---	<5.00
	2/22/2012	<5.00	292.0	3,250	0.72	5.30	220	656	204.00	27.80	1,180.0	8,100	---	<5.00
	8/28/2012	<5.00	227.0	3,860	0.54	3.06	315	880	263.00	27.80	1,050.0	9,420	---	<5.00
	2/21/2013	<6.00	303.0	2,450	0.58	5.53	331	761	228.00	27.50	1,070.0	5,170	---	<6.00
	8/14/2013	<6.00	257.0	3,420	0.66	3.83	324	711	231.00	28.00	1,160.0	6,500	---	<6.00
	4/3/2014	<10.00	380.0	2,010	<0.5	3.83	353	185	52.00	23.30	1,140.0	3,360	---	<10.00
	10/9/2014	<4.00	259.0	2,330	0.29	3.71 J	312	420	130.00	26.70	1,020.0	5,870	---	<4.00
	6/25/2015	---	---	1,870	<2.00	---	451	---	---	---	---	4,100	---	---
	10/6/2015	---	---	2,760	<80.0	---	330	---	---	---	---	7,120 J	---	---
	6/23/2016	---	---	3,030	0.65	---	221	---	---	---	---	7,460	---	---
	10/6/2016	---	---	3,050	0.59	---	270	---	---	---	---	5,860	---	---
	05/23/2017	---	---	2,180	0.59	---	343	---	---	---	---	5,570	---	---
	10/13/2017	---	---	2,120	0.61	---	367	---	---	---	---	4,320	---	---
	5/9/2018	---	---	2,440	0.39	---	322	---	---	---	---	4,460	---	---
	10/9/2018	---	---	2,550	7.26	---	400	---	---	---	---	3,970	---	---
	6/19/2019	---	---	2,550	---	---	---	---	---	---	---	6,390	---	---
	11/24/2019	---	---	1,180	4.85	---	251	---	---	---	---	2,090	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-5	2/17/1998	<2.00	360.0	408	---	---	151	---	---	---	---	1,219	116.00	---
	2/7/2001	<1.00	214.0	570	1.60	4.80	140	123	40.80	20.30	331.0	1,500	---	---
	5/3/2002	<1.00	238.0	335	0.96	5.36	162	37	11.10	27.30	287.0	---	---	<1.00
	10/11/2002	<0.10	232.0	337	---	---	173	32	10.00	20.70	305.0	1,100	---	<0.10
	12/27/2002	<0.10	232.0	337	---	---	171	31	8.55	20.60	319.0	1,210	---	<0.10
	2/18/2003	<0.10	210.0	319	---	---	176	27	8.48	16.50	231.0	1,110	---	<0.10
	6/2/2003	<1.00	196.0	588	1.23	4.86	142	132	40.50	21.20	364.0	1,644	---	<0.10
	8/26/2003	<1.00	210.0	447	1.32	4.85	141	95	29.00	23.40	291.0	1,480	---	<1.00
	11/6/2003	<1.00	214.0	456	1.43	5.11	152	94	29.30	24.80	282.0	1,430	---	<1.00
	2/4/2004	<1.00	206.0	504	1.38	5.31	147	95	31.40	27.30	289.0	1,410	---	<1.00
Dup	5/7/2004	<1.00	222.0	381	1.02	5.98	151	56	16.30	25.70	301.0	1,250	---	<1.00
	5/7/2004	<1.00	242.0	330	1.04	5.75	152	51	14.60	27.40	292.0	1,168	---	<1.00
	8/3/2004	<0.10	229.0	461	---	---	155	48	31.30	31.10	435.0	968	---	<0.10
	2/11/2005	<1.00	288.0	408	2.58	8.36	243	46	13.30	30.60	433.0	1,598	---	<1.00
	8/4/2005	<1.00	256.0	423	1.83	6.82	201	61	18.60	20.30	354.0	1,334	---	<1.00
Dup	8/4/2005	<1.00	242.0	394	1.82	6.74	200	49	14.80	21.50	341.0	1,220	---	<1.00
	2/22/2006	<10.00	220.0	800	1.30	6.60	160	222	69.40	14.00	274.0	2,670	---	<10.00
	8/24/2006	<10.00	190.0	930	<5	5.09	140	145	47.60	13.10	295.0	1,280	---	<10.10
	2/28/2007	<10.00	300.0	730	3.50	5.20	340	37	10.60	18.40	301.0	1,310	---	<10.20
	8/23/2007	<10.00	115.0	360	1.80	5.20	170	50	18.40	16.40	291.0	2,500	---	<10.30
Dup	2/20/2008	<5.00	255.0	505	2.90	5.61	168	127	42.10	19.60	353.0	1,500	---	<10.40
	8/13/2008	<5.00	220.0	438	1.77	6.20	191	63	19.30	23.90	362.0	1,300	---	<10.50
	2/19/2009	<5.00	220.0	390	1.60	6.20	200	63	19.00	25.00	310.0	1,200	---	<10.60
	7/29/2009	<5.00	210.0	490	1.40	6.20	200	110	35.00	23.00	280.0	1,500	---	<10.70
	2/25/2010	<5.00	223.0	326	1.02	6.27	195	58	19.00	16.50	232.0	1,120	---	<10.80
	7/28/2010	<5.00	235.0	272	1.15	4.61	189	51	14.60	13.80	257.0	1,130	---	<10.90
	7/28/2010	<5.00	233.0	283	1.11	5.17	192	61	19.20	16.70	269.0	1,180	---	<10.10
	2/16/2011	<2.00	206.0	272	1.12	5.87	413	65	18.80	14.90	240.0	1,010	---	<2.00
	8/18/2011	<5.00	224.0	325	1.22	<0.0300	175	59	17.60	13.20	233.0	1,160	---	<5.00
	2/22/2012	<5.00	174.0	1,140	0.86	4.06	95	55	16.00	14.90	272.0	3,330	---	<5.00
	8/29/2012	<10.00	186.0	1,380	1.04	2.92	94	319	102.00	7.45	246.0	3,640	---	<10.00
	2/21/2013	<6.00	159.0	1,350	0.76	3.99	101	224	69.20	10.50	339.0	3,110	---	<6.00
	8/14/2013	<6.00	161.0	1,470	1.01	3.57	102	370	125.00	9.47	281.0	3,780	---	<6.00
	4/3/2014	<10.00	263.0	627	1.33	5.91	165	172	56.60	11.70	296.0	1,460	---	<10.00
	10/9/2014	<4.00	185.0	957	0.57	3.99 J	124	263	84.80	11.10	344.0	3,750	---	<4.00
Dup	6/25/2015	---	---	801	<2.00	---	176	---	---	---	---	2,160	---	---
	10/6/2015	---	---	480	<8.00	---	153	---	---	---	---	1,370 J	---	---
	6/23/2016	---	---	1,090	0.71	---	94	---	---	---	---	3,340	---	---
	10/06/2016	---	---	1,250	0.89	---	105	---	---	---	---	2,880	---	---
	10/06/2016	---	---	1,220	0.94	---	103	---	---	---	---	3,080	---	---
	05/23/2017	---	---	899	0.68	---	120	---	---	---	---	2,810	---	---
	10/12/2017	---	---	1,080	0.71	---	95	---	---	---	---	1,900	---	---
	5/9/2018	---	---	1,110	0.83	---	104	---	---	---	---	2,140	---	---
	10/10/2018	---	---	863	0.84	---	149	---	---	---	---	1,670	---	---
	6/19/2019	---	---	464	---	---	---	---	---	---	---	1,360	---	---
	11/24/2019	---	---	289	1.77	---	193	---	---	---	---	1,120	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-6	2/7/2001	<1.00	200.0	1,800	3.30	5.40	140	323	108.00	18.80	657.0	3,800	--	--
	5/2/2002	<1.00	264.0	503	3.68	7.04	183	25	7.29	17.40	475.0	--	--	<1.00
	10/14/2002	<0.10	262.0	620	--	--	206	19	5.34	17.50	556.0	1,670	--	<0.10
	12/27/2002	<36.00	218.0	620	--	--	192	21	6.08	13.60	584.0	1,650	--	<0.10
	2/18/2003	<16.00	238.0	638	---	---	298	22	6.43	11.80	524.0	1,700	---	<0.10
	6/2/2003	<1.00	244.0	772	3.24	6.62	181	69	23.30	14.40	614.0	2,040	---	<1.00
	8/26/2003	<1.00	246.0	607	2.95	6.65	179	36	11.60	12.20	525.0	2,370	---	<1.00
	11/6/2003	<1.00	250.0	649	3.28	6.89	191	46	13.90	18.10	503.0	1,932	---	<1.00
	2/4/2004	<1.00	266.0	713	3.15	7.20	189	49	15.40	19.90	517.0	2,210	---	<1.00
	5/7/2004	<1.00	266.0	696	2.92	6.74	182	55	16.10	16.00	503.0	2,095	---	<1.00
	8/3/2004	<0.10	260.0	718	---	---	240	23	21.70	21.70	825.0	1,430	---	<0.10
	2/11/2005	<1.00	270.0	660	3.76	7.84	192	30	9.13	19.50	531.0	1,774	---	<1.00
	8/4/2005	<1.00	268.0	764	3.16	7.83	206	57	18.80	15.30	576.0	1,650	---	<1.00
	2/22/2006	<10.00	270.0	610	2.40	7.90	180	24	7.41	10.90	380.0	1,570	---	<10.00
	8/24/2006	<10.00	260.0	590	3.00	5.96	170	108	35.00	9.38	448.0	1,880	---	<10.00
	2/28/2007	<10.00	280.0	530	3.00	7.80	170	21	6.14	12.80	397.0	1,550	---	<10.00
	8/23/2007	<10.00	265.0	1,100	2.30	7.60	150	30	11.70	8.35	440.0	3,970	---	265.00
	2/20/2008	<5.00	227.0	799	3.05	7.43	163	181	62.40	15.70	492.0	1,930	---	<5.00
	8/13/2008	<5.00	238.0	563	2.56	7.83	176	23	6.57	14.40	558.0	1,640	---	<5.00
	2/19/2009	<5.00	370.0	1,200	2.00	6.10	150	140	47.00	16.00	590.0	3,200	---	<6.00
	7/29/2009	<5.00	210.0	1,200	2.10	7.00	160	37	11.00	16.00	550.0	2,700	---	<5.00
	2/24/2010	<5.00	243.0	780	2.07	7.89	193	40	10.60	9.02	558.0	1,910	---	<5.00
	7/28/2010	<5.00	247.0	702	2.23	8.99	204	31	8.93	10.30	591.0	1,740	---	<5.00
	2/16/2011	<2.00	214.0	768	1.56	6.36	385	31	8.32	9.81	538.0	1,800	---	<2.00
	8/18/2011	<5.00	243.0	657	2.00	8.73	205	81	25.20	7.68	492.0	1,830	---	<5.00
	2/22/2012	<5.00	273.0	685	2.28	9.03	228	86	27.70	8.62	504.0	1,810	---	<5.00
	8/29/2012	<10.00	315.0	849	2.20	5.30	207	91	27.30	7.54	498.0	1,930	---	<10.00
	2/21/2013	<6.00	253.0	812	1.71	8.30	221	26	7.77	8.68	496.0	1,900	---	<6.00
	8/14/2013	<6.00	245.0	865	2.06	7.96	241	214	74.90	8.92	628.0	1,870	---	<6.00
	4/3/2014	<10.00	329.0	607	2.34	9.32	265	41	12.20	9.04	517.0	1,880	---	<10.00
	10/9/2014	<4.00	286.0	560	1.21	8.11 J	265	42	12.80	10.00	532.0	1,730	---	<4.00
	6/25/2015	---	---	465	<2.00	---	273	---	---	---	---	1,690	---	---
	10/6/2015	---	---	431	<20.0	---	251	---	---	---	---	1,470 J	---	---
	10/6/2015	---	---	642	<20.0	---	238	---	---	---	---	1,710 J	---	---
	6/23/2016	---	---	1,220	1.73	---	159	---	---	---	---	2,690	---	---
	10/06/2016	---	---	357	1.89	---	256	---	---	---	---	1,290	---	---
	05/23/2017	---	---	319	1.51	---	211	---	---	---	---	1,400	---	---
Dup	05/23/2017	---	---	336	1.50	---	207	---	---	---	---	1,370	---	---
	10/12/2017	---	---	336	1.67	---	197	---	---	---	---	1,250	---	---
	5/9/2018	---	---	365	1.24	---	177	---	---	---	---	1,340	---	---
	10/9/2028	---	---	413	1.59	---	190	---	---	---	---	1,200	---	---
	6/19/2019	---	---	335	---	---	---	---	---	---	---	1,250	---	---
	11/25/2019	---	---	487	3.55	---	186	---	---	---	---	1,500	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-7	2/7/2001	<1.00	238.0	500	3.20	4.10	100	80	27.30	10.40	326.0	1,300	---	---
	5/2/2002	<1.00	244.0	466	2.94	4.18	106	47	17.00	8.42	307.0	---	---	<1.00
	10/11/2002	<0.10	242.0	408	---	---	128	40	13.50	6.70	316.0	1,120	---	<0.10
	12/27/2002	<0.10	232.0	452	---	---	109	56	19.20	5.82	353.0	1,220	---	<0.10
	2/17/2003	<0.10	200.0	603	---	---	134	91	30.90	5.86	339.0	1,440	---	<0.10
	6/2/2003	<1.00	242.0	388	3.23	4.33	115	40	12.50	6.16	370.0	1,216	---	<1.00
	8/25/2003	<1.00	232.0	367	2.77	4.07	105	39	12.30	7.14	309.0	1,244	---	<1.00
	11/5/2003	<1.00	240.0	343	3.08	4.16	117	37	11.40	7.67	304.0	1,186	---	<1.00
	11/5/2003	<1.00	238.0	355	3.04	4.19	117	35	10.80	7.63	298.0	1,170	---	<1.00
	2/4/2004	<1.00	262.0	320	3.10	4.25	112	31	9.87	7.95	298.0	1,138	---	<1.00
Dup	5/6/2004	<1.00	260.0	339	2.90	4.00	112	35	10.30	6.81	282.0	1,172	---	<1.00
	8/3/2004	<0.10	248.0	328	---	---	126	23	12.10	7.55	436.0	734	---	<0.10
	2/11/2005	<1.00	238.0	332	3.76	4.65	123	32	9.99	7.75	296.0	1,128	---	<1.00
	8/5/2005	<1.00	240.0	430	3.10	4.36	144	58	19.20	8.43	325.0	1,180	---	<1.00
	8/5/2005	<1.00	236.0	387	3.14	4.30	144	39	12.50	6.51	315.0	1,100	---	<1.00
	2/22/2006	<10.00	290.0	240	2.60	3.30	120	31	9.98	4.89	227.0	1,120	---	<10.00
	8/24/2006	<10.00	260.0	230	3.10	2.97	110	23	7.82	2.96	245.0	952	---	<10.00
	2/28/2007	<10.00	270.0	240	3.30	3.60	100	21	6.57	<5	230.0	885	---	<10.00
	8/23/2007	<10.00	261.0	250	2.70	3.20	110	19	8.00	<5	247.0	2,320	---	261.00
	2/20/2008	<5.00	251.0	269	2.40	3.18	122	38	12.40	5.41	261.0	930	---	<5.00
Dup	8/13/2008	<5.00	274.0	251	2.41	3.21	121	25	7.64	4.86	273.0	887	---	<5.00
	2/19/2009	<5.00	250.0	240	2.90	3.30	100	26	8.30	5.10	260.0	880	---	<5.00
	7/29/2009	<5.00	260.0	260	2.90	3.90	110	40	13.00	5.80	250.0	950	---	<5.00
	2/24/2010	<5.00	263.0	282	2.54	4.08	106	34	9.10	3.56	310.0	1,000	---	<5.00
	7/28/2010	<5.00	259.0	279	2.61	3.39	113	29	9.03	3.60	265.0	950	---	<5.00
	2/16/2011	<2.00	212.0	286	2.55	4.07	123	33	9.39	3.64	246.0	910	---	<2.00
	8/18/2011	<5.00	248.0	268	2.76	4.16	121	28	8.56	2.31	234.0	1,060	---	<5.00
	8/18/2011	<5.00	262.0	265	2.58	4.27	105	29	8.22	3.32	255.0	1,010	---	<5.00
	2/22/2012	<5.00	262.0	287	2.80	4.50	107	33	9.87	3.45	266.0	952	---	<5.00
	8/28/2012	<10.0	275.0	287	2.90	2.88	123	27	8.41	3.20	252.0	962	---	<10.00
Dup	2/21/2013	<6.00	257.0	258	2.30	4.76	134	29	9.11	3.79	284.0	904	---	<6.00
	8/14/2013	<6.00	244.0	285	2.74	4.92	143	32	9.27	3.92	283.0	962	---	<6.00
	4/3/2014	<10.0	307.0	303	3.08	5.48	149	31	8.89	3.80	305.0	1,020	---	<10.00
	10/9/2014	<4.00	257.0	252	1.74	4.90 J	146	28	8.31	3.75	286.0	955	---	<4.00
	6/25/2015	---	---	227	2.44	---	163	---	---	---	---	890	---	---
	10/6/2015	---	---	218	<8.00	---	139	---	---	---	---	940	---	---
	6/23/2016	---	---	222	2.78	---	131	---	---	---	---	954	---	---
	6/23/2016	---	---	259	2.66	---	128	---	---	---	---	979	---	---
	10/6/2016	---	---	222	2.39	---	145	---	---	---	---	873	---	---
	05/23/2017	---	---	207	1.94	---	129	---	---	---	---	868	---	---
Dup	10/12/2017	---	---	393	1.54	---	111	---	---	---	---	1,300	---	---
	5/9/2018	---	---	155	2.21	---	125	---	---	---	---	795	---	---
	10/9/2018	---	---	182	2.32	---	141	---	---	---	---	771	---	---
	6/19/2019	---	---	147	---	---	---	---	---	---	---	806	---	---
	11/25/2019	---	---	221	1.67	---	134	---	---	---	---	780	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard	(mg/L)	NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-8	2/7/2001	<20.00	240.0	900	3.20	6.60	160	79	24.50	12.70	604.0	2,100	---	---
	5/2/2002	<1.00	236.0	818	2.65	6.68	168	95	29.20	13.00	527.0	---	---	<1.00
	10/14/2002	<0.10	250.0	842	---	---	194	52	20.40	10.80	597.0	1,920	---	<0.10
	12/27/2002	<0.10	233.0	833	---	---	173	60	20.00	8.64	627.0	2,000	---	<0.10
	2/18/2003	<0.10	213.0	833	---	---	185	53	17.60	7.13	489.0	1,930	---	<0.10
	6/2/2003	<1.00	244.0	777	3.29	6.82	173	60	18.90	9.47	650.0	1,968	---	<1.00
	8/25/2003	<1.00	244.0	738	2.85	6.42	159	59	17.30	11.40	534.0	1,996	---	<1.00
	11/7/2003	<1.00	248.0	722	3.27	6.65	171	58	17.90	12.20	525.0	1,972	---	<1.00
	2/4/2004	<1.00	254.0	764	3.77	7.85	161	55	18.20	13.20	522.0	2,038	---	<1.00
	5/6/2004	<8.000	262.0	774	3.36	7.43	164	56	16.90	10.70	501.0	1,968	---	<1.00
	8/4/2004	<0.10	246.0	771	---	---	222	29	21.50	11.00	707.0	1,530	---	<0.10
	2/11/2005	<1.00	238.0	818	4.28	8.46	167	58	19.00	13.20	543.0	2,080	---	<1.00
	8/5/2005	<1.00	236.0	888	3.29	7.66	184	72	23.30	11.70	574.0	2,230	---	<1.00
	2/22/2006	<10.00	230.0	810	2.40	7.90	170	55	18.00	8.05	390.0	1,740	---	<10.00
	8/24/2006	<10.00	280.0	710	3.20	5.51	170	51	16.50	6.00	470.0	926	---	<10.00
	2/28/2007	<10.00	260.0	740	3.30	7.30	170	68	20.70	8.59	381.0	1,780	---	<10.00
	8/22/2007	<10.00	259.0	700	3.00	7.40	170	49	18.50	5.35	449.0	1,980	---	259.00
	2/20/2008	<5.00	240.0	711	3.66	7.15	188	82	26.40	9.48	461.0	1,780	---	<5.00
	8/12/2008	<1.53	357.0	668	2.99	6.74	171	64	19.70	8.49	541.0	1,750	---	<1.53
	2/19/2009	<5.00	230.0	700	3.60	6.40	170	64	21.00	8.80	500.0	1,700	---	<5.00
	7/29/2009	<5.00	290.0	740	3.50	6.80	170	60	19.00	9.50	490.0	1,800	---	<5.00
	2/24/2010	<5.00	255.0	754	3.16	6.58	160	56	16.10	5.07	510.0	1,760	---	<5.00
	7/28/2010	<5.00	263.0	711	3.43	5.67	164	54	17.00	4.75	533.0	1,720	---	<5.00
	2/16/2011	<2.00	218.0	749	3.11	6.73	182	54	15.80	4.91	466.0	1,760	---	<2.0
	8/18/2011	<5.00	257.0	676	3.21	7.56	148	47	15.00	3.68	440.0	1,770	---	<5.00
	2/22/2012	<5.00	264.0	751	3.27	6.46	167	62	19.50	5.24	512.0	1,720	---	<5.00
	2/20/2013	<6.00	271.0	643	3.17	7.01	203	47	15.00	4.66	443.0	1,590	---	<6.00
	8/14/2013	<6.00	262.0	665	3.48	7.52	216	55	16.70	5.27	492.0	1,530	---	<6.00
	4/3/2014	<10.00	336.0	674	4.01	8.17	206	54	16.30	5.20	450.0	1,560	---	<10.00
	10/10/2014	<4.00	284.0	527	2.29	7.65	194	51	15.90	5.42	454.0	1,550	---	<4.00
	6/24/2015	---	---	528	3.42	---	213	---	---	---	---	1,440	---	---
	10/6/2015	---	---	518	<20.0	---	202	---	---	---	---	1,460 J	---	---
	6/22/2016	---	---	507	3.63	---	181	---	---	---	---	1,540	---	---
	10/06/2016	---	---	478	3.16	---	212	---	---	---	---	1,480	---	---
	05/23/2017	---	---	418	2.91	---	192	---	---	---	---	1,280	---	---
	10/12/2017	---	---	413	3.48	---	188	---	---	---	---	836	---	---
	5/9/2018	---	---	357	1.76	---	175	---	---	---	---	1,250	---	---
	10/10/2018	---	---	412	3.45	---	181	---	---	---	---	1,290	---	---
	10/10/2018	---	---	419	3.40	---	178	---	---	---	---	1,310	---	---
	6/19/2019	---	---	353	---	---	---	---	---	---	---	1,250	---	---
	11/25/2019	---	---	350	3.17	---	168	---	---	---	---	1,310	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-9	8/28/2012	<10.00	268.0	684	3.49	5.06	176	83	25.40	5.70	483.0	1,670	---	<10.00
	5/1/2002	<1.00	142.0	439	1.88	3.26	106	99	35.80	9.93	188.0	---	---	<1.00
	10/14/2002	<0.10	137.0	443	---	---	119	88	33.10	10.40	216.0	1,240	---	<0.10
	12/27/2002	<0.10	124.0	434	---	---	120	94	33.80	6.22	192.0	1,080	---	<0.10
	2/18/2003	<0.10	105.0	461	---	---	126	99	34.10	5.62	200.0	1,190	---	<0.10
	5/30/2003	<1.0	122.0	514	1.82	3.01	102	113	37.90	7.98	240.0	1,324	---	<1.00
	8/25/2003	<1.00	114.0	562	1.58	2.98	95	120	39.20	9.45	219.0	1,428	---	<1.00
	11/7/2003	<1.00	132.0	468	1.68	2.86	96	119	39.00	9.18	200.0	1,250	---	<1.00
	2/5/2004	<1.00	124.0	610	2.32	4.18	98	125	41.10	10.30	221.0	1,345	---	<1.00
	2/5/2004	<1.00	120.0	581	1.23	2.19	54	132	43.90	10.10	203.0	1,325	---	<1.00
Dup	5/5/2004	<1.00	122.0	616	1.39	2.68	91	142	50.00	9.65	212.0	1,428	---	<1.00
Dup	5/5/2004	<1.00	124.0	599	1.43	2.72	92	144	46.70	9.82	223.0	1,476	---	<1.00
	8/3/2004	<0.10	110.0	691	---	---	115	184	62.90	10.50	279.0	1,530	---	<0.10
	2/11/2005	<1.00	98.0	1,960	3.63	5.36	103	495	164.00	21.50	388.0	3,920	---	<1.00
	8/4/2005	<1.00	218.0	10,000	1.54	5.15	224	2,280	686.00	42.80	1,390.0	27,000	---	<1.00
	2/23/2006	<10.00	110.0	13,000	<2.5	19.00	430	2,050	438.00	47.80	1,450.0	24,300	---	<10.00
	8/25/2006	<10.00	260.0	10,000	<2.5	3.75	360	1,330	360.00	38.30	1,920.0	24,100	---	<10.00
	2/28/2007	<10.00	140.0	8,700	<0.5	4.60	430	1,180	276.00	46.90	1,510.0	17,700	---	<10.00
	8/23/2007	<10.00	157.0	6,900	<0.1	3.70	400	934	283.00	<50	2,290.0	17,100	---	157.00
	2/20/2008	<5.00	229.0	6,270	<0.3	<0.2	447	867	293.00	27.70	2,190.0	12,500	---	<5.00
	8/12/2008	<1.53	257.0	4,910	1.19	3.74	443	720	236.00	36.20	1,760.0	11,400	---	<1.53
Dup	2/19/2009	<5.00	310.0	4,300	0.75	3.00	490	600	190.00	25.00	1,900.0	9,700	---	<5.00
	7/29/2009	<5.00	250.0	3,300	0.91	3.40	500	420	150.00	32.00	1,400.0	7,800	---	<5.00
	2/24/2010	<5.00	304.0	2,070	1.00	3.56	452	249	65.50	9.21	1,220.0	4,370	---	<5.00
	7/28/2010	<5.00	312.0	1,260	1.41	2.38	413	136	46.70	7.65	848.0	3,100	---	<5.00
	2/16/2011	<2.00	311.0	911	1.55	3.03	562	93	29.90	6.80	600.0	1,830	---	<2.00
	8/18/2011	<5.00	285.0	689	2.06	2.95	294	63	21.10	3.92	484.0	1,940	---	<5.00
	2/22/2012	<5.00	269.0	693	2.39	3.19	236	51	17.90	5.23	508.0	1,720	---	<5.00
	8/28/2012	<10.00	366.0	607	2.67	1.72	206	62	15.90	4.50	433.0	1,680	---	<10.00
	2/21/2013	<6.00	250.0	561	2.35	2.94	192	40	13.30	4.26	423.0	1,460	---	<6.00
	8/14/2013	<6.00	224.0	603	2.91	2.68	173	40	12.90	4.32	459.0	1,410	---	<6.00
	4/3/2014	<10.0	265.0	628	1.97	2.25	157	38	11.90	4.47	429.0	1,560	---	<10.00
	10/9/2014	<4.00	211.0	552	1.92	2.67 J	159	36	10.70	4.91	460.0	2,020	---	<4.00
	6/25/2015	---	---	676	2.59	---	184	---	---	---	---	1,890	---	---
	10/6/2015	---	---	1,230	<40.0	---	170	---	---	---	---	2,430 J	---	---
	6/22/2016	---	---	1,070	1.84	---	184	---	---	---	---	2,080	---	---
	6/22/2016	---	---	1,060	1.82	---	186	---	---	---	---	2,510	---	---
	10/6/2016	---	---	977	1.67	---	235	---	---	---	---	2,220	---	---
	05/23/2017	---	---	560	1.32	---	254	---	---	---	---	1,780	---	---
	10/13/2017	---	---	393	1.56	---	253	---	---	---	---	1,300	---	---
	5/9/2018	---	---	251	1.59	---	223	---	---	---	---	1,200	---	---
	10/9/2018	---	---	246	1.43	---	206	---	---	---	---	1,070	---	---
	6/19/2019	---	---	205	---	---	---	---	---	---	---	988	---	---
	11/25/2019	---	---	274	1.29	---	156	---	---	---	---	1,040	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-10	10/14/2002	<0.10	204.0	71	--	--	145	42	22.80	7.77	87.3	593	--	<0.10
	12/27/2002	<0.10	196.0	70	---	---	149	68	23.10	7.69	92.8	529	---	<0.10
	2/18/2003	<0.10	184.0	65	---	---	159	67	22.80	3.04	90.7	552	---	<0.10
	6/2/2003	<1.00	198.0	56	1.60	4.31	134	76	22.40	4.95	80.4	624	---	<1.00
	8/26/2003	<1.00	188.0	56	1.58	4.10	125	71	23.40	6.29	72.3	688	---	<1.00
	11/7/2003	<1.00	200.0	71	1.69	4.19	131	70	23.50	5.80	69.3	638	---	<1.00
	2/5/2004	<1.00	196.0	101	1.68	4.22	121	76	25.70	6.29	73.8	674	---	<1.00
	5/7/2004	<1.00	174.0	186	1.40	3.80	111	93	30.10	6.34	78.3	736	---	<1.00
	8/3/2004	<0.10	144.0	328	---	---	118	106	49.50	7.70	106.0	796	---	<0.10
	2/11/2005	<1.00	112.0	1,110	3.44	5.86	93	357	115.00	14.00	157.0	2,295	---	<1.00
	8/4/2005	<1.00	112.0	1,500	1.32	4.02	95	419	139.00	11.50	186.0	3,420	---	<1.00
	2/22/2006	<10.00	89.0	2,000	<0.50	6.50	98	520	158.00	13.80	180.0	6,180	---	<10.00
	8/25/2006	<10.00	110.0	2,200	<2.5	3.24	97	660	201.00	13.70	253.0	7,520	---	<10.00
	2/28/2007	<10.00	360.0	2,200	0.80	4.20	100	601	168.00	16.90	224.0	6,140	---	<10.00
	8/22/2007	<10.00	74.9	2,200	0.50	6.00	110	585	189.00	<50	270.0	7,270	---	74.90
	2/20/2008	<5.00	253.0	1,930	0.75	3.30	109	551	186.00	17.80	280.0	4,620	---	<5.00
	8/12/2008	<1.53	800.0	1,700	1.75	3.16	108	430	154.00	15.40	271.0	4,540	---	<1.53
	2/20/2009	<5.00	370.0	1,600	0.76	2.70	130	410	150.00	15.00	300.0	4,300	---	<5.00
	7/29/2009	<5.00	250.0	2,000	0.67	3.10	140	470	170.00	19.00	300.0	5,800	---	<5.00
	2/24/2010	<5.00	126.0	2,840	0.46	3.26	126	670	228.00	12.70	399.0	5,720	---	<6.00
	7/28/2010	<5.00	89.1	2,260	0.82	2.48	86	842	292.00	12.10	501.0	6,840	---	<6.00
	2/16/2011	<2.00	112.0	3,880	0.47	3.66	1,670	884	307.00	17.00	586.0	7,790	---	<2.00
	8/18/2011	<5.00	110.0	3,990	0.63	4.30	172	1,000	298.00	15.90	671.0	8,290	---	<5.00
	2/22/2012	<5.00	122.0	4,590	0.70	4.89	185	1,050	330.00	19.00	857.0	14,000	---	<5.00
	8/29/2012	<5.00	127.0	4,110	0.57	4.00	176	1,010	322.00	19.30	897.0	12,400	---	<5.00
	2/21/2013	<6.00	123.0	3,940	0.48	4.61	204	909	274.00	17.20	860.0	7,100	---	<6.00
	8/14/2013	<6.00	133.0	4,260	0.61	4.05	226	806	271.00	18.30	991.0	9,470	---	<6.00
	4/3/2014	<10.00	175.0	3,320	0.81	4.42	270	774	237.00	18.90	930.0	9,500	---	<10.00
	10/9/2014	<4.00	154.0	2,730	0.19	3.96 J	292	618	200.00	18.00	963.0	7,930	---	<4.00
	6/25/2015	---	---	2,410	<2.00	---	625	---	---	---	---	5,740	---	---
	10/6/2015	---	---	2,280	<40.0	---	338	---	---	---	---	5,610 J	---	---
	6/22/2016	---	---	1,960	<0.0360	---	289	---	---	---	---	5,440	---	---
	10/06/2016	---	---	2,070	0.72	---	321	---	---	---	---	5,220	---	---
	05/23/2017	---	---	1,940	0.476 J	---	288	---	---	---	---	3,970	---	---
	10/13/2017	---	---	1,920	0.51	---	290	---	---	---	---	2,320	---	---
	5/9/2018	---	---	2,270	0.46	---	279	---	---	---	---	4,010	---	---
	10/9/2018	---	---	2,720	7.49	---	319	---	---	---	---	4,520	---	---
	6/19/2019	Not Sampled, Insufficient Water in Well												
	11/25/2019	---	---	3,040	7.50	---	336	---	---	---	---	7,510	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-11	4/30/2002													
	10/11/2002													
	12/26/2002													
	2/17/2003													
	5/29/2003													
	8/22/2003													
	11/5/2003													
	2/3/2004													
	5/5/2004													
	8/2/2004													
	11/23/2004													
	2/9/2005													
	8/4/2005													
	2/22/2006													
	2/28/2007													
	8/22/2007													
	2/20/2008													
	8/12/2008													
	2/19/2009	<5.00	370.0	1,700	0.80	3.00	100	430	150.00	17.00	380.0	4,500	---	5.00
	7/29/2009	<5.00	490.0	1,800	0.72	3.80	120	420	140.00	19.00	340.0	5,000	---	<5.00
	2/16/2011	<2.00	115.0	1,720	0.61	3.40	760	365	116.00	9.65	336.0	3,420	---	<2.00
	8/18/2011													
	2/22/2012	<5.00	131.0	2,240	0.65	3.64	145	588	176.00	12.20	456.0	6,470	---	<5.00
	8/28/2012	<5.00	146.0	2,450	0.67	2.14	128	563	169.00	12.60	460.0	7,980	---	<5.00
	2/20/2013	<6.00	128.0	2,540	0.52	3.20	137	711	208.00	13.20	502.0	5,420	---	<6.00
	8/14/2013	<6.00	117.0	3,070	0.59	3.22	140	779	260.00	15.10	579.0	6,620	---	<6.00
	4/3/2014	<10.00	151.0	2,940	0.79	3.74	161	820	252.00	16.20	576.0	9,080	---	<10.00
	10/10/2014													
	6/24/2015	---	---	3,250	<2.0	---	200	---	---	---	---	7,810	---	---
	10/6/2015													
	6/22/2016	---	---	2,740	<0.0360	---	157	---	---	---	---	6,090	---	---
	10/06/2016	---	---	3,000	<0.0360	---	183	---	---	---	---	6,220	---	---
	05/23/2017													
	10/12/2017													
	5/8/2018													
	10/8/2018													
	6/19/2019													
	11/24/2019	---	---	816	1.46	---	269	---	---	---	---	6,390	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	5/2/2002	<1.00	88.0	1,120	1.37	4.09	45	431	153.00	17.70	123.0	---	---	<1.00
MW-12	10/11/2002	<0.10	93.0	1,370	---	---	48	438	161.00	15.40	127.0	2,860	---	<0.10
	12/27/2002	<0.10	78.0	1,520	---	---	49	507	181.00	14.10	151.0	3,460	---	<0.10
	2/17/2003	<0.10	68.0	1,530	---	---	52	461	170.00	13.30	136.0	3,980	---	<0.10
	6/2/2003	<1.00	72.0	1,380	<2.00	5.06	46	491	157.00	15.30	151.0	3,250	---	<1.00
	8/26/2003	<1.00	66.0	1,550	<2.00	4.94	46	525	178.00	14.80	156.0	3,855	---	<1.00
	11/6/2003	<1.00	80.0	1,610	2.25	4.81	50	568	189.00	20.10	159.0	3,860	---	<1.00
	2/5/2004	<1.00	74.0	1,680	2.19	5.13	46	525	181.00	21.60	160.0	2,910	---	<1.00
	5/7/2004	<1.00	70.0	1,620	<3.00	5.13	54	541	178.00	18.50	152.0	3,085	---	<1.00
	8/3/2004	<0.10	66.0	1,680	---	---	55	680	252.00	31.10	211.0	4,300	---	<0.10
	2/11/2005	<1.00	82.0	1,770	2.04	6.08	48	503	176.00	17.80	138.0	3,080	---	<1.00
	8/5/2005	<1.00	72.0	1,800	1.66	4.69	49	547	194.00	15.20	149.0	4,180	---	<1.00
	2/22/2006	<10.00	73.0	1,700	0.70	6.70	48	415	135.00	14.90	129.0	4,890	---	<10.00
	8/24/2006	<10.00	87.0	1,700	0.93	3.06	48	463	157.00	12.20	140.0	6,190	---	<10.00
	2/28/2007	<10.00	95.0	1,900	1.30	6.90	65	521	154.00	16.10	155.0	5,840	---	<10.00
	8/22/2007	<10.00	108.0	1,800	0.70	6.00	52	476	151.00	11.90	143.0	6,470	---	108.00
	2/20/2008	<5.00	83.8	2,020	0.93	3.99	71	589	211.00	18.10	179.0	4,580	---	<5.00
	8/12/2008	<1.53	77.0	2,140	1.68	3.84	86	647	221.00	17.90	212.0	5,160	---	<1.53
	2/19/2009	<5.00	120.0	2,600	0.97	3.20	120	810	280.00	23.00	340.0	5,400	---	<5.00
	7/29/2009	<5.00	94.0	2,700	1.20	3.80	120	700	270.00	28.00	330.0	7,000	---	<5.00
	2/24/2010	<5.00	89.1	2,120	0.61	3.74	69	626	218.00	12.90	214.0	4,290	---	<5.00
	7/28/2010	<5.00	83.0	1,560	1.47	2.84	164	681	240.00	14.20	279.0	5,680	---	<5.00
	2/16/2011	<2.00	84.6	2,430	0.75	3.91	74	528	184.00	11.10	190.0	4,390	---	<2.00
	8/18/2011	<5.00	85.5	2,110	0.91	4.08	63	560	183.00	10.50	168.0	5,000	---	<5.00
	2/22/2012	<5.00	91.2	2,270	0.99	4.36	67	650	217.00	13.40	209.0	4,110	---	<5.00
	8/28/2012	<10.00	98.0	2,040	0.84	2.52	58	589	190.00	12.20	173.0	5,690	---	<10.00
	2/20/2013	<6.00	88.2	2,060	0.77	3.81	59	658	204.00	12.90	186.0	3,790	---	<6.00
	8/14/2013	<6.00	86.9	1,930	0.79	3.82	65	596	203.00	13.30	180.0	4,550	---	<6.00
	4/3/2014	<10.00	110.0	2,130	1.18	4.21	60	650	194.00	13.00	177.0	1,300	---	<10.00
	10/10/2014	<4.00	83.6	1,890	0.27	3.92	55	595	208.00	13.50	180.0	6,290	---	<4.00
	6/24/2015	---	---	2,070	<2.0	---	74	---	---	---	---	5,730	---	---
	10/6/2015	---	---	1,960	<40.0	---	118	---	---	---	---	4,650 J	---	---
	6/22/2016	---	---	1,880	<0.0360	---	53	---	---	---	---	3,950	---	---
	10/6/2016	---	---	1,960	0.70	---	62	---	---	---	---	4,200	---	---
	10/6/2016	---	---	2,040	0.66	---	62	---	---	---	---	5,290	---	---
Dup	05/23/2017	---	---	550	0.369 J	---	51	---	---	---	---	4,080	---	---
	10/12/2017	---	---	1,780	<0.0360	---	48	---	---	---	---	3,050	---	---
	5/9/2018	---	---	1,810	1.95	---	53	---	---	---	---	2,830	---	---
	10/10/2018	---	---	1,980	4.36	---	58	---	---	---	---	3,140	---	---
	10/10/2018	---	---	1,980	4.48	---	59	---	---	---	---	3,390	---	---
	6/19/2019	---	---	1,920	---	---	---	---	---	---	---	6,870	---	---
	11/25/2019	---	---	1,950	<0.601	---	82	---	---	---	---	6,270	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
MW-13	NMWQCC Standard (mg/L)	NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	5/2/2002	<1.00	122.0	277	2.31	4.38	131	125	44.30	10.20	65.6	--	---	<1.00
	10/11/2002	<0.10	115.0	337	---	---	124	135	46.50	9.47	88.6	1,210	---	<0.10
	12/27/2002	<0.10	104.0	408	---	---	132	160	55.20	9.71	84.5	1,260	---	<0.10
	2/17/2003	<0.10	80.0	443	---	---	144	152	54.90	8.88	108.0	1,370	---	<0.10
	6/2/2003	<1.00	102.0	421	2.27	4.43	122	153	56.00	11.00	90.9	1,260	---	<1.00
	8/26/2003	<1.00	92.0	500	2.10	4.23	115	179	66.00	12.00	95.6	1,360	---	<1.00
	11/6/2003	<1.00	98.0	492	2.25	4.42	125	193	68.60	14.30	91.5	1,434	---	<1.00
	2/5/2004	<1.00	96.0	543	2.30	4.56	120	179	65.60	15.40	98.3	1,220	---	<1.00
	5/7/2004	<1.00	98.0	496	2.04	4.14	116	184	62.20	12.80	89.3	1,278	---	<1.00
	8/3/2004	<0.10	95.0	532	---	---	116	225	77.30	15.00	111.0	1,410	---	<0.10
	2/11/2005	<1.00	100.0	491	2.19	5.36	117	171	61.70	13.30	92.3	1,260	---	<1.00
	8/5/2005	<1.00	96.0	759	2.29	5.11	125	217	70.80	12.70	103.0	1,550	---	<1.00
	2/22/2006	<10.00	89.0	590	1.70	4.80	120	177	61.20	11.50	91.8	2,090	---	<10.00
	8/24/2006	<10.00	150.0	760	<2.5	3.58	120	228	78.70	10.90	107.0	2,590	---	<10.00
	2/28/2007	<10.00	90.0	880	2.00	5.20	140	262	84.80	14.60	113.0	3,060	---	<10.00
	8/22/2007	<10.00	129.0	980	1.60	4.00	130	279	94.70	11.60	122.0	3,480	---	129.00
	2/20/2008	<5.00	209.0	1,260	1.57	4.02	153	362	145.00	20.10	172.0	3,070	---	<5.00
	8/13/2008	<5.00	141.0	1,410	2.33	1.53	154	389	155.00	20.10	176.0	4,940	---	<5.00
	2/19/2009	<5.00	130.0	1,800	1.50	3.10	180	580	200.00	24.00	240.0	4,700	---	5.00
	7/29/2009	<5.00	120.0	1,800	1.40	4.10	400	540	220.00	27.00	210.0	5,900	---	<5.00
	2/24/2010	<5.00	91.1	1,570	1.05	3.53	150	452	139.00	13.00	160.0	3,400	---	<5.00
	7/28/2010	<5.00	89.1	4,340	1.08	3.01	921	468	136.00	12.10	156.0	4,420	---	<5.00
	2/16/2011	<2.00	82.7	1,630	1.36	3.88	1,680	392	150.00	14.00	170.0	4,440	---	<2.00
	8/18/2011	<5.00	87.7	1,640	1.57	4.04	166	404	138.00	11.80	156.0	4,100	---	<5.00
	2/22/2012	<5.00	88.9	1,580	1.46	4.21	120	478	154.00	14.10	174.0	3,930	---	<5.00
	8/28/2012	<10.00	119.0	1,570	1.49	2.50	155	455	154.00	14.40	179.0	4,130	---	<10.00
	2/20/2013	<6.00	113.0	1,400	1.26	3.78	150	428	139.00	13.40	165.0	3,300	---	<6.00
	8/18/2013	<6.00	103.0	1,420	1.43	3.75	156	386	150.00	14.90	176.0	3,930	---	<6.00
	4/3/2014	<10.00	130.0	1,160	1.92	3.98	156	370	125.00	13.10	154.0	4,360	---	<10.00
	10/10/2014	<4.00	101.0	1,020	0.83	3.78	148	326	117.00	12.60	143.0	3,500	---	<4.00
	6/25/2015	---	---	934	2.67	---	177	---	---	---	---	2,730	---	---
	10/6/2015	---	---	937	<20.0	---	152	---	---	---	---	2,700 J	---	---
	6/23/2016	---	---	866	1.78	---	123	---	---	---	---	2,370	---	---
	10/6/2016	---	---	951	1.31	---	146	---	---	---	---	2,390	---	---
	05/23/2017	---	---	832	0.91	---	127	---	---	---	---	1,800	---	---
	10/12/2017	---	---	797	1.13	---	123	---	---	---	---	1,790	---	---
	5/9/2018	---	---	770	0.100 U	---	134	---	---	---	---	1,590	---	---
	10/10/2018	---	---	918	1.25	---	147	---	---	---	---	2,020	---	---
	6/19/2019	---	---	817	---	---	---	---	---	---	---	3,000	---	---
	11/25/2019	---	---	913	0.89	---	199	---	---	---	---	2,560	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-14	11/5/2003	<1.00	100.0	3,500	<4.00	6.58	525	951	324.00	45.30	732.0	7,315	---	<1.00
	2/4/2004	<1.00	74.0	3,910	<3.00	6.01	559	966	320.00	46.10	840.0	7,720	---	<1.00
	5/6/2004	<1.00	86.0	3,970	<4.00	5.54	594	997	350.00	42.50	836.0	9,560	---	<1.00
	8/4/2004	<0.10	78.0	4,430	---	---	895	1,350	455.00	60.30	1,220.0	11,500	---	<0.10
	2/11/2005	<1.00	80.0	6,120	3.50	5.99	752	1,180	370.00	56.80	1,250.0	8,860	---	<1.00
	8/5/2005	<1.00	86.0	6,480	1.84	5.04	882	1,230	400.00	46.30	1,440.0	9,570	---	<1.00
	2/22/2006	<10.00	81.0	5,300	<0.50	11.00	700	914	253.00	34.10	885.0	12,100	---	<10.00
	2/22/2006	<10.00	82.0	5,000	<0.50	<40	690	916	253.00	34.00	884.0	11,600	---	<10.00
	8/24/2006	<10.00	85.0	5,600	<5	3.74	690	942	266.00	27.80	1,370.0	11,300	---	<10.00
	2/28/2007	<10.00	95.0	5,200	<0.5	4.30	620	758	193.00	36.90	1,060.0	12,400	---	<10.00
Dup	8/22/2007	<10.00	92.2	4,700	0.30	3.90	610	823	249.00	<50	1,420.0	11,700	---	92.20
	2/20/2008	<5.00	108.0	4,910	3.14	3.70	674	847	272.00	25.70	1,510.0	10,300	---	<5.00
	8/12/2008	<1.53	101.0	4,400	1.32	3.50	668	781	237.00	38.20	1,650.0	10,300	---	<1.53
	2/19/2009	<5.00	100.0	4,200	1.20	2.50	760	780	230.00	38.00	1,600.0	9,000	---	<5.00
	2/19/2009	<5.00	100.0	4,200	1.20	2.40	760	700	220.00	24.00	1,700.0	8,800	---	<5.00
	7/29/2009	<5.00	110.0	4,100	1.40	2.90	830	690	200.00	39.00	1,500.0	11,000	---	<5.00
	2/24/2010	<5.00	107.0	4,280	1.04	3.36	844	752	218.00	18.90	1,480.0	9,530	---	<5.00
	7/28/2010	<5.00	107.0	4,290	1.18	2.17	84	844	256.00	15.10	1,660.0	9,500	---	<5.00
	2/16/2011	<2.00	85.4	5,070	0.71	0.42	1,470	902	294.00	21.40	1,650.0	11,200	---	<2.00
	8/18/2011	<13.10	109.0	7,490	0.27	3.65	1,010	1,410	318.00	20.30	2,280.0	12,800	---	<5.00
Dup	2/22/2012	<5.00	108.0	7,610	0.46	4.17	597	1,480	423.00	26.20	2,540.0	18,000	---	<5.00
	8/28/2012	<10.00	113.0	7,730	0.70	2.48	816	1,390	389.00	23.00	2,330.0	22,100	---	<10.00
	2/20/2013	<6.00	103.0	8,420	0.74	3.76	819	1,470	368.00	28.00	2,370.0	14,300	---	<6.00
	8/14/2013	<6.00	102.0	8,030	1.08	4.53	708	1,470	423.00	28.40	2,890.0	15,900	---	<6.00
	8/14/2013	<6.00	102.0	8,090	0.97	3.99	736	1,520	431.00	29.50	2,950.0	16,600	---	<6.00
	4/3/2014	<10.00	133.0	8,710	1.25	4.52	721	1,470	393.00	27.00	3,030.0	8,460	---	<10.00
	4/3/2014	<10.00	133.0	9,430	0.73	3.63	668	1,520	394.00	28.70	2,940.0	19,900	---	<10.00
	10/10/2014	<4.00	103.0	7,610	1.77	4.28	<1.00	1,270	384.00	33.50	2,640.0	19,000	---	<4.00
	6/25/2015	---	---	7,870	<2.00	---	1,000	---	---	---	---	15,100	---	---
	6/25/2015	---	---	8,500	<2.00	---	1,050	---	---	---	---	17,200	---	---
Dup	10/6/2015	---	---	8,320	<80.0	---	645	---	---	---	---	16,700 J	---	---
	6/22/2016	---	---	7,950	0.64	---	534	---	---	---	---	15,700	---	---
	10/06/2016	---	---	8,590	0.83	---	552	---	---	---	---	22,900	---	---
	05/23/2017	---	---	8,000	0.54	---	486	---	---	---	---	15,600	---	---
	10/12/2017	---	---	7,890	0.52	---	485	---	---	---	---	13,500	---	---
	5/9/2018	---	---	8,730	0.100 U	---	437	---	---	---	---	17,500	---	---
	10/10/2018	---	---	10,600	26.90	---	575	---	---	---	---	18,400	---	---
	6/19/2019	---	---	10,700	---	---	---	---	---	---	---	26,500	---	---
	11/25/2019	---	---	13,400	25.10	---	1,460	---	---	---	---	28,000	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-15	11/5/2003	DRY												
	2/3/2004	DRY												
	5/5/2004	DRY												
	8/2/2004	DRY												
	11/23/2004	DRY												
	2/9/2005	DRY												
	8/4/2005	NS - Insufficient Water Column												
	2/22/2006	NS - Insufficient Water Column												
	2/28/2007	<10.00	170.0	90	2.20	2.20	71	57	19.80	6.03	52.9	575	---	<10.00
	8/22/2007	<10.00	146.0	150	1.80	2.10	65	66	24.10	5.98	60.2	652	---	146.00
	2/20/2008	<5.00	117.0	487	1.68	2.19	61	161	62.20	10.50	88.1	1,500	---	<5.00
	8/12/2008	<1.53	101.0	792	1.81	2.38	68	238	92.00	13.30	120.0	2,370	---	<1.53
	2/19/2009	<5.00	100.0	840	1.30	2.20	74	290	110.00	14.00	110.0	2,000	---	<5.00
	7/29/2009	<5.00	83.0	1,000	1.30	2.70	85	270	110.00	15.00	130.0	3,300	---	<5.00
	2/25/2010	<5.00	99.2	1,120	0.97	2.84	74	301	116.00	12.50	135.0	2,450	---	<5.00
	7/28/2010	<5.00	91.1	801	1.16	2.02	152	337	110.00	11.10	128.0	3,350	---	<5.00
	2/16/2011	<2.00	96.4	1,230	1.05	2.73	84	293	110.00	11.40	124.0	2,810	---	<2.00
	8/18/2011	<5.00	97.0	1,110	1.20	2.84	83	293	103.00	9.52	115.0	3,720	---	<5.00
	2/22/2012	<5.00	98.4	1,200	1.21	2.93	86	325	106.00	10.90	124.0	3,390	---	<5.00
	8/24/2012	<10.00	108.0	1,430	1.13	2.43	84	357	133.00	13.40	147.0	3,640	---	<10.00
	8/24/2012	<5.00	107.0	1,420	1.11	2.42	85	361	131.00	13.20	148.0	4,160	---	<5.00
	2/20/2013	<6.00	101.0	1,170	1.04	2.65	86	330	117.00	12.10	135.0	2,790	---	<6.00
	8/15/2013	<6.00	96.9	1,010	1.19	2.92	93	237	121.00	12.70	143.0	3,180	---	<6.00
	4/3/2014	<10.00	128.0	1,790	1.43	2.76	85	289	104.00	11.00	127.0	3,620	---	<10.00
	4/3/2014	<10.00	127.0	1,030	0.93	2.01	79	293	99.80	11.80	123.0	3,560	---	<10.00
	10/10/2014	<4.00	98.5	896	0.61	2.58	81	293	108.00	11.90	129.0	1,830	---	<4.00
	6/24/2015	---	---	896	<2.00	---	101	---	---	---	---	2,420	---	---
	10/6/2015	---	---	869	<20.0	---	99	---	---	---	---	2,400 J	---	---
	6/22/2016	---	---	815	0.93	---	76	---	---	---	---	1,840	---	---
	10/06/2016	---	---	840	1.14	---	87	---	---	---	---	2,030	---	---
	05/23/2017	---	---	764	0.80	---	72	---	---	---	---	2,170	---	---
	10/12/2017	---	---	692	0.94	---	69	---	---	---	---	1,410	---	---
	5/9/2018	---	---	652	1.40	---	73	---	---	---	---	1,280	---	---
	10/10/2018	---	---	722	1.11	---	77	---	---	---	---	1,510	---	---
	6/19/2019	---	---	626	---	---	---	---	---	---	---	1,050	---	---
	11/25/2019	---	---	603	2.84	---	73	---	---	---	---	1,940	---	---
Dup														

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L) MW-16	11/6/2003	NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	2/4/2004	<1.00	188.0	863	1.79	5.65	150	183	55.60	14.20	372.0	2,100	---	<1.00
	5/7/2004	<1.00	172.0	937	2.19	6.59	123	235	76.80	15.20	299.0	2,200	---	<1.00
	8/3/2004	<0.10	158.0	1,010	---	---	159	250	87.50	13.50	382.0	2,560	---	<0.10
	2/11/2005	<1.00	180.0	944	2.40	7.24	151	198	62.40	10.90	344.0	2,260	---	<1.00
	8/5/2005	<1.00	230.0	568	1.99	5.14	146	134	46.90	8.70	249.0	1,420	---	<1.00
	2/22/2006	<10.00	180.0	590	1.30	5.20	110	120	39.10	7.17	207.0	1,770	---	<10.00
	8/24/2006	<10.00	490.0	500	<2.5	3.17	89	123	40.60	4.93	207.0	1,460	---	<10.00
	2/28/2007	<10.00	220.0	410	1.60	4.60	110	72	22.20	6.46	228.0	1,200	---	<10.00
	8/22/2007	<10.00	296.0	360	1.40	3.60	87	83	29.90	<5	215.0	1,280	---	296.00
	2/20/2008	<5.00	190.0	338	1.31	2.91	88	141	47.90	6.53	154.0	990	---	<5.00
	8/12/2008	<1.53	220.0	536	1.36	3.34	86	112	37.40	6.75	221.0	1,660	---	<1.53
	2/19/2009	<5.00	190.0	710	1.30	4.10	110	130	42.00	8.70	340.0	1,900	---	<5.00
	7/29/2009	<5.00	170.0	810	1.30	4.90	140	140	46.00	9.90	330.0	2,200	---	<5.00
	2/24/2010	<5.00	194.0	866	1.05	4.75	132	173	46.90	5.73	318.0	1,980	---	<5.00
	7/28/2010	<5.00	197.0	369	2.38	4.43	159	157	50.50	6.60	404.0	2,050	---	<5.00
	2/16/2011	<2.00	197.0	862	1.18	5.13	260	138	39.80	5.67	347.0	1,990	---	<2.00
	8/18/2011	<5.00	211.0	775	1.18	5.80	137	128	39.50	4.47	331.0	2,360	---	<5.00
	2/22/2012	<5.00	211.0	874	1.34	6.12	139	158	45.00	5.64	396.0	2,090	---	<5.00
	8/28/2012	<10.00	294.0	879	1.21	3.14	127	237	70.40	7.14	254.0	2,850	---	<10.00
	2/20/2013	<6.00	238.0	816	1.15	5.42	159	207	67.80	6.99	304.0	1,900	---	<6.00
	8/14/2013	<6.00	224.0	907	1.28	5.78	162	228	90.50	8.13	236.0	2,100	---	<6.00
	4/3/2014	<10.00	266.0	755	1.51	6.09	162	181	52.10	6.72	321.0	2,180	---	<10.00
	10/10/2014	<4.00	217.0	834	0.44	4.52	130	242	79.40	7.99	269.0	1,550	---	<4.00
	6/24/2015	---	---	747	<2.00	---	173	---	---	---	---	1,720	---	---
	10/6/2015	---	---	803	<20.0	---	140	---	---	---	---	2,190 J	---	---
	6/22/2016	---	---	819	0.83	---	102	---	---	---	---	2,170	---	---
	10/06/2016	---	---	712	1.29	---	135	---	---	---	---	1,880	---	---
	05/23/2017	---	---	448	1.59	---	150	---	---	---	---	1,520	---	---
	10/12/2017	---	---	608	1.25	---	132	---	---	---	---	1,580	---	---
	5/9/2018	---	---	390	1.83	---	144	---	---	---	---	1,200	---	---
	10/10/2018	---	---	458	1.76	---	139	---	---	---	---	1,210	---	---
	6/19/2019	---	---	365	---	---	---	---	---	---	---	1,060	---	---
	11/25/2019	---	---	344	2.13	---	98	---	---	---	---	1,130	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-17	11/5/2003	<1.00	154.0	587	2.06	3.85	104	177	58.20	12.50	184.0	1,556	---	<1.00
	2/4/2004	<1.00	158.0	650	2.01	3.93	93	158	52.50	12.20	205.0	1,416	---	<1.00
Dup	2/4/2004	<1.00	172.0	557	2.08	4.03	96	162	52.60	12.10	204.0	1,496	---	<1.00
	5/6/2004	<1.00	162.0	604	1.77	3.57	91	182	57.70	10.90	176.0	1,416	---	<1.00
	8/4/2004	<0.10	141.0	638	---	---	132	207	81.00	12.70	221.0	1,660	---	<0.10
	2/11/2005	<1.00	174.0	572	2.94	4.61	101	134	45.90	11.00	229.0	1,470	---	<1.00
Dup	8/5/2005	<1.00	172.0	626	2.16	4.37	106	169	53.50	9.50	220.0	1,750	---	<1.00
	2/22/2006	<10.00	150.0	580	1.50	4.00	97	123	40.10	8.04	187.0	1,810	---	<10.00
	8/24/2006	<10.00	200.0	560	<2.5	3.06	100	140	46.10	5.94	178.0	1,700	---	<10.00
	8/24/2006	<10.00	320.0	530	<2.5	2.94	100	135	46.50	5.76	175.0	1,700	---	<10.00
Dup	2/28/2007	<10.00	180.0	530	2.20	4.10	130	95	30.30	7.06	213.0	1,240	---	<10.00
	8/22/2007	<10.00	177.0	550	1.80	4.30	130	113	41.40	5.97	200.0	1,310	---	177.00
	2/20/2008	<5.00	147.0	622	2.10	3.45	130	169	59.90	8.35	155.0	1,550	---	<5.00
	8/12/2008	<1.53	173.0	519	1.86	3.37	125	124	43.00	7.92	222.0	1,660	---	<1.53
Dup	2/19/2009	<5.00	180.0	460	2.40	3.60	170	70	21.00	7.50	320.0	1,300	---	<5.00
	7/29/2009	<5.00	190.0	440	2.40	4.00	180	76	24.00	7.40	270.0	1,300	---	<5.00
	2/24/2010	<5.00	182.0	512	1.85	3.60	148	91	30.90	5.36	265.0	1,380	---	<5.00
	7/28/2010	<5.00	217.0	4,840	0.80	3.09	513	88	28.80	4.88	245.0	1,390	---	<5.00
Dup	2/16/2011	<2.00	177.0	401	2.14	3.64	253	55	15.20	4.20	248.0	1,060	---	<2.00
	2/16/2011	<2.00	206.0	368	2.27	<0.0300	259	53	16.40	4.18	238.0	1,060	---	<2.00
	8/18/2011	<5.00	196.0	421	1.87	3.45	111	110	35.90	4.11	173.0	1,220	---	<5.00
	2/22/2012	<5.00	207.0	441	2.08	3.33	109	99	29.70	4.90	220.0	1,140	---	<5.00
Dup	8/28/2012	<10.00	164.0	570	1.59	1.99	103	182	58.40	6.76	132.0	2,070	---	<10.00
	2/20/2013	<6.00	192.0	511	1.75	3.33	130	153	50.40	6.09	160.0	1,280	---	<6.00
	8/14/2013	<6.00	163.0	637	1.71	3.37	126	181	67.00	7.28	142.0	1,790	---	<6.00
	4/3/2014	<10.00	253.0	434	2.54	4.07	133	112	36.80	5.78	197.0	7,360	---	<10.00
Dup	10/10/2014	<4.00	211.0	316	1.41	3.98	107	83	27.30	5.49	240.0	1,790	---	<4.00
	10/10/2014	<4.00	226.0	313	1.56	4.04	131	62	20.10	5.28	265.0	1,140	---	<4.00
	6/24/2015	---	---	587	<2.00	---	118	---	---	---	---	1,600	---	---
	10/6/2015	---	---	461	<8.00	---	119	---	---	---	---	1,280 J	---	---
Dup	6/22/2016	---	---	544	1.21	---	98	---	---	---	---	1,600	---	---
	10/6/2016	---	---	438	1.80	---	122	---	---	---	---	1,250	---	---
	05/23/2017	---	---	362	1.71	---	121	---	---	---	---	1,560	---	---
	10/12/2017	---	---	199	2.46	---	128	---	---	---	---	1,360	---	---
Dup	5/9/2018	---	---	339	1.42	---	123	---	---	---	---	980	---	---
	10/10/2018	---	---	413	1.87	---	132	---	---	---	---	1,080	---	---
	6/19/2019	---	---	367	---	---	---	---	---	---	---	1,050	---	---
	11/25/2019	---	---	405	1.93	---	106	---	---	---	---	1,380	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-18	11/23/2004													
	2/9/2005													
	8/4/2005													
	2/22/2006													
	2/28/2007													
	2/20/2008													
	8/12/2008													
	2/19/2009													
	7/29/2009													
	2/16/2011													
	8/18/2011													
	2/22/2012													
	8/28/2012													
	2/20/2013													
	8/14/2013													
	10/6/2015													
	6/23/2016													
	10/6/2016													
	05/23/2017													
	10/12/2017													
	5/8/2018													
	10/8/2018													
	6/19/2019													
	11/25/2019													
Not Sampled, Insufficient Water in Well														
MW-19	11/23/2004	<1.00	86.0	7,000	<10.0	17.30	582	2,020	678.00	52.40	1,590.0	12,900	---	<1.00
	2/11/2005	<1.00	92.0	5,200	1.30	5.12	502	1,340	522.00	61.30	974.0	22,000	---	<1.00
	8/5/2005	<1.00	82.0	4,850	1.76	4.70	450	1,200	422.00	50.60	793.0	9,750	---	<1.00
	8/5/2005	<1.00	80.0	5,170	1.87	4.83	462	1,270	463.00	51.00	814.0	15,800	---	<1.00
	2/22/2006	<10.00	75.0	3,900	<0.50	8.90	400	870	271.00	32.60	464.0	8,830	---	<10.00
	8/24/2006	<10.00	250.0	3,900	<5	3.01	390	902	293.00	28.80	582.0	10,900	---	<10.00
	2/28/2007	<10.00	92.0	5,500	<0.5	4.40	600	901	247.00	37.00	658.0	12,700	---	<10.00
	8/22/2007	<10.00	82.6	4,500	0.30	3.10	440	1,040	367.00	<50	686.0	11,600	---	82.60
	2/20/2008	<5.00	80.1	4,800	1.72	3.62	476	1,130	437.00	31.20	684.0	10,300	---	<5.00
	8/12/2008	<1.53	79.8	4,240	2.94	3.27	429	1,080	399.00	26.70	739.0	9,600	---	<1.53
	2/19/2009	<5.00	89.0	5,300	0.90	3.20	540	1,200	450.00	37.00	1,200.0	10,000	---	<5.00
	7/29/2009	<5.00	94.0	5,300	1.10	4.00	580	1,200	400.00	37.00	1,100.0	13,000	---	<5.00
	2/24/2010	<5.00	91.1	4,720	0.44	3.73	457	1,110	427.00	28.20	809.0	9,080	---	<5.00
	7/28/2010	<5.00	104.0	4,760	1.08	3.30	130	1,160	407.00	27.20	1,110.0	10,400	---	<5.00
	2/16/2011	<2.00	81.4	4,180	0.62	2.01	3,010	1,130	370.00	27.30	972.0	9,980	---	<2.00
	8/18/2011	<5.00	97.6	4,550	0.75	3.95	383	1,020	345.00	24.00	676.0	11,100	---	<5.00
	2/22/2012	<5.00	101.0	542	0.91	4.38	30	1,300	425.00	29.20	1,040.0	14,800	---	<5.00
	8/28/2012	<10.0	107.0	4,240	0.79	2.64	416	1,020	348.00	24.80	682.0	13,300	---	<10.00
	2/20/2013	<6.00	94.0	4,310	0.70	3.76	424	1,130	344.00	27.10	673.0	7,740	---	<6.00
	8/14/2013	<6.00	94.5	3,780	0.90	3.84	382	1,050	376.00	28.10	710.0	8,740	---	<6.00
	4/3/2014	<10.00	122.0	3,740	1.07	4.22	439	1,050	362.00	26.30	680.0	13,100	---	<10.00
	10/10/2014	<4.00	95.6	3,440	0.13	3.86	416	965	369.00	29.20	663.0	7,560	---	<4.00
	6/25/2015	---	---	3,570	<2.00	---	809	---	---	---	---	8,110	---	---
	10/6/2015	---	---	3,780	<80.0	---	480	---	---	---	---	10,700 J	---	---
	6/22/2016	---	---	3,550	0.88	---	373	---	---	---	---	7,370	---	---
	10/06/2016	---	---	3,830	1.03	---	419	---	---	---	---	7,130	---	---
	05/23/2017	---	---	3,280	0.300 J	---	356	---	---	---	---	7,440	---	---
	10/12/2017	---	---	3,130	<0.0360	---	362	---	---	---	---	6,120	---	---
	5/9/2018	---	---	3,290	0.34	---	363	---	---	---	---	6,410	---	---
	10/10/2018	---	---	3,490	6.52	---	403	---	---	---	---	5,230	---	---
	6/19/2019	---	---	2,990	---	---	---	---	---	---	---	9,720	---	---
	11/25/2019	---	---	3,510	2.95	---	740	---	---	---	---	8,780	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
MW-20	11/23/2004	NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	2/11/2005	<1.00	82.0	606	2.49	2.90	80	176	62.60	13.60	104.0	985	---	<1.00
	8/5/2005	<1.00	80.0	1,170	1.76	4.55	85	326	116.00	14.70	162.0	2,640	---	<1.00
	2/22/2006	<10.00	110.0	1,100	0.98	5.50	83	295	103.00	13.50	145.0	3,000	---	<10.00
	8/24/2006	<10.00	1,100.0	1,100	<2.5	3.39	84	288	101.00	11.20	160.0	3,590	---	<10.00
	2/28/2007	<10.00	110.0	1,300	1.40	5.10	95	332	107.00	14.60	165.0	4,500	---	<10.00
	8/22/2007	<10.00	419.0	1,400	0.80	5.70	100	346	119.00	11.90	203.0	4,100	---	419.00
	2/20/2008	<5.00	117.0	1,540	1.10	3.83	108	393	158.00	18.70	247.0	3,550	---	<5.00
	8/12/2008	<1.53	135.0	1,570	2.02	3.73	113	392	154.00	18.50	249.0	4,290	---	<1.53
	2/19/2009	<5.00	130.0	1,600	1.00	3.70	130	440	150.00	20.00	290.0	3,900	---	<5.00
	7/29/2009	<5.00	120.0	1,700	1.10	4.10	150	400	150.00	21.00	280.0	4,600	---	<5.00
	2/25/2010	<5.00	107.0	1,500	0.80	4.03	99	402	146.00	13.90	229.0	3,460	---	<5.00
	7/28/2010	<5.00	102.0	245	2.00	3.43	143	451	156.00	13.60	289.0	4,740	---	<5.00
	2/16/2011	<2.00	98.4	1,810	0.97	3.89	1,070	442	134.00	13.30	274.0	4,240	---	<2.00
	8/18/2011	<5.00	106.0	1,610	1.16	3.99	135	393	128.00	11.10	253.0	4,550	---	<5.00
	2/22/2012	<5.00	107.0	1,750	1.10	4.30	122	434	126.00	12.50	303.0	4,790	---	<5.00
	8/24/2012	<5.00	123.0	1,830	1.03	3.46	134	440	152.00	14.20	295.0	4,510	---	<5.00
	2/20/2013	<6.00	106.0	1,670	0.99	3.78	138	445	143.00	13.50	275.0	3,680	---	<6.00
	8/14/2013	<6.00	104.0	1,470	1.02	4.17	121	435	152.00	15.10	275.0	4,310	---	<6.00
	4/3/2014	<10.00	134.0	1,500	1.22	4.16	134	407	137.00	13.00	243.0	5,140	---	<10.00
	10/10/2014	<4.00	107.0	1,320	0.50	3.82	121	387	139.00	137.00	233.0	4,180	---	<4.00
	6/24/2015	---	---	1,340	<2.00	---	125	---	---	---	---	3,090	---	---
	10/6/2015	---	---	1,290	<20.0	---	125	---	---	---	---	3,650 J	---	---
	6/22/2016	---	---	1,220	0.75	---	90	---	---	---	---	2,400	---	---
	10/6/2016	---	---	1,270	0.95	---	102	---	---	---	---	3,220	---	---
	05/23/2017	---	---	1,170	0.68	---	95	---	---	---	---	3,030	---	---
	10/12/2017	---	---	1,130	0.75	---	<0.460	---	---	---	---	2,340	---	---
	5/9/2018	---	---	1,130	0.100 U	---	96	---	---	---	---	1,980	---	---
	10/10/2018	---	---	1,240	0.68	---	104	---	---	---	---	2,180	---	---
	6/19/2019	---	---	1,180	---	---	---	---	---	---	---	3,420	---	---
	11/25/2019	---	---	1,120	<0.601	---	83	---	---	---	---	3,660	---	---
MW-21	11/28/2007	<1.14	415.0	482	---	---	128	173	64.40	18.30	115.0	1,440	---	1.14
	2/20/2008	<5.00	115.0	606	1.90	5.15	159	205	71.30	14.40	110.0	1,740	---	<5.00
	8/12/2008	<1.53	126.0	544	2.00	4.68	147	193	64.70	12.50	116.0	2,060	---	<1.53
	2/19/2009	<5.00	190.0	400	2.10	4.30	140	150	46.00	11.00	120.0	1,200	---	<5.00
	7/29/2009	<5.00	210.0	330	2.20	4.40	150	120	38.00	10.00	96.0	1,200	---	<5.00
	2/24/2010	<5.00	184.0	280	1.79	4.04	143	123	37.80	7.93	100.0	1,030	---	<5.00
	7/28/2010	<5.00	168.0	2,970	0.61	3.41	150	109	34.30	7.78	95.8	1,010	---	<5.00
	2/16/2011	<2.00	149.0	240	1.87	4.56	250	106	33.40	8.13	90.0	888	---	<2.00
	8/18/2011	<5.00	176.0	213	2.15	4.93	141	90	27.50	5.90	79.1	876	---	<5.00
	2/22/2012	<5.00	192.0	208	2.16	5.50	118	89	24.80	6.82	74.3	894	---	<5.00
	8/24/2012	<5.00	196.0	241	1.95	4.10	137	100	35.00	9.71	80.5	750	---	<5.00
	2/21/2013	<6.00	181.0	182	1.98	4.77	121	91	29.40	8.11	83.6	700	---	<6.00
	8/14/2013	<6.00	175.0	180	2.48	5.90	123	100	30.30	8.42	103.0	798	---	<6.00
	4/3/2014	<10.00	222.0	236	2.72	5.98	230	117	37.40	8.98	108.0	1,010	---	<10.00
	10/10/2014	<4.00	185.0	186	1.50	5.16	393	155	48.70	9.68	119.0	1,080	---	<4.00
	6/24/2015	---	---	195	2.49	---	413	---	---	---	---	1,190	---	---
	10/6/2015	---	---	182	<8.00	---	365	---	---	---	---	1,170 J	---	---
	6/22/2016	---	---	170	2.25	---	289	---	---	---	---	961	---	---
	10/6/2016	---	---	185	2.01	---	279	---	---	---	---	957	---	---
	05/23/2017	---	---	176	1.71	---	199	---	---	---	---	906	---	---
	10/12/2017	---	---	176	1.94	---	194	---	---	---	---	849	---	---
	10/12/2017	---	---	176	1.81	---	193	---	---	---	---	814	---	---
	5/9/2018	---	---	177	1.96	---	196	---	---	---	---	902	---	---
	10/10/2018	---	---	192	1.83	---	213	---	---	---	---	941	---	---
	6/19/2019	---	---	212	---	---	---	---	---	---	---	1,030	---	---
Dup														

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	11/25/2019	---	---	204	2.25	---	213	---	---	---	---	1,040	---	---
MW-22	11/28/2007	<1.14	2,950.0	1,020	0.93	2.70	169	286	96.70	12.10	229.0	2,330	---	1.14
	2/20/2008	<5.00	374.0	1,060	0.93	2.70	171	291	102.00	11.10	244.0	2,560	---	<5.00
	8/12/2008	<1.53	143.0	1,370	1.70	2.73	167	359	129.00	12.90	272.0	3,670	---	<1.53
	2/20/2009	<5.00	270.0	2,000	0.74	2.40	180	570	190.00	17.00	380.0	5,300	---	<5.00
	7/29/2009	<5.00	310.0	3,000	0.85	2.60	200	730	260.00	25.00	570.0	6,700	---	<5.00
	2/25/2010	<5.00	142.0	3,630	0.27	2.92	166	802	251.00	15.40	590.0	7,060	---	<5.00
	7/28/2010	<5.00	136.0	3,640	0.64	2.17	204	982	309.00	15.90	865.0	8,760	---	<5.00
	2/16/2011	<2.00	138.0	3,650	0.57	1.90	1,530	834	252.00	14.90	830.0	7,490	---	<2.00
	8/18/2011	<5.00	142.0	4,020	0.59	2.94	206	745	232.00	13.70	974.0	8,900	---	<5.00
	2/22/2012	<5.00	152.0	3,980	0.73	2.93	236	732	233.00	15.80	1,060.0	11,100	---	<5.00
	8/29/2012	<10.00	171.0	3,210	0.79	1.79	258	603	195.00	15.00	1,080.0	9,460	---	<10.00
	2/20/2013	<6.00	174.0	2,700	0.63	3.02	298	512	153.00	13.00	922.0	5,360	---	<6.00
	8/14/2013	<6.00	183.0	2,660	0.84	2.55	294	437	129.00	12.70	996.0	5,450	---	<6.00
	4/3/2014	<10.00	238.0	2,420	0.76	2.40	320	316	96.40	10.60	841.0	4,660	---	<10.00
	10/9/2014	<4.00	183.0	2,030	0.40	2.72 J	257	349	108.00	12.70	907.0	5,150	---	<4.00
	6/25/2015	---	---	2,430	<2.00	---	660	---	---	---	---	6,130	---	---
	10/6/2015	---	---	2,830	<40.0	---	260	---	---	---	---	6,340 J	---	---
	6/22/2016	---	---	2,730	0.84	---	209	---	---	---	---	5,030	---	---
	10/06/2016	---	---	3,010	0.67	---	244	---	---	---	---	6,440	---	---
	10/06/2016	---	---	3,030	0.66	---	249	---	---	---	---	6,120	---	---
	05/23/2017	---	---	2,860	0.83	---	251	---	---	---	---	5,780	---	---
	10/13/2017	---	---	2,850	<0.0360	---	267	---	---	---	---	10,900	---	---
	5/9/2018	---	---	2,810	4.43	---	253	---	---	---	---	5,280	---	---
	10/9/2018	---	---	3,960	0.37	---	361	---	---	---	---	6,210	---	---
	6/19/2019	---	---	3,070	---	---	---	---	---	---	---	9,460	---	---
	11/25/2019	---	---	4,040	2.16	---	399	---	---	---	---	8,840	---	---
MW-23	2/22/2012	NS - Soap Contaminant in the well from drilling completion activities.												
	8/24/2012	<5.00	152.0	592	1.19	<2.00	91	155	55.00	8.44	114.0	1,460	---	<5.00
	2/20/2013	<6.00	121.0	490	1.10	0.52	97	146	52.80	8.12	107.0	1,330	---	<6.00
	8/14/2013	<6.00	117.0	458	1.29	0.69	93	156	52.80	8.82	111.0	1,510	---	<6.00
	4/3/2014	<10.00	146.0	489	1.51	0.67	96	138	48.60	7.85	103.0	1,500	---	<10.00
	10/10/2014	<4.00	127.0	391	0.72	0.72	86	140	51.90	8.61	107.0	1,010	---	<4.00
	6/24/2015	---	---	394	<2.00	---	100	---	---	---	---	1,280	---	---
	10/6/2015	---	---	379	<8.00	---	86	---	---	---	---	805	---	---
	6/22/2016	---	---	363	1.03	---	81	---	---	---	---	1,110	---	---
	10/06/2016	---	---	386	1.37	---	94	---	---	---	---	1,060	---	---
	05/23/2017	---	---	360	1.10	---	77	---	---	---	---	768	---	---
	10/12/2017	---	---	349	1.03	---	75	---	---	---	---	933	---	---
	5/9/2018	---	---	323	1.22	---	79	---	---	---	---	824	---	---
	10/10/2018	---	---	355	1.23	---	84	---	---	---	---	929	---	---
	6/19/2019	---	---	359	---	---	---	---	---	---	---	1,330	---	---
	11/25/2019	---	---	341	1.77	---	70	---	---	---	---	1,190	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-24	2/22/2012	<5.00	101.0	2,910	1.71	3.11	309	806	254.00	24.40	263.0	9,240	---	<5.00
	8/24/2012	<5.00	118.0	3,140	1.05	3.18	309	866	263.00	25.10	291.0	9,160	---	<5.00
	2/20/2013	<6.00	97.4	2,500	0.99	3.41	277	826	233.00	22.70	263.0	4,780	---	<6.00
	2/20/2013	<6.00	97.7	2,500	0.98	3.42	281	806	224.00	22.90	253.0	4,940	---	<6.00
	8/14/2013	<6.00	94.0	2,250	1.21	3.66	268	790	234.00	24.80	261.0	5,540	---	<6.00
	4/3/2014	<10.00	125.0	1,930	1.34	3.71	286	3,410	1,020.00	108.00	1,150.0	7,300	---	<10.00
	10/10/2014	<4.00	96.9	1,870	0.39	3.41	268	647	208.00	22.90	230.0	5,850	---	<4.00
	6/24/2015	---	---	1,970	<2.00	---	482	---	---	---	---	4,960	---	---
	10/6/2015	---	---	1,820	<40.0	---	280	---	---	---	---	5,390 J	---	---
	6/22/2016	---	---	1,680	1.29	---	223	---	---	---	---	4,920	---	---
	10/6/2016	---	---	1,790	0.93	---	247	---	---	---	---	4,540	---	---
	05/23/2017	---	---	1,610	0.66	---	231	---	---	---	---	2,420	---	---
	05/23/2017	---	---	1,610	0.61	---	231	---	---	---	---	3,740	---	---
	10/12/2017	---	---	1,540	0.59	---	229	---	---	---	---	3,270	---	---
	5/9/2018	---	---	1,510	1.79	---	219	---	---	---	---	2,910	---	---
	10/10/2018	---	---	1,640	0.100 U	---	286	---	---	---	---	3,520	---	---
	6/19/2019	---	---	1,660	---	---	---	---	---	---	---	6,500	---	---
	11/25/2019	---	---	1,710	<0.601	---	242	---	---	---	---	5,510	---	---
MW-25	5/24/2012	<5.00	158.0	4,390	0.12	3.56	307	890	272.00	19.20	1,150.0	10,200	---	<5.00
	5/24/2012	<5.00	165.0	4,460	0.14	3.46	316	880	270.00	19.10	1,170.0	11,000	---	<5.00
	8/28/2012	<10.00	294.0	4,350	0.62	2.32	290	877	255.00	18.40	1,150.0	11,400	---	<10.00
	2/20/2013	<6.00	160.0	4,490	0.46	3.66	282	864	258.00	18.50	1,210.0	8,160	---	<6.00
	8/14/2013	<6.00	138.0	4,870	0.55	3.60	255	929	289.00	20.20	1,370.0	10,100	---	<6.00
	8/14/2013	<6.00	150.0	5,160	0.65	3.87	268	900	287.00	20.20	1,340.0	11,400	---	<6.00
	4/3/2014	<10.00	192.0	4,580	0.77	4.47	299	962	258.00	19.30	1,330.0	12,200	---	<10.00
	10/10/2014	<4.00	152.0	4,280	<0.100	4.10	299	870	270.00	22.50	1,250.0	11,400	---	<4.00
	6/24/2015	---	---	3,850	<2.00	---	751	---	---	---	---	8,080	---	---
	10/6/2015	---	---	3,340	<80.0	---	349	---	---	---	---	6,200 J	---	---
	6/22/2016	---	---	3,080	0.64	---	237	---	---	---	---	7,340	---	---
	10/6/2016	---	---	3,210	0.55	---	262	---	---	---	---	6,470	---	---
	05/23/2017	---	---	2,700	0.333 J	---	227	---	---	---	---	6,110	---	---
	10/12/2017	---	---	2,540	0.74	---	228	---	---	---	---	4,980	---	---
	5/9/2018	---	---	2,570	0.44	---	242	---	---	---	---	4,400	---	---
	10/10/2018	---	---	2,750	0.38	---	329	---	---	---	---	3,800	---	---
	6/19/2019	---	---	2,310	---	---	---	---	---	---	---	7,160	---	---
	11/24/2019	---	---	890	1.77	---	127	---	---	---	---	5,790	---	---
MW-26	5/24/2012	<5.00	200.0	2,320	0.86	2.45	236	241	75.30	11.40	1,000.0	5,020	---	<5.00
	8/29/2012	<5.00	205.0	2,200	0.93	1.57	225	267	72.90	11.30	1,140.0	4,940	---	<5.00
	2/21/2013	<6.00	213.0	1,950	0.69	2.65	240	210	58.70	9.82	944.0	3,640	---	<6.00
	8/14/2013	<6.00	215.0	1,930	0.94	2.46	244	174	59.90	10.60	913.0	3,700	---	<6.00
	4/3/2014	<10.00	270.0	1,380	1.02	2.31	273	173	51.00	8.78	838.0	3,300	---	<10.00
	10/9/2014	<4.00	223.0	1,390	0.56	2.71 J	272	158	45.30	9.50	794.0	3,920	---	<4.00
	6/25/2015	---	---	1,260	<2.00	---	445	---	---	---	---	2,970	---	---
	6/25/2015	---	---	1,340	<2.00	---	462	---	---	---	---	3,010	---	---
	10/6/2015	---	---	1,100	<20.0	---	270	---	---	---	---	2,310 J	---	---
	6/22/2016	---	---	948	0.97	---	238	---	---	---	---	2,330	---	---
	10/6/2016	---	---	944	1.22	---	266	---	---	---	---	2,290	---	---
	05/23/2017	---	---	764	1.15	---	227	---	---	---	---	1,820	---	---
	10/13/2017	---	---	747	1.35	---	240	---	---	---	---	1,960	---	---
	5/9/2018	---	---	666	1.36	---	212	---	---	---	---	1,820	---	---
	10/9/2018	---	---	767	1.43	---	236	---	---	---	---	1,810	---	---
	6/19/2019	---	---	685	---	---	---	---	---	---	---	1,980	---	---
	11/25/2019	---	---	789	0.79	---	218	---	---	---	---	1,840	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
MW-27	5/24/2012	<5.00	138.0	1,270	0.84	1.02	640	405	124.00	22.50	330.0	3,660	---	<5.00
	8/29/2012							DRY						
	2/21/2013							DRY						
	8/14/2013							DRY						
	4/3/2014							DRY						
	10/9/2014							DRY						
	10/6/2015							DRY						
	6/23/2016							DRY						
	10/6/2016							DRY						
	05/23/2017							DRY						
	10/12/2017							DRY						
	5/8/2018							DRY						
	10/8/2018							DRY						
	6/19/2019							Not Sampled, Insufficient Water in Well						
	11/25/2019							Not Sampled, Insufficient Water in Well						
MW-28	08/01/2017	---	---	3,930	0.94	---	324	---	---	---	---	6,950	---	---
Dup	08/01/2017	---	---	4,120	0.89	---	335	---	---	---	---	7,190	---	---
	10/13/2017	---	---	4,120	<0.0360	---	329	---	---	---	---	6,650	---	---
Dup	10/13/2017	---	---	4,000	<0.0360	---	321	---	---	---	---	7,570	---	---
	5/9/2018	---	---	4,330	6.47	---	325	---	---	---	---	7,480	---	---
Dup	5/9/2018	---	---	4,660	6.30	---	348	---	---	---	---	8,440	---	---
	10/10/2018	---	---	5,720	12.60	---	436	---	---	---	---	8,870	---	---
Dup-1	6/19/2019	---	---	9,750	---	---	---	---	---	---	---	22,000	---	---
	6/19/2019	---	---	4,820	---	---	---	---	---	---	---	14,000	---	---
	11/25/19	---	---	4,720	4.66	---	419	---	---	---	---	12,000	---	---
MW-29	08/01/2017	---	---	1,760	1.13	---	332	---	---	---	---	3,980	---	---
	10/13/2017	---	---	1,870	0.75	---	343	---	---	---	---	3,690	---	---
	5/9/2018	---	---	2,390	0.41	---	279	---	---	---	---	4,390	---	---
	10/9/2018	---	---	2,620	7.79	---	345	---	---	---	---	4,040	---	---
Dup-2	6/19/2019	---	---	2,520	---	---	---	---	---	---	---	6,160	---	---
	6/19/2019	---	---	2,770	---	---	---	---	---	---	---	8,320	---	---
	11/25/2019	---	---	1,120	5.58	---	164	---	---	---	---	4,920	---	---
MW-30	08/01/2017	---	---	10,800	1.02	---	583	---	---	---	---	18,300	---	---
	10/12/2017	---	---	10,500	17.9 J	---	584	---	---	---	---	17,900	---	---
Dup	10/12/2017	---	---	10,700	<0.360 J	---	592	---	---	---	---	19,800	---	---
	5/9/2018	---	---	11,200	0.96	---	568	---	---	---	---	19,200	---	---
Dup	5/9/2018	---	---	9,210	0.100 U	---	476	---	---	---	---	18,300	---	---
	10/9/2018	---	---	11,700	17.50	---	660	---	---	---	---	20,200	---	---
	6/19/2019	---	---	10,500	---	---	---	---	---	---	---	26,800	---	---
	11/25/2019	---	---	10,600	17.40	---	657	---	---	---	---	16,900	---	---
Dup	11/25/2019	---	---	9,540	3.01	---	627	---	---	---	---	18,700	---	---
MW-31	08/01/2017	---	---	443	0.94	---	131	---	---	---	---	1,070	---	---
	10/12/2017	---	---	385	0.91	---	129	---	---	---	---	1,070	---	---
	5/9/2018	---	---	364	0.87	---	138	---	---	---	---	1,040	---	---
	10/10/2018	---	---	507	0.90	---	135	---	---	---	---	1,070	---	---
	6/19/2019							Not Sampled, Insufficient Water in Well						
	11/24/2019	---	---	543	1.55	---	139	---	---	---	---	1,600	---	---
MW-32	08/01/2017	---	---	583	0.91	---	164	---	---	---	---	2,710	---	---
	10/12/2017	---	---	1,290	0.75	---	161	---	---	---	---	2,850	---	---
	5/9/2018	---	---	1,250	1.31	---	152	---	---	---	---	2,480	---	---
	10/10/2018	---	---	1,390	0.47	---	233	---	---	---	---	2,990	---	---
	6/19/2019							Not Sampled, Insufficient Water in Well						
	11/25/2019	---	---	1,440	<0.601	---	191	---	---	---	---	4,340	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
West	8/22/1997	--	--	250	--	--	--	--	--	--	--	--	--	--
	2/17/1998	<2.00	370.0	237	--	--	134	--	--	--	--	975	96.00	--
	2/7/2001	<1.00	236.0	340	2.00	4.50	120	40	12.50	33.20	264.0	1,000	--	--
	5/3/2002	<1.00	214.0	329	1.39	4.36	116	42	11.90	40.90	234.0	--	--	<1.00
	10/14/2002	<0.10	210.0	337	--	--	127	39	9.37	35.60	290.0	986	--	<0.10
	12/27/2002	<0.10	198.0	337	--	--	134	43	12.50	33.20	263.0	997	--	<0.10
	2/18/2003	<0.10	190.0	354	--	--	141	34	9.78	23.90	152.0	1,010	--	<0.10
	5/30/2003	<1.00	202.0	353	1.54	4.16	116	48	13.30	35.10	283.0	1,050	--	<1.00
	8/25/2003	<1.00	194.0	351	1.50	4.08	112	49	13.20	38.40	265.0	1,066	--	<1.00
	11/7/2003	<1.00	204.0	327	1.65	3.98	115	51	13.80	38.80	235.0	1,100	--	<1.00
	2/5/2004	<1.00	196.0	345	1.66	4.09	112	52	14.60	41.40	235.0	1,074	--	<1.00
	5/6/2004	<1.00	200.0	339	1.44	3.83	115	54	14.00	37.30	241.0	1,040	--	<1.00
	8/3/2004	<0.10	186.0	337	--	--	147	42	20.10	49.10	297.0	717	--	<0.10
	2/11/2005	<1.00	186.0	417	2.44	4.47	117	76	21.40	43.90	241.0	1,128	--	<1.00
	8/4/2005	<1.00	150.0	526	1.54	4.16	129	87	23.60	42.20	280.0	1,104	--	<1.00
	2/23/2006	<10.00	150.0	800	0.76	4.00	110	149	44.30	47.10	257.0	2,390	--	<10.00
	8/25/2006	<10.00	150.0	1,500	<2.5	2.78	97	315	87.60	67.70	400.0	4,840	--	<10.00
	2/28/2007	<10.00	120.0	2,500	0.86	6.60	120	515	130.00	98.70	410.0	7,600	--	<10.00
	8/21/2007	<10.00	99.8	3,700	0.20	4.31	180	844	251.00	72.70	665.0	12,700	--	99.80
	2/20/2008	<5.00	119.0	2,780	0.54	3.43	202	662	189.00	81.80	564.0	5,850	--	<5.00
	8/13/2008	<5.00	175.0	1,940	1.57	3.89	227	387	119.00	61.80	588.0	5,570	--	<5.00
	2/19/2009	<5.00	180.0	1,700	0.67	2.80	230	330	100.00	51.00	550.0	4,300	--	<5.00
	7/29/2009	<5.00	190.0	1,200	0.81	3.40	240	230	74.00	37.00	400.0	3,200	--	<5.00
	7/28/2010	<5.00	238.0	541	0.99	2.69	224	128	36.60	26.00	345.0	1,760	--	<5.00
	2/16/2011	<2.00	193.0	417	1.10	3.56	329	91	24.80	20.00	263.0	1,300	--	<2.00
	8/18/2011	<5.00	247.0	322	1.36	3.66	205	69	18.10	15.10	232.0	1,220	--	<5.00
	2/22/2012	<5.00	246.0	312	1.34	3.28	183	68	18.50	15.40	221.0	1,080	--	<5.00
	8/29/2012	<5.00	241.0	249	1.78	2.46	169	64	18.60	16.20	225.0	988	--	<5.00
	2/21/2013	<6.00	243.0	226	1.34	3.78	175	57	16.70	14.60	212.0	872	--	<6.00
	8/14/2013	<6.00	227.0	262	1.75	3.68	190	59	16.40	15.30	218.0	892	--	<6.00
	4/3/2014	<10.00	281.0	235	1.41	3.07	159	49	15.30	14.20	201.0	680	--	<10.00
	10/9/2014	<4.00	232.0	200	0.91	0.40	158	55	15.40	13.90	201.0	861	--	<4.00
	6/25/2015	--	--	244	<2.00	--	183	--	--	--	--	796	--	--
	10/6/2015	--	--	215	<8.00	--	141	--	--	--	--	624	--	--
	6/23/2016	--	--	248	1.26	--	132	--	--	--	--	889	--	--
	10/06/2016	--	--	274	1.43	--	146	--	--	--	--	886	--	--
	05/23/2017	--	--	225	1.30	--	140	--	--	--	--	820	--	--
	10/13/2017	--	--	184	1.25	--	148	--	--	--	--	757	--	--
	5/9/2018	--	--	133	1.23	--	146	--	--	--	--	778	--	--
	10/9/2018	--	--	140	1.40	--	154	--	--	--	--	720	--	--
	6/19/2019	--	--	117	--	--	--	--	--	--	--	726	--	--
	11/24/2019	--	--	124	1.30	--	153	--	--	--	--	728	--	--

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)	8/22/1997	NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	--	--	--	3,300	--	--	--	--	--	--	--	--	--	--
Southwest	2/17/1998	<2.00	420.0	2,170	--	--	255	--	--	--	--	4,719	712.00	--
	2/7/2001	<1.00	326.0	1,900	2.20	5.00	350	197	59.10	--	1,078.0	4,100	--	--
	5/3/2002	<1.00	272.0	1,490	1.38	4.51	301	200	65.00	46.40	744.0	--	--	<1.00
	10/14/2002	<0.10	330.0	1,330	--	--	360	110	32.50	61.50	929.0	3,020	--	<0.10
	12/27/2002	<0.10	308.0	1,280	--	--	319	107	31.90	66.80	980.0	3,040	--	<0.10
	2/18/2003	<0.10	289.0	1,290	--	--	300	104	31.30	63.00	918.0	2,910	--	<0.10
Dup	2/18/2003	<0.10	298.0	1,310	--	--	299	108	32.20	58.30	812.0	3,040	--	<0.10
	6/2/2003	<1.00	304.0	1,420	2.34	5.83	282	161	45.70	49.10	935.0	4,070	--	<1.00
Dup	6/2/2003	<1.00	290.0	1,370	2.12	5.65	287	169	54.50	45.00	899.0	3,420	--	<1.00
	8/25/2003	<1.00	310.0	1,190	2.25	6.10	272	117	33.60	49.70	774.0	3,205	--	<1.00
Dup	8/25/2003	<1.00	200.0	1,260	<2.00	5.61	76	159	41.80	79.00	591.0	3,270	--	<1.00
	11/7/2003	<1.00	300.0	1,240	2.29	5.77	255	129	35.40	48.50	727.0	3,275	--	<1.00
	2/5/2004	<1.00	300.0	1,240	2.37	6.17	238	109	33.10	52.20	716.0	2,860	--	<1.00
	5/6/2004	<1.00	294.0	1,310	<3.00	6.38	231	158	30.80	53.20	780.0	3,180	--	<1.00
	8/3/2004	<0.10	276.0	1,400	--	--	264	75	45.20	82.40	1,660.0	2,550	--	<0.10
	2/11/2005	<1.00	260.0	2,920	1.33	9.61	230	323	94.50	84.40	1,240.0	5,575	--	<1.00
	8/4/2005	<1.00	226.0	5,290	1.55	11.70	325	691	201.00	101.00	1,980.0	12,000	--	<1.00
	2/23/2006	<10.00	300.0	3,000	--	11.00	450	373	108.00	77.10	896.0	6,300	--	<10.00
	8/25/2006	<10.00	300.0	3,100	<5.0	5.99	600	415	117.00	74.90	1,240.0	7,600	--	<10.00
	2/28/2007	<10.00	310.0	4,500	0.51	8.80	670	511	130.00	93.70	994.0	9,120	--	<10.00
	8/21/2007	<10.00	265.0	5,500	0.10	11.70	860	879	242.00	82.60	2,040.0	14,900	--	265.00
	2/20/2008	<5.00	278.0	5,940	0.63	9.30	896	1,010	281.00	120.00	2,300.0	13,100	--	<5.00
	8/13/2008	<5.00	268.0	5,670	4.18	8.14	775	934	237.00	112.00	2,110.0	13,700	--	<5.00
	2/19/2009	<5.00	280.0	5,200	0.78	5.40	870	920	240.00	120.00	2,300.0	13,000	--	<5.00
	7/29/2009	<5.00	260.0	5,300	0.96	6.10	810	790	240.00	110.00	2,200.0	12,000	--	<5.00
	7/28/2010	<5.00	254.0	3,890	0.96	5.17	565	758	190.00	67.60	1,770.0	8,850	--	<5.00
Dup	7/28/2010	<5.00	274.0	4,050	0.89	3.98	591	667	184.00	67.90	1,730.0	7,250	--	<5.00
	2/16/2011	<2.00	228.0	3,360	0.88	0.81	2,450	538	156.00	63.30	1,470.0	8,320	--	<2.00
	8/18/2011	<5.00	319.0	3,370	1.04	5.10	643	401	98.90	48.60	1,310.0	5,170	--	<5.00
	2/22/2012	<5.00	324.0	2,800	1.19	5.63	502	365	99.80	48.60	1,280.0	6,860	--	<5.00
	8/29/2012	<5.00	323.0	2,670	1.14	2.96	524	304	90.80	44.30	1,270.0	5,940	--	<5.00
	2/21/2013	<6.00	359.0	1,750	1.08	4.43	498	323	86.70	36.30	1,120.0	4,020	--	<6.00
	8/13/2013	<6.00	342.0	1,710	1.44	4.09	525	295	86.20	35.70	1,110.0	3,200	--	<6.00
	4/3/2014	<10.00	417.0	1,430	1.28	3.40	405	139	39.80	32.40	845.0	2,760	--	<10.00
	10/9/2014	<4.00	346.0	1,190	0.82	3.79 J	363	145	40.20	33.30	818.0	5,210	--	<4.00
	6/25/2015	--	--	1,360	<2.00	--	489	--	--	--	--	3,450	--	--
	10/6/2015	--	--	1,760	<40.0	--	408	--	--	--	--	2,860 J	--	--
	6/23/2016	--	--	2,390	1.14	--	358	--	--	--	--	5,620	--	--
	10/06/2016	--	--	1,310	1.44	--	323	--	--	--	--	2,550	--	--
	05/23/2017	--	--	1,260	1.31	--	273	--	--	--	--	2,320	--	--
	10/13/2017	--	--	1,200	1.28	--	254	--	--	--	--	2,800	--	--
	5/9/2018	--	--	1,090	1.16	--	234	--	--	--	--	2,630	--	--
	10/9/2018	--	--	1,050	1.18	--	253	--	--	--	--	2,220	--	--
	6/19/2019	--	--	919	--	--	--	--	--	--	--	2,460	--	--
	11/24/2019	--	--	772	2.22	--	260	--	--	--	--	2,050	--	--

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G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico

Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
	5/1/2002	<1.00	172.0	97	1.64	4.05	137	51	23.40	8.23	84.9	---	---	<1.00
	10/10/2002	<0.10	168.0	106	---	---	124	53	22.20	9.99	106.0	605	---	<0.10
	12/27/2002	<0.10	157.0	111	---	---	134	55	22.50	5.30	96.0	572	---	<0.10
WW-1	2/18/2003	<0.10	152.0	115	---	---	137	54	22.10	6.38	93.5	601	---	<0.10
	6/2/2003	<1.00	154.0	127	1.69	3.77	119	60	24.10	7.14	118.0	621	---	<1.00
	8/25/2003	<1.00	148.0	136	1.70	3.72	111	63	24.00	8.43	104.0	652	---	<1.00
	11/7/2003	<1.00	156.0	149	1.80	3.62	111	62	24.40	8.30	95.5	669	---	<1.00
	2/4/2004	<1.00	156.0	185	1.81	3.79	102	68	25.50	8.70	92.4	709	---	<1.00
	5/5/2004	<1.00	148.0	204	1.54	3.48	100	72	26.50	8.25	120.0	695	---	<1.00
	8/4/2004	<0.10	132.0	222	---	---	114	92	37.90	9.89	139.0	471	---	<0.10
	8/4/2005							NS						
	2/23/2006							NS						
	3/1/2007	<10.00	130.0	360	1.50	3.20	77	101	30.70	5.94	103.0	1,060	---	<10.00
	8/21/2007							NS						
	2/21/2008	<5.00	106.0	461	1.22	2.90	84	112	41.40	6.82	118.0	1,310	---	<5.00
	8/12/2008							NS						
	2/20/2009	<5.00	150.0	320	1.30	2.80	100	97	33.00	6.40	110.0	1,100	---	<5.00
	7/29/2009							NS						
	2/24/2010	<5.00	128.0	246	1.23	2.89	115	80	27.20	4.93	107.0	804	---	<5.00
	7/28/2010							NS						
	2/16/2011	<2.00	127.0	232	1.21	2.80	232	83	26.80	5.40	101.0	822	---	<2.00
	8/18/2011							NS						
	2/22/2012	<5.00	163.0	229	1.40	2.92	103	81	27.00	5.51	102.0	834	---	<5.00
	8/29/2012	<5.00	166.0	213	1.42	1.63	119	88	28.30	5.34	118.0	756	---	<5.00
	2/20/2013	<6.00	165.0	218	1.16	2.55	134	83	28.60	5.58	108.0	724	---	<6.00
	8/14/2013	<6.00	157.0	231	1.28	2.60	146	92	31.80	6.22	119.0	840	---	<6.00
	4/3/2014	<10.00	207.0	228	1.43	2.69	145	93	31.00	6.16	116.0	792	---	<10.00
	10/9/2014	<4.00	165.0	205	0.73	2.46 J	145	90	31.80	6.01	115.0	916	---	<4.00
	6/24/2015	---	---	220	<2.00	---	153	---	---	---	---	903	---	---
	6/24/2015	---	---	224	<2.00	---	156	---	---	---	---	888	---	---
Dup	10/6/2015	---	---	230	<4.00	---	145	---	---	---	---	527	---	---
Dup	10/6/2015	---	---	228	<4.00	---	141	---	---	---	---	724	---	---
Dup	6/22/2016	---	---	220	0.96	---	138	---	---	---	---	873	---	---
	6/22/2016	---	---	207	0.95	---	131	---	---	---	---	813	---	---
	10/06/2016	---	---	237	1.14	---	155	---	---	---	---	950	---	---
	05/23/2017	---	---	218	0.96	---	149	---	---	---	---	744	---	---
Dup	05/23/2017	---	---	221	0.96	---	149	---	---	---	---	722	---	---
	10/12/2017	---	---	212	0.96	---	149	---	---	---	---	845	---	---
	5/9/2018	---	---	206	0.82	---	143	---	---	---	---	828	---	---
	10/10/2018	---	---	264	0.99	---	156	---	---	---	---	781	---	---
Dup	6/19/2019							Not Sampled, Insufficient Water in Well						
	11/26/2019	---	---	259	1.58	---	142	---	---	---	---	1,140	---	---
	11/26/2019	---	---	263	1.61	---	143	---	---	---	---	1,050	---	---

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
RW-1	10/20/2000	<1.00	330.0	1,500	1.70	5.20	330	107	29.60	50.00	843.0	3,200	---	---
	10/14/2002	<0.10	327.0	1,150	---	---	340	60	25.50	64.30	820.0	2,720	---	<0.10
	12/27/2002	<0.10	294.0	1,300	---	---	330	123	40.30	56.80	933.0	3,190	---	<0.10
	2/18/2003	<0.10	300.0	1,150	---	---	316	80	25.70	53.00	721.0	2,690	---	<0.10
	6/2/2003	<1.00	276.0	1,500	2.05	5.34	275	194	67.21	40.80	923.0	4,070	---	<1.00
	8/25/2003	<1.00	298.0	1,190	2.01	6.15	278	117	32.70	46.10	705.0	2,940	---	<1.00
	11/7/2003	<1.00	298.0	1,300	2.13	5.56	266	166	48.10	51.70	106.0	3,240	---	<1.00
	2/5/2004	<1.00	292.0	1,270	2.22	5.92	246	148	44.70	53.80	704.0	2,780	---	<1.00
	5/6/2004	<1.00	310.0	1,100	<3.00	6.62	235	104	28.30	53.80	635.0	2,840	---	<1.00
	5/6/2004	<1.00	288.0	1,040	<3.00	6.64	243	90	24.10	44.50	642.0	2,705	---	<1.00
Dup	8/4/2004	<0.10	284.0	1,120	---	---	290	45	33.00	86.90	785.0	2,250	---	<0.10
	8/4/2004	<0.10	288.0	1,130	---	---	274	45	31.60	84.00	961.0	2,550	---	<0.10
Dup	2/11/2005	<1.00	262.0	1,730	3.59	8.93	217	172	51.50	84.00	910.0	3,995	---	<1.00
	2/11/2005	<1.00	268.0	1,690	2.00	8.59	224	159	46.40	81.00	813.0	3,170	---	<1.00
Dup	8/4/2005	<1.00	252.0	2,470	1.26	5.80	188	262	76.10	87.50	1,090.0	5,120	---	<1.00
	2/23/2006	<10.00	290.0	2,400	<2.5	8.90	350	234	67.60	70.40	762.0	4,680	---	<10.00
Dup	8/25/2006	<10.00	290.0	2,300	<5	4.41	440	281	77.30	68.50	1,040.0	5,610	---	<10.00
	8/25/2006	<10.00	300.0	2,300	<5	4.60	450	272	77.30	67.10	1,030.0	5,570	---	<10.00
Dup	2/28/2007	<10.00	300.0	3,100	<0.5	3.50	590	353	97.70	82.20	848.0	7,400	---	<10.00
	2/28/2007	<10.00	290.0	3,200	<0.5	3.50	600	416	115.00	83.40	878.0	7,280	---	<10.00
Dup	8/21/2007	<10.00	265.0	4,100	0.30	3.54	620	656	193.00	72.60	1,640.0	11,300	---	265.00
	8/21/2007	<10.00	263.0	4,100	0.10	3.38	600	655	192.00	72.50	1,630.0	11,400	---	263.00
Dup	2/20/2008	<5.00	473.0	5,130	0.56	6.80	677	892	255.00	126.00	1,810.0	11,000	---	<5.00
	2/20/2008	<5.00	231.0	5,120	0.55	6.78	674	888	252.00	126.00	1,800.0	10,800	---	<5.00
Dup	8/12/2008	<1.53	255.0	4,650	1.06	6.43	628	816	232.00	107.00	1,770.0	11,000	---	<1.53
	8/12/2008	<1.53	229.0	4,600	1.05	6.37	612	778	222.00	105.00	1,740.0	10,900	---	<1.53
Dup	2/20/2009	<5.00	260.0	4,600	0.69	1.40	690	680	200.00	84.00	1,700.0	11,000	---	<5.00
	2/20/2009	<5.00	240.0	4,400	0.65	4.20	630	660	190.00	83.00	1,600.0	11,000	---	<5.00
Dup	7/29/2009	<5.00	240.0	4,300	0.73	3.30	620	650	220.00	94.00	1,700.0	10,000	---	<5.00
	7/29/2009	<5.00	240.0	4,200	0.72	3.70	600	640	220.00	95.00	1,700.0	9,900	---	<5.00
Dup	2/25/2010	<5.00	263.0	4,890	0.34	4.28	650	680	180.00	75.60	1,650.0	8,870	---	<5.00
	7/28/2010	<5.00	254.0	2,920	0.77	4.98	455	442	132.00	59.50	1,310.0	7,200	---	<5.00
Dup	2/22/2012	<5.00	314.0	2,030	1.03	6.05	449	256	69.00	43.80	1,020.0	4,860	---	<5.00
	2/22/2012	<5.00	317.0	2,080	0.96	5.39	400	239	69.20	43.70	943.0	4,300	---	<5.00
8/29/2012 NS														

Appendix C
Cumulative Summary of Groundwater Analytical Results
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



Monitoring Well ID	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)		NA	NA	250	1.60	10	600	NA	NA	NA	NA	1,000	NA	NA
Dup	2/21/2013	<6.00	339.0	1,340	0.94	5.18	411	172	48.20	36.80	876.0	3,120	---	<6.00
	2/21/2013	<6.00	341.0	1,340	0.93	5.15	432	172	46.90	34.80	827.0	3,110	---	<6.00
Dup	8/14/2013	<6.00	298.0	1,170	1.22	4.52	389	127	34.60	30.80	724.0	2,400	---	<6.00
	8/14/2013	<6.00	311.0	1,230	1.36	4.79	416	126	35.50	31.10	704.0	2,480	---	<6.00
Dup	4/3/2014	<10.00	382.0	1,120	1.25	4.12	345	111	30.50	28.40	667.0	2,300	---	<10.00
	4/3/2014	<10.00	427.0	1,280	1.23	0.58	375	114	30.10	29.90	652.0	1,840	---	<10.00
Dup	10/9/2014	<4.00	318.0	867	0.84	4.32 J	293	101	28.10	29.90	645.0	2,190	---	<4.00
	10/9/2014	<4.00	317.0	847	0.73	4.30 J	295	101	27.80	29.60	640.0	2,290	---	<4.00
	6/25/2015	---	---	908	<2.00	---	326	---	---	---	---	2,550	---	---
	10/6/2015	---	---	920	<20.0	---	282	---	---	---	---	2,230 J	---	---
	6/22/2016	Unable to sample due to pump												
	10/06/2016	Unable to sample due to pump												
	05/23/2017	Unable to sample due to pump												
	10/12/2017	Unable to sample due to pump												
	5/9/2018	Unable to sample due to pump												
	10/9/2018	Unable to sample due to pump												
	6/19/2019	Unable to sample due to pump												
	11/25/2019	Unable to sample due to pump												
Notes 1. mg/L: Milligrams per liter 2. <: Concentration below test method detection limit 3. -: No data available 4. NS: Not Sampled 5. RW: Recovery well 6. WW: Water well 7. Detected concentrations exceeding the NMWQCC standard are bolded 8. DUP: Duplicate Sample 9. J: Estimated Concentration 10. B: This Qualifier indicates that the analyte is an estimated value between the RL and the MDL 11. All analyses prior to 10/14/02 conducted by Trace Analysis, Inc., Lubbock, TX 12. Analyses from 10/14/02 conducted by Environmental Lab of Texas, Odessa, TX 13. Analyses from 5/30/03 through 08/2005 conducted by Trace Analysis Inc., Lubbock, TX 14. Analyses from 02/2006 through 08/2007, conducted by Pace Analytical, St. Rose, LA and Greenbay, WI Laboratories 15. Analyses from 02/2008 through 08/2009, conducted by Test America, Houston, TX 16. Analyses from 02/2010 through 10/2013, conducted by ALS Environmental, Houston, TX 17. Analyses from 04/2014 to present conducted by Xenco Laboratories, Odessa, TX 18. U: Not detected above the associated reporting limit 19. NA: Not applicable														

APPENDIX D

Analytical Reports





Environment Testing
TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 600-187355-1

Client Project/Site: GL Erwin

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Mr. Brett Krehbiel

Authorized for release by:

7/3/2019 2:03:38 PM

Jasmine Turner, Project Management Assistant I
(713)690-4444

jasmine.turner@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

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

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

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

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Laboratory Job ID: 600-187355-1

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Eurofins TestAmerica, Houston job number 600-187355-1 and consists of:

- ☒ R1 - Field chain-of-custody documentation;
- ☒ R2 - Sample identification cross-reference;
- ☒ R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☒ R5 - Test reports/summary forms for blank samples;
- ☒ R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- ☒ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☒ R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jasmine Turner, for Sachin Kudchadkar

Name (printed)



Signature

7/3/2019

Date

Senior Project Manager

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	7/3/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-187355-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	7/3/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-187355-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	7/3/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-187355-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER # ¹	Description
R07C	<p>Method 300.0: 600-187355-17 MS and 600-187355-17 MSD recovered below QC limits for the following analyte:Chloride.</p> <p>Method 300.0: 600-187355-2 MS and 600-187355-2 MSD recovered below QC limits for the following analyte:Chloride.</p> <p>Method 300.0: 600-187355-24 MS and 600-187355-24 MSD recovered below QC limits for the following analyte:Chloride.</p>
	<ol style="list-style-type: none"> 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Detection Check Standard

TestAmerica Houston

Matrix: Water
Method: EPA 300/SW-846 9056A
Date Analyzed: 2/19/2019
Job #: 600-178696
TALS Batch: 258669
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	ML
Bromide	CHWC11	0.101	0.200	0.318	0.4
Chloride	CHWC11	0.053	0.200	0.278	0.4
Fluoride	CHWC11	0.060	0.200	0.237	0.2
Nitrate as N	CHWC11	0.025	0.200	0.291	0.2
Nitrite as N	CHWC11	0.030	0.400	0.235	0.2
Sulfate	CHWC11	0.096	0.400	0.762	0.5

DCS = Detection Check Standard

ML = Method Quantitation Limit

Page 1 of 1

7/3/2019

Detection Check Standard

TestAmerica Houston

Matrix: Water
Method: SM 2540C
Date Analyzed: 1/15/2019
Job #: 600-174067
TALS Batch: 256205
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Total Dissolved Solids	NOEQUIP	10.000	10.800	8.000	10

DCS = Detection Check Standard

MQL = Method Quantitation Limit

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Job ID: 600-187355-1**Laboratory: Eurofins TestAmerica, Houston****Narrative**

Job Narrative
600-187355-1

Comments

No additional comments.

Receipt

The samples were received on 6/20/2019 10:04 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.6° C, 3.3° C and 3.9° C.

All applicable analytical narratives can be found in the TRRP Checklist section of this report.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-187355-1	MW - 29	Water	06/19/19 13:26	06/20/19 10:04	
600-187355-2	MW - 4	Water	06/19/19 13:20	06/20/19 10:04	
600-187355-3	SW - MW	Water	06/19/19 13:15	06/20/19 10:04	
600-187355-4	MW - 1	Water	06/19/19 13:04	06/20/19 10:04	
600-187355-5	MW - 2	Water	06/19/19 12:53	06/20/19 10:04	
600-187355-6	MW - 5	Water	06/19/19 12:47	06/20/19 10:04	
600-187355-7	MW - 3	Water	06/19/19 12:41	06/20/19 10:04	
600-187355-8	MW - 6	Water	06/19/19 12:36	06/20/19 10:04	
600-187355-9	MW - 16	Water	06/19/19 12:28	06/20/19 10:04	
600-187355-10	MW - 8	Water	06/19/19 12:21	06/20/19 10:04	
600-187355-11	DUP - 2	Water	06/19/19 00:00	06/20/19 10:04	
600-187355-12	MW - 7	Water	06/19/19 12:12	06/20/19 10:04	
600-187355-13	MW - 13	Water	06/19/19 12:05	06/20/19 10:04	
600-187355-14	MW - 30	Water	06/19/19 12:00	06/20/19 10:04	
600-187355-15	MW - 19	Water	06/19/19 11:39	06/20/19 10:04	
600-187355-16	MW -14	Water	06/19/19 11:22	06/20/19 10:04	
600-187355-17	MW - 17	Water	06/19/19 11:19	06/20/19 10:04	
600-187355-18	MW - 12	Water	06/19/19 10:09	06/20/19 10:04	
600-187355-19	MW - 15	Water	06/19/19 10:02	06/20/19 10:04	
600-187355-20	MW - 20	Water	06/19/19 09:53	06/20/19 10:04	
600-187355-21	MW - 21	Water	06/19/19 09:42	06/20/19 10:04	
600-187355-22	DUP - 1	Water	06/19/19 00:00	06/20/19 10:04	
600-187355-23	MW - 24	Water	06/19/19 09:34	06/20/19 10:04	
600-187355-24	MW - 23	Water	06/19/19 09:23	06/20/19 10:04	
600-187355-25	MW - 25	Water	06/19/19 09:01	06/20/19 10:04	
600-187355-26	EB - 1	Water	06/19/19 09:03	06/20/19 10:04	
600-187355-27	W - MW	Water	06/19/19 08:39	06/20/19 10:04	
600-187355-28	MW - 9	Water	06/19/19 08:32	06/20/19 10:04	
600-187355-29	MW - 22	Water	06/19/19 08:24	06/20/19 10:04	
600-187355-30	MW - 26	Water	06/19/19 08:14	06/20/19 10:04	
600-187355-31	MW - 28	Water	06/19/19 08:03	06/20/19 10:04	

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 29

Date Collected: 06/19/19 13:26

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2770		0.400	0.0534	mg/L	-		06/28/19 00:54	100

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8320		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 4

Date Collected: 06/19/19 13:20

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2550		0.400	0.0534	mg/L	-		06/28/19 01:54	100

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6390		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: SW - MW

Date Collected: 06/19/19 13:15

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	919		0.400	0.0534	mg/L	-		06/28/19 02:54	100

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2460		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 1

Date Collected: 06/19/19 13:04

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	412		0.400	0.0534	mg/L	-		06/28/19 03:14	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1340		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 2

Date Collected: 06/19/19 12:53

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	726		0.400	0.0534	mg/L	-		06/28/19 03:34	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1910		10.0	10.0	mg/L	-		06/25/19 14:43	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 5

Date Collected: 06/19/19 12:47

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		0.400	0.0534	mg/L	-		06/28/19 03:54	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1360		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 3

Date Collected: 06/19/19 12:41

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	521		0.400	0.0534	mg/L	-		06/28/19 04:14	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1250		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 6

Date Collected: 06/19/19 12:36

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-8

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	335		0.400	0.0534	mg/L	-		06/28/19 04:34	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1250		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 16

Date Collected: 06/19/19 12:28

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-9

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		0.400	0.0534	mg/L	-		06/28/19 04:54	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1060		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 8

Date Collected: 06/19/19 12:21

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-10

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	353		0.400	0.0534	mg/L	-		06/28/19 07:14	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1250		10.0	10.0	mg/L	-		06/25/19 14:43	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: DUP - 2

Date Collected: 06/19/19 00:00

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-11

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2520		0.400	0.0534	mg/L	-		06/28/19 07:34	200

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6160		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 7

Date Collected: 06/19/19 12:12

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-12

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	147		0.400	0.0534	mg/L	-		06/28/19 07:54	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	806		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 13

Date Collected: 06/19/19 12:05

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	817		0.400	0.0534	mg/L	-		06/28/19 08:14	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3000		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 30

Date Collected: 06/19/19 12:00

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-14

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10500		0.400	0.0534	mg/L	-		06/28/19 08:34	500

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26800		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 19

Date Collected: 06/19/19 11:39

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2990		0.400	0.0534	mg/L	-		06/28/19 08:54	200

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9720		10.0	10.0	mg/L	-		06/25/19 14:43	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW -14

Date Collected: 06/19/19 11:22

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10700		0.400	0.0534	mg/L	-		06/28/19 13:37	500

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26500		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 17

Date Collected: 06/19/19 11:19

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-17

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	367		0.400	0.0534	mg/L	-		06/28/19 13:57	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1050		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 12

Date Collected: 06/19/19 10:09

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-18

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1920		0.400	0.0534	mg/L	-		06/28/19 14:57	100

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6870		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 15

Date Collected: 06/19/19 10:02

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-19

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	626		0.400	0.0534	mg/L	-		06/28/19 15:17	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1050		10.0	10.0	mg/L	-		06/25/19 14:43	1

Client Sample ID: MW - 20

Date Collected: 06/19/19 09:53

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-20

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180		0.400	0.0534	mg/L	-		06/28/19 15:37	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3420		10.0	10.0	mg/L	-		06/25/19 14:43	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 21

Date Collected: 06/19/19 09:42

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-21

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		0.400	0.0534	mg/L	-		06/28/19 15:57	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1030		10.0	10.0	mg/L	-		06/25/19 14:33	1

Client Sample ID: DUP - 1

Date Collected: 06/19/19 00:00

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-22

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9750		0.400	0.0534	mg/L	-		06/28/19 16:58	1000

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22000		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 24

Date Collected: 06/19/19 09:34

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-23

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1660		0.400	0.0534	mg/L	-		06/28/19 17:18	200

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6500		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 23

Date Collected: 06/19/19 09:23

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-24

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	359		0.400	0.0534	mg/L	-		06/28/19 17:38	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1330		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 25

Date Collected: 06/19/19 09:01

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-25

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2310		0.400	0.0534	mg/L	-		06/28/19 18:38	200

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7160		10.0	10.0	mg/L	-		06/26/19 15:14	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: EB - 1

Date Collected: 06/19/19 09:03

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-26

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L	-		07/01/19 15:41	1

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	564		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: W - MW

Date Collected: 06/19/19 08:39

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-27

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		0.400	0.0534	mg/L	-		06/28/19 19:18	20

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	726		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 9

Date Collected: 06/19/19 08:32

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-28

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		0.400	0.0534	mg/L	-		06/28/19 19:38	50

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	988		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 22

Date Collected: 06/19/19 08:24

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-29

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3070		0.400	0.0534	mg/L	-		06/28/19 19:58	200

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9460		10.0	10.0	mg/L	-		06/26/19 15:14	1

Client Sample ID: MW - 26

Date Collected: 06/19/19 08:14

Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-30

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	685		0.400	0.0534	mg/L	-		06/28/19 20:58	100

General Chemistry

Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1980		10.0	10.0	mg/L	-		06/26/19 15:14	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 28
Date Collected: 06/19/19 08:03
Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-31
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4820		0.400	0.0534	mg/L	-		06/28/19 21:18	500

General Chemistry									
Analyte	Result	Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14000		10.0	10.0	mg/L	-		06/26/19 15:14	1

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

General Chemistry

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Glossary

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

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-268164/35

Matrix: Water

Analysis Batch: 268164

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			06/28/19 00:14	1

Lab Sample ID: LCS 600-268164/36

Matrix: Water

Analysis Batch: 268164

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.30		mg/L		96	90 - 110

Lab Sample ID: 600-187355-2 MS

Matrix: Water

Analysis Batch: 268164

Client Sample ID: MW - 4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2550		1000	3170	N1	mg/L		62	80 - 120

Lab Sample ID: 600-187355-2 MSD

Matrix: Water

Analysis Batch: 268164

Client Sample ID: MW - 4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2550		1000	3172	N1	mg/L		62	80 - 120	0	20

Lab Sample ID: MB 600-268268/4

Matrix: Water

Analysis Batch: 268268

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			06/28/19 12:57	1

Lab Sample ID: LCS 600-268268/5

Matrix: Water

Analysis Batch: 268268

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.60		mg/L		98	90 - 110

Lab Sample ID: 600-187355-17 MS

Matrix: Water

Analysis Batch: 268268

Client Sample ID: MW - 17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	367		200	522.9	N1	mg/L		78	80 - 120

Lab Sample ID: 600-187355-17 MSD

Matrix: Water

Analysis Batch: 268268

Client Sample ID: MW - 17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	367		200	525.2	N1	mg/L		79	80 - 120	0	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 600-187355-24 MS

Matrix: Water

Analysis Batch: 268268

Client Sample ID: MW - 23

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	359		200	511.8	N1	mg/L		77	80 - 120

Lab Sample ID: 600-187355-24 MSD

Matrix: Water

Analysis Batch: 268268

Client Sample ID: MW - 23

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	359		200	512.5	N1	mg/L		77	80 - 120	0	20

Lab Sample ID: MB 600-268404/4

Matrix: Water

Analysis Batch: 268404

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.0534	U	0.400	0.0534	mg/L			07/01/19 14:01	1

Lab Sample ID: LCS 600-268404/5

Matrix: Water

Analysis Batch: 268404

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.30		mg/L		96	90 - 110

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

Lab Sample ID: MB 600-267963/1

Matrix: Water

Analysis Batch: 267963

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			06/25/19 14:33	1

Lab Sample ID: LCS 600-267963/2

Matrix: Water

Analysis Batch: 267963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1705		mg/L		95	90 - 110

Lab Sample ID: MB 600-267965/1

Matrix: Water

Analysis Batch: 267965

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			06/25/19 14:43	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

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

Lab Sample ID: 600-187355-6 DU

Matrix: Water

Analysis Batch: 267965

Client Sample ID: MW - 5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1360		1422		mg/L	-	4	10

Lab Sample ID: 600-187355-12 DU

Matrix: Water

Analysis Batch: 267965

Client Sample ID: MW - 7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	806		796.0		mg/L	-	1	10

Lab Sample ID: MB 600-268092/1

Matrix: Water

Analysis Batch: 268092

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L	-		06/26/19 15:14	1

Lab Sample ID: LCS 600-268092/2

Matrix: Water

Analysis Batch: 268092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1789		mg/L	-	99	90 - 110

Lab Sample ID: 600-187355-27 DU

Matrix: Water

Analysis Batch: 268092

Client Sample ID: W - MW

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	726		774.0		mg/L	-	6	10

Default Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Method: 300.0 - Anions, Ion Chromatography

Analyte	MQL	MDL	Units
Chloride	0.400	0.0534	mg/L

General Chemistry

Analyte	MQL	MDL	Units
Total Dissolved Solids	10.0	10.0	mg/L

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

HPLC/IC

Analysis Batch: 268164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-1	MW - 29	Total/NA	Water	300.0	
600-187355-2	MW - 4	Total/NA	Water	300.0	
600-187355-3	SW - MW	Total/NA	Water	300.0	
600-187355-4	MW - 1	Total/NA	Water	300.0	
600-187355-5	MW - 2	Total/NA	Water	300.0	
600-187355-6	MW - 5	Total/NA	Water	300.0	
600-187355-7	MW - 3	Total/NA	Water	300.0	
600-187355-8	MW - 6	Total/NA	Water	300.0	
600-187355-9	MW - 16	Total/NA	Water	300.0	
600-187355-10	MW - 8	Total/NA	Water	300.0	
600-187355-11	DUP - 2	Total/NA	Water	300.0	
600-187355-12	MW - 7	Total/NA	Water	300.0	
600-187355-13	MW - 13	Total/NA	Water	300.0	
600-187355-14	MW - 30	Total/NA	Water	300.0	
600-187355-15	MW - 19	Total/NA	Water	300.0	
MB 600-268164/35	Method Blank	Total/NA	Water	300.0	
LCS 600-268164/36	Lab Control Sample	Total/NA	Water	300.0	
600-187355-2 MS	MW - 4	Total/NA	Water	300.0	
600-187355-2 MSD	MW - 4	Total/NA	Water	300.0	

Analysis Batch: 268268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-16	MW - 14	Total/NA	Water	300.0	
600-187355-17	MW - 17	Total/NA	Water	300.0	
600-187355-18	MW - 12	Total/NA	Water	300.0	
600-187355-19	MW - 15	Total/NA	Water	300.0	
600-187355-20	MW - 20	Total/NA	Water	300.0	
600-187355-21	MW - 21	Total/NA	Water	300.0	
600-187355-22	DUP - 1	Total/NA	Water	300.0	
600-187355-23	MW - 24	Total/NA	Water	300.0	
600-187355-24	MW - 23	Total/NA	Water	300.0	
600-187355-25	MW - 25	Total/NA	Water	300.0	
600-187355-27	W - MW	Total/NA	Water	300.0	
600-187355-28	MW - 9	Total/NA	Water	300.0	
600-187355-29	MW - 22	Total/NA	Water	300.0	
600-187355-30	MW - 26	Total/NA	Water	300.0	
600-187355-31	MW - 28	Total/NA	Water	300.0	
MB 600-268268/4	Method Blank	Total/NA	Water	300.0	
LCS 600-268268/5	Lab Control Sample	Total/NA	Water	300.0	
600-187355-17 MS	MW - 17	Total/NA	Water	300.0	
600-187355-17 MSD	MW - 17	Total/NA	Water	300.0	
600-187355-24 MS	MW - 23	Total/NA	Water	300.0	
600-187355-24 MSD	MW - 23	Total/NA	Water	300.0	

Analysis Batch: 268404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-26	EB - 1	Total/NA	Water	300.0	
MB 600-268404/4	Method Blank	Total/NA	Water	300.0	
LCS 600-268404/5	Lab Control Sample	Total/NA	Water	300.0	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

General Chemistry

Analysis Batch: 267963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-21	MW - 21	Total/NA	Water	SM 2540C	
MB 600-267963/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-267963/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 267965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-1	MW - 29	Total/NA	Water	SM 2540C	
600-187355-2	MW - 4	Total/NA	Water	SM 2540C	
600-187355-3	SW - MW	Total/NA	Water	SM 2540C	
600-187355-4	MW - 1	Total/NA	Water	SM 2540C	
600-187355-5	MW - 2	Total/NA	Water	SM 2540C	
600-187355-6	MW - 5	Total/NA	Water	SM 2540C	
600-187355-7	MW - 3	Total/NA	Water	SM 2540C	
600-187355-8	MW - 6	Total/NA	Water	SM 2540C	
600-187355-9	MW - 16	Total/NA	Water	SM 2540C	
600-187355-10	MW - 8	Total/NA	Water	SM 2540C	
600-187355-11	DUP - 2	Total/NA	Water	SM 2540C	
600-187355-12	MW - 7	Total/NA	Water	SM 2540C	
600-187355-13	MW - 13	Total/NA	Water	SM 2540C	
600-187355-14	MW - 30	Total/NA	Water	SM 2540C	
600-187355-15	MW - 19	Total/NA	Water	SM 2540C	
600-187355-16	MW - 14	Total/NA	Water	SM 2540C	
600-187355-17	MW - 17	Total/NA	Water	SM 2540C	
600-187355-18	MW - 12	Total/NA	Water	SM 2540C	
600-187355-19	MW - 15	Total/NA	Water	SM 2540C	
600-187355-20	MW - 20	Total/NA	Water	SM 2540C	
MB 600-267965/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-267965/2	Lab Control Sample	Total/NA	Water	SM 2540C	
600-187355-6 DU	MW - 5	Total/NA	Water	SM 2540C	
600-187355-12 DU	MW - 7	Total/NA	Water	SM 2540C	

Analysis Batch: 268092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187355-22	DUP - 1	Total/NA	Water	SM 2540C	
600-187355-23	MW - 24	Total/NA	Water	SM 2540C	
600-187355-24	MW - 23	Total/NA	Water	SM 2540C	
600-187355-25	MW - 25	Total/NA	Water	SM 2540C	
600-187355-26	EB - 1	Total/NA	Water	SM 2540C	
600-187355-27	W - MW	Total/NA	Water	SM 2540C	
600-187355-28	MW - 9	Total/NA	Water	SM 2540C	
600-187355-29	MW - 22	Total/NA	Water	SM 2540C	
600-187355-30	MW - 26	Total/NA	Water	SM 2540C	
600-187355-31	MW - 28	Total/NA	Water	SM 2540C	
MB 600-268092/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-268092/2	Lab Control Sample	Total/NA	Water	SM 2540C	
600-187355-27 DU	W - MW	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 29

Lab Sample ID: 600-187355-1

Date Collected: 06/19/19 13:26

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			268164	06/28/19 00:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 4

Lab Sample ID: 600-187355-2

Date Collected: 06/19/19 13:20

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			268164	06/28/19 01:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: SW - MW

Lab Sample ID: 600-187355-3

Date Collected: 06/19/19 13:15

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			268164	06/28/19 02:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 1

Lab Sample ID: 600-187355-4

Date Collected: 06/19/19 13:04

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268164	06/28/19 03:14	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 2

Lab Sample ID: 600-187355-5

Date Collected: 06/19/19 12:53

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268164	06/28/19 03:34	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 5

Lab Sample ID: 600-187355-6

Date Collected: 06/19/19 12:47

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268164	06/28/19 03:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 3**Lab Sample ID: 600-187355-7****Date Collected: 06/19/19 12:41****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268164	06/28/19 04:14	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 6**Lab Sample ID: 600-187355-8****Date Collected: 06/19/19 12:36****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268164	06/28/19 04:34	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 16**Lab Sample ID: 600-187355-9****Date Collected: 06/19/19 12:28****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268164	06/28/19 04:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 8**Lab Sample ID: 600-187355-10****Date Collected: 06/19/19 12:21****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268164	06/28/19 07:14	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: DUP - 2**Lab Sample ID: 600-187355-11****Date Collected: 06/19/19 00:00****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			268164	06/28/19 07:34	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 7**Lab Sample ID: 600-187355-12****Date Collected: 06/19/19 12:12****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268164	06/28/19 07:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 13**Lab Sample ID: 600-187355-13****Date Collected: 06/19/19 12:05****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268164	06/28/19 08:14	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 30**Lab Sample ID: 600-187355-14****Date Collected: 06/19/19 12:00****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			268164	06/28/19 08:34	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 19**Lab Sample ID: 600-187355-15****Date Collected: 06/19/19 11:39****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			268164	06/28/19 08:54	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW -14**Lab Sample ID: 600-187355-16****Date Collected: 06/19/19 11:22****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			268268	06/28/19 13:37	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 17**Lab Sample ID: 600-187355-17****Date Collected: 06/19/19 11:19****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268268	06/28/19 13:57	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 12**Lab Sample ID: 600-187355-18****Date Collected: 06/19/19 10:09****Matrix: Water****Date Received: 06/20/19 10:04**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			268268	06/28/19 14:57	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 15

Lab Sample ID: 600-187355-19

Date Collected: 06/19/19 10:02

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268268	06/28/19 15:17	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 20

Lab Sample ID: 600-187355-20

Date Collected: 06/19/19 09:53

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268268	06/28/19 15:37	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267965	06/25/19 14:43	DTN	TAL HOU

Client Sample ID: MW - 21

Lab Sample ID: 600-187355-21

Date Collected: 06/19/19 09:42

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268268	06/28/19 15:57	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	267963	06/25/19 14:33	DTN	TAL HOU

Client Sample ID: DUP - 1

Lab Sample ID: 600-187355-22

Date Collected: 06/19/19 00:00

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1000			268268	06/28/19 16:58	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: MW - 24

Lab Sample ID: 600-187355-23

Date Collected: 06/19/19 09:34

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			268268	06/28/19 17:18	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: MW - 23

Lab Sample ID: 600-187355-24

Date Collected: 06/19/19 09:23

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268268	06/28/19 17:38	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 25

Lab Sample ID: 600-187355-25

Date Collected: 06/19/19 09:01

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			268268	06/28/19 18:38	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: EB - 1

Lab Sample ID: 600-187355-26

Date Collected: 06/19/19 09:03

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			268404	07/01/19 15:41	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: W - MW

Lab Sample ID: 600-187355-27

Date Collected: 06/19/19 08:39

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			268268	06/28/19 19:18	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: MW - 9

Lab Sample ID: 600-187355-28

Date Collected: 06/19/19 08:32

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			268268	06/28/19 19:38	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: MW - 22

Lab Sample ID: 600-187355-29

Date Collected: 06/19/19 08:24

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			268268	06/28/19 19:58	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Client Sample ID: MW - 26

Lab Sample ID: 600-187355-30

Date Collected: 06/19/19 08:14

Matrix: Water

Date Received: 06/20/19 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			268268	06/28/19 20:58	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Client Sample ID: MW - 28
Date Collected: 06/19/19 08:03
Date Received: 06/20/19 10:04

Lab Sample ID: 600-187355-31
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			268268	06/28/19 21:18	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	268092	06/26/19 15:14	DTN	TAL HOU

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-187355-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

Turner, Jasmine M.

From: Kudchadkar, Sachin
Sent: Thursday, June 20, 2019 4:10 PM
To: Turner, Jasmine M.
Subject: FW: Signed GL Erwin COCs
Attachments: GL Erwin COCs.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Sachin G. Kudchadkar

Phone: 713.690.4444 Ext 114
Direct: 713.358.2004

E-mail: Sachin.Kudchadkar@testamericainc.com

From: Foord, Scott [<mailto:William.Foord@arcadis.com>]
Sent: Thursday, June 20, 2019 10:48 AM
To: Kudchadkar, Sachin
Cc: Grant, Russell; Longwell, Jerry
Subject: Signed GL Erwin COCs

-External Email-

Sachin,

I hope all is well. Please see attached signed COCs for GL Erwin, samples were shipped yesterday I believe and we forgot to sign, please let me know if you need any additional information.

Thanks,
Scott

Scott Foord, PG, RSO | AFS Group Service Leader – CPM | william.foord@arcadis.com
Arcadis | Arcadis U.S., Inc.
10205 Westheimer Road Suite 800 Houston TX | 77042 | USA
T. +1 713 953 4853 | M. +1 281 725 7477

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Eurofins TestAmerica, Houston

6310 Rothway Street

Houston, TX 77060

Phone: (713) 690-4444 Fax: (713) 690-5646

Chain of Custody Record

Midland
#264

Client Information		Sample ID: JUL 1/13		Lab Name: Kudachkar, Sachin G		Company: ARCADIS U.S., Inc.		COC for: 800-5939-18801.1	
Client Contact: Trudy Rodriguez		Phone: (713) 690-4444		Email: sachin.kudachkar@testamerica-hc.com		Page 2 of 4		Lab #	
Address: 1004 North Big Spring Suite 121		City: Midland		State: Tx		Zip: 79701		Preservation Codes:	
Phone: (713) 690-4444		Fax: (713) 690-5646		Email: trudy.rodriguez@arcadis-us.com		Project # 50003622		Project Name Keppan Boiler	
Purchase Order not required		WDR		Sample Date		Sample Time		Sample Type (C=cont, G=grab)	
Matrix (Preserve, Churn, etc.)		Preservation Code:		Perform Rinsing (Yes or No)		Total Number of Containers		Special Instructions/Notes:	
MW-7		12/12		G		Water			
MW-13		12/05		G		Water			
MW-30		12/00		G		Water			
MW-19		11/19		G		Water			
MW-14		11/22		G		Water			
MW-17		11/19		G		Water			
MW-12		10/09		G		Water			
MW-15		10/02		G		Water			
MW-20		09/03		G		Water			
MW-21		09/02		G		Water			
Dup-1		---		G		Water			
Possible Hazard Identification		Passport B		Passport C		Passport D		Passport E	
Non-Hazard		Hazardous		Hazardous		Hazardous		Hazardous	
Decontamination Requested: I, II, III, IV, Other (specify)		Date		Time		Signature		Company	
Empty Kit Returned by:		Date		Time		Signature		Company	
Returned by:		Date		Time		Signature		Company	
Returned by:		Date		Time		Signature		Company	
Custody Seal (Intact):		Custody Seal No.:		Cooler Temp (46-50°C and Other Temp):		Cooler Temp (46-50°C and Other Temp):		Cooler Temp (46-50°C and Other Temp):	

Eurofins TestAmerica, Houston
6310 Railway Steel
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5846

Chain of Custody Record

Midland
#264[illegible]

Eurofins TestAmerica, Houston

6310 Rothway Street

Houston, TX 77040

Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Midland
#264

Client Information Client Contact: Trudy Rodriguez Company: ARCADIS U.S., Inc. Address: 1004 North Big Spring Suite 121 City: Midland State, Zip: TX, 79701 Phone: 916-786-5382(Tel) Email: trudy.rodriguez@arcadis-us.com Project Name: Midland - Chevron Site: <i>Ch Davis</i>		Sampler: <i>SAI RB</i> Lab PM: Kuchadkar, Sachin G E-Mail: sachin.kuchadkar@testamericainc.com		COC No: 600-68939-18801.1 Page: Page 1 of 4 Job #:	
Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WO #: Project #: 60003622 SSOW#:		Analysis Requested Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:			
Sample Identification <i>MW-29</i> <i>MW-4</i> <i>SW-MW</i> <i>MW-1</i> <i>MW-2</i> <i>MW-5</i> <i>MW-3</i> <i>MW-6</i> <i>MW-10</i> <i>MW-8</i> <i>DUP-2</i>		Sample Date <i>6/15/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i> <i>6/19/19</i>	Sample Time <i>1325</i> <i>1320</i> <i>1315</i> <i>1304</i> <i>1253</i> <i>1247</i> <i>1241</i> <i>1236</i> <i>1228</i> <i>1221</i> <i>1215</i>	Sample Type (C=Comp, G=grab) <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i> <i>G</i>	Matrix (W=Water, S=Solid, O=Other) Water Water Water Water Water Water Water Water Water Water
Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 2540C, Calcd, 300, ORGFM, 28D		Total Number of Containers			
Special Instructions/Note: 600-187355 Chain of Custody		Special Instructions/Note:			
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Relinquished by:		Date:		Company:	
Relinquished by:		Date:		Company:	
Relinquished by:		Date:		Company:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

**Midland
#264**

Chain of Custody Record

Eurofins TestAmerica, Houston
5310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Client Information				Carrier Tracking No(s)				COC No.			
Lab PM: Kuchadkar, Sachin G				600-68939-18801.1				Page 2 of 4			
E-Mail: sachin.kuchadkar@testamericainc.com											
Analysis Requested Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WFO #: Project #: 60003622 SSOW #: Project Name: Keegan Bouyer Address: 1004 North Big Spring Suite 121 City: Midland State, Zip: TX, 79701 Phone: 916-786-5382(Tel) Email: trudy.rodriguez@arcadis-us.com Site: GL Edwin				Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)				Special Instructions/Note:			
Sample Identification MW-7 MW-13 MW-30 MW-19 MW-14 MW-17 MW-12 MW-15 MW-20 MW-21 Dup-1				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Months				Special Instructions/QC Requirements:			
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For Months				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:				Method of Shipment:				Date:			
Relinquished by:				Received by:				Date/Time:			
Relinquished by:				Received by:				Date/Time:			
Relinquished by:				Received by:				Date/Time:			
Custody Seal No.: Yes No				Cooler Temperature(s) °C and Other Remarks:				Company			

Midland
#264

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

'19 JUN 20 10:04

Number of Coolers Received: 22

CF = correction factor

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

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

JP 6/20/19

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-187355-1

Login Number: 187355

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.9,2.6,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.



Environment Testing
TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 600-196673-1
Client Project/Site: GL Erwin

For:

ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Mr. Russell Grant

Authorized for release by:

12/20/2019 4:29:57 PM

Jasmine Turner, Project Management Assistant I
(713)690-4444

jasmine.turner@testamericainc.com

Designee for

Sachin Kudchadkar, Senior Project Manager
(713)690-4444

sachin.kudchadkar@testamericainc.com

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

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

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

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Laboratory Job ID: 600-196673-1

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Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Eurofins TestAmerica, Houston job number 600-196673-1 and consists of:

- ☒ R1 - Field chain-of-custody documentation;
- ☒ R2 - Sample identification cross-reference;
- ☒ R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- ☐ R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☒ R5 - Test reports/summary forms for blank samples;
- ☒ R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- ☒ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- ☒ R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Jasmine Turner, for Sachin Kudchadkar

Name (printed)



Signature

12/20/2019

Date

Senior Project Manager

Official Title (printed)

Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	12/20/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-196673-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			R03A
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				R05D
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	12/20/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-196673-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	Eurofins TestAmerica, Houston	LRC Date:	12/20/2019
Project Name:	GL Erwin	Laboratory Job Number:	600-196673-1
Reviewer Name:	Jasmine Turner, for Sachin Kudchadkar		

ER # ¹	Description
R03A	Method SM 2540C: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-25 (600-196673-1), MW-31 (600-196673-2), MW-11 (600-196673-3), MW-5 (600-196673-4), Southwest-MW (600-196673-5), West-MW (600-196673-6) and MW-4 (600-196673-7).
R05D	<p>Method 300.0: The method blank for analytical batch 600-282115 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282259 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282259 contained chloride and sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282368 contained chloride and sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282587 contained chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282642 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282782 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-282960 contained chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p> <p>Method 300.0: The method blank for analytical batch 600-283465 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.</p>
R07C	<p>Method 300.0: 600-196673-16 MS and 600-196673-16 MSD recovered below QC limits for the following analytes: Chloride, Sulfate. Matrix interference is suspected.</p> <p>Method 300.0: 600-196673-9 MS and 600-196673-9 MSD recovered below QC limits for the following analytes: Fluoride. Matrix interference is suspected.</p> <p>Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for chloride were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.</p> <p>Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for Fluoride were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.</p> <p>Method 300.0: The matrix spike duplicate (MSD) recovery for analytical batch 600-282782 was above QC limits for Fluoride. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.</p>
R10B	Method 300.0: The following samples were diluted due to the abundance of non-target analytes: DUP-1 (600-196673-23), MW-24 (600-196673-25), MW-32 (600-196673-26), MW-20 (600-196673-28) and MW-12 (600-196673-30). Elevated reporting limits (RLs) are provided for Fluoride.
<ol style="list-style-type: none"> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); NA = Not applicable; NR = Not reviewed; 	

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Water
Method: SW-846 9056 / EPA 300
Date Analyzed: 8/23/2019
Job #: 600-188237
TALS Batch: 272774
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bromide	CHWC16	0.101	0.200	0.306	0.4
Chloride	CHWC16	0.053	0.200	0.305	0.4
Fluoride	CHWC16	0.060	0.200	0.296	0.2
Nitrate as N	CHWC16	0.025	0.200	0.306	0.2
Nitrite as N	CHWC16	0.030	0.400	0.384	0.2
Sulfate	CHWC16	0.096	0.400	0.482	0.5

DCS = Detection Check Standard

MQL = Method Quantitation Limit

Detection Check Standard

EuroFins TestAmerica, Houston

Matrix: Water
Method: SM 2540C
Date Analyzed: 8/20/2019
Job #: 600-188237
TALS Batch: 272376
Units: mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Total Dissolved Solids	NOEQUIP	10.000	29.880	86.000	10

DCS = Detection Check Standard
MQL = Method Quantitation Limit

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Job ID: 600-196673-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-196673-1

Comments

No additional comments.

Receipt

The samples were received on 11/27/2019 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.4° C, 0.7° C and 1.1° C.

All applicable analytical narratives can be found in the TRRP Checklist section of this report.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-196673-1	MW-25	Water	11/24/19 13:08	11/27/19 10:15	
600-196673-2	MW-31	Water	11/24/19 13:21	11/27/19 10:15	
600-196673-3	MW-11	Water	11/24/19 14:49	11/27/19 10:15	
600-196673-4	MW-5	Water	11/24/19 14:55	11/27/19 10:15	
600-196673-5	Southwest-MW	Water	11/24/19 15:05	11/27/19 10:15	
600-196673-6	West-MW	Water	11/24/19 15:08	11/27/19 10:15	
600-196673-7	MW-4	Water	11/24/19 15:20	11/27/19 10:15	
600-196673-8	MW-10	Water	11/25/19 09:01	11/27/19 10:15	
600-196673-9	MW-29	Water	11/25/19 09:11	11/27/19 10:15	
600-196673-10	MW-3	Water	11/25/19 09:19	11/27/19 10:15	
600-196673-11	MW-6	Water	11/25/19 09:23	11/27/19 10:15	
600-196673-12	MW-28	Water	11/25/19 09:33	11/27/19 10:15	
600-196673-13	MW-26	Water	11/25/19 09:40	11/27/19 10:15	
600-196673-14	MW-22	Water	11/25/19 09:46	11/27/19 10:15	
600-196673-15	MW-9	Water	11/25/19 09:52	11/27/19 10:15	
600-196673-16	MW-1	Water	11/25/19 10:09	11/27/19 10:15	
600-196673-17	MW-2	Water	11/25/19 10:25	11/27/19 10:15	
600-196673-18	MW-7	Water	11/25/19 10:41	11/27/19 10:15	
600-196673-19	MW-13	Water	11/25/19 10:56	11/27/19 10:15	
600-196673-20	MW-30	Water	11/25/19 11:50	11/27/19 10:15	
600-196673-21	MW-14	Water	11/25/19 12:29	11/27/19 10:15	
600-196673-22	MW-19	Water	11/25/19 12:36	11/27/19 10:15	
600-196673-23	DUP-1	Water	11/25/19 00:00	11/27/19 10:15	
600-196673-24	MW-21	Water	11/25/19 12:44	11/27/19 10:15	
600-196673-25	MW-24	Water	11/25/19 12:50	11/27/19 10:15	
600-196673-26	MW-32	Water	11/25/19 13:06	11/27/19 10:15	
600-196673-27	MW-23	Water	11/25/19 13:40	11/27/19 10:15	
600-196673-28	MW-20	Water	11/25/19 13:46	11/27/19 10:15	
600-196673-29	MW-15	Water	11/25/19 13:54	11/27/19 10:15	
600-196673-30	MW-12	Water	11/25/19 14:00	11/27/19 10:15	
600-196673-31	MW-16	Water	11/25/19 14:10	11/27/19 10:15	
600-196673-32	MW-17	Water	11/25/19 14:19	11/27/19 10:15	
600-196673-33	MW-8	Water	11/25/19 14:39	11/27/19 10:15	
600-196673-34	WW-1	Water	11/26/19 10:33	11/27/19 10:15	
600-196673-35	DUP-2	Water	11/26/19 00:00	11/27/19 10:15	

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-25

Date Collected: 11/24/19 13:08

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	890	b	100	13.4	mg/L			12/05/19 13:09	250
Fluoride	1.77		1.00	0.301	mg/L			12/06/19 09:50	5
Sulfate	127		125	23.9	mg/L			12/05/19 13:09	250

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5790	H	100	100	mg/L			12/03/19 13:50	1

Client Sample ID: MW-31

Date Collected: 11/24/19 13:21

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	543	b	40.0	5.34	mg/L			12/05/19 13:41	100
Fluoride	1.55		1.00	0.301	mg/L			12/06/19 10:23	5
Sulfate	139		50.0	9.57	mg/L			12/05/19 13:41	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600	H	20.0	20.0	mg/L			12/03/19 13:50	1

Client Sample ID: MW-11

Date Collected: 11/24/19 14:49

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	816	b	100	13.4	mg/L			12/05/19 14:13	250
Fluoride	1.46		1.00	0.301	mg/L			12/06/19 10:55	5
Sulfate	269		25.0	4.79	mg/L			12/19/19 16:15	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6390	H	100	100	mg/L			12/03/19 13:50	1

Client Sample ID: MW-5

Date Collected: 11/24/19 14:55

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	289	b	20.0	2.67	mg/L			12/05/19 14:24	50
Fluoride	1.77		1.00	0.301	mg/L			12/06/19 11:06	5
Sulfate	193		25.0	4.79	mg/L			12/05/19 14:24	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1120	H	20.0	20.0	mg/L			12/03/19 13:50	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: Southwest-MW

Lab Sample ID: 600-196673-5

Date Collected: 11/24/19 15:05

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	772	b	40.0	5.34	mg/L			12/05/19 14:35	100
Fluoride	2.22		1.00	0.301	mg/L			12/06/19 11:16	5
Sulfate	260		50.0	9.57	mg/L			12/05/19 14:35	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2050	H	40.0	40.0	mg/L			12/03/19 13:50	1

Client Sample ID: West-MW

Lab Sample ID: 600-196673-6

Date Collected: 11/24/19 15:08

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	124	b	8.00	1.07	mg/L			12/06/19 11:42	20
Fluoride	1.30		0.200	0.0601	mg/L			12/09/19 09:16	1
Sulfate	153		10.0	1.91	mg/L			12/06/19 11:42	20

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	728	H	20.0	20.0	mg/L			12/03/19 13:50	1

Client Sample ID: MW-4

Lab Sample ID: 600-196673-7

Date Collected: 11/24/19 15:20

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180	b	100	13.4	mg/L			12/06/19 11:53	250
Fluoride	4.85		0.200	0.0601	mg/L			12/09/19 09:27	1
Sulfate	251		125	23.9	mg/L			12/06/19 11:53	250

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2090	H	100	100	mg/L			12/03/19 13:50	1

Client Sample ID: MW-10

Lab Sample ID: 600-196673-8

Date Collected: 11/25/19 09:01

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3040	b	200	26.7	mg/L			12/06/19 12:03	500
Fluoride	7.50		0.200	0.0601	mg/L			12/09/19 09:37	1
Sulfate	336		250	47.9	mg/L			12/06/19 12:03	500

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7510		40.0	40.0	mg/L			12/02/19 22:01	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-29

Lab Sample ID: 600-196673-9

Date Collected: 11/25/19 09:11

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1120	b	100	13.4	mg/L			12/06/19 12:14	250
Fluoride	5.58		0.200	0.0601	mg/L			12/09/19 10:10	1
Sulfate	164		125	23.9	mg/L			12/06/19 12:14	250

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4920		40.0	40.0	mg/L			12/02/19 22:01	1

Client Sample ID: MW-3

Lab Sample ID: 600-196673-10

Date Collected: 11/25/19 09:19

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	486	b	40.0	5.34	mg/L			12/06/19 12:47	100
Fluoride	3.43		1.00	0.301	mg/L			12/09/19 10:42	5
Sulfate	202		50.0	9.57	mg/L			12/06/19 12:47	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1540		20.0	20.0	mg/L			12/02/19 22:01	1

Client Sample ID: MW-6

Lab Sample ID: 600-196673-11

Date Collected: 11/25/19 09:23

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	487	b	40.0	5.34	mg/L			12/06/19 13:19	100
Fluoride	3.55		1.00	0.301	mg/L			12/09/19 10:53	5
Sulfate	186		50.0	9.57	mg/L			12/06/19 13:19	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1500		20.0	20.0	mg/L			12/02/19 22:01	1

Client Sample ID: MW-28

Lab Sample ID: 600-196673-12

Date Collected: 11/25/19 09:33

Matrix: Water

Date Received: 11/27/19 10:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4720	b	200	26.7	mg/L			12/06/19 13:51	500
Fluoride	4.66		1.00	0.301	mg/L			12/09/19 11:04	5
Sulfate	419		250	47.9	mg/L			12/06/19 13:51	500

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12000		100	100	mg/L			12/02/19 22:01	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-26

Date Collected: 11/25/19 09:40

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-13

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	789	b	40.0	5.34	mg/L			12/06/19 14:02	100
Fluoride	0.792		0.200	0.0601	mg/L			12/09/19 11:14	1
Sulfate	218		50.0	9.57	mg/L			12/06/19 14:02	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1840		40.0	40.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-22

Date Collected: 11/25/19 09:46

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-14

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4040	b	200	26.7	mg/L			12/06/19 14:13	500
Fluoride	2.16		1.00	0.301	mg/L			12/09/19 11:25	5
Sulfate	399		250	47.9	mg/L			12/06/19 14:13	500

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8840		100	100	mg/L			12/02/19 14:19	1

Client Sample ID: MW-9

Date Collected: 11/25/19 09:52

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-15

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	274	b	20.0	2.67	mg/L			12/09/19 15:23	50
Fluoride	1.29		0.200	0.0601	mg/L			12/10/19 12:07	1
Sulfate	156	b	25.0	4.79	mg/L			12/09/19 15:23	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1040		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-1

Date Collected: 11/25/19 10:09

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-16

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	470	b	20.0	2.67	mg/L			12/10/19 19:02	50
Fluoride	1.42		0.200	0.0601	mg/L			12/12/19 02:48	1
Sulfate	89.5		25.0	4.79	mg/L			12/10/19 19:02	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		20.0	20.0	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-2

Date Collected: 11/25/19 10:25

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-17

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	525	b	40.0	5.34	mg/L			12/10/19 19:22	100
Fluoride	1.17		0.200	0.0601	mg/L			12/12/19 10:35	1
Sulfate	210		50.0	9.57	mg/L			12/10/19 19:22	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1210		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-7

Date Collected: 11/25/19 10:41

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-18

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221	b	8.00	1.07	mg/L			12/10/19 19:43	20
Fluoride	1.67		0.200	0.0601	mg/L			12/13/19 08:56	1
Sulfate	134		10.0	1.91	mg/L			12/10/19 19:43	20

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	780		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-13

Date Collected: 11/25/19 10:56

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-19

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	913	b	40.0	5.34	mg/L			12/10/19 20:03	100
Fluoride	0.888		0.200	0.0601	mg/L			12/13/19 09:07	1
Sulfate	199		50.0	9.57	mg/L			12/10/19 20:03	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2560		40.0	40.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-30

Date Collected: 11/25/19 11:50

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-20

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10600	b	200	26.7	mg/L			12/10/19 21:04	500
Fluoride	17.4		1.00	0.301	mg/L			12/11/19 11:40	5
Sulfate	657		250	47.9	mg/L			12/10/19 21:04	500

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	16900		200	200	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-14

Date Collected: 11/25/19 12:29

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-21

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13400	b	400	53.4	mg/L			12/10/19 21:25	1000
Fluoride	25.1		1.00	0.301	mg/L			12/11/19 11:51	5
Sulfate	1460		500	95.7	mg/L			12/10/19 21:25	1000

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	28000		500	500	mg/L			12/02/19 14:19	1

Client Sample ID: MW-19

Date Collected: 11/25/19 12:36

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-22

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3510	b	200	26.7	mg/L			12/10/19 21:45	500
Fluoride	2.95		1.00	0.301	mg/L			12/11/19 12:23	5
Sulfate	740		250	47.9	mg/L			12/10/19 21:45	500

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8780		100	100	mg/L			12/02/19 14:19	1

Client Sample ID: DUP-1

Date Collected: 11/25/19 00:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-23

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9540	b	400	53.4	mg/L			12/12/19 06:59	1000
Fluoride	3.01	U	10.0	3.01	mg/L			12/17/19 07:21	50
Sulfate	627		500	95.7	mg/L			12/12/19 06:59	1000

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18700		200	200	mg/L			12/02/19 14:19	1

Client Sample ID: MW-21

Date Collected: 11/25/19 12:44

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-24

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204	b	20.0	2.67	mg/L			12/12/19 07:32	50
Fluoride	2.25		0.400	0.120	mg/L			12/17/19 07:32	2
Sulfate	213		25.0	4.79	mg/L			12/12/19 07:32	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1040		20.0	20.0	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-24

Date Collected: 11/25/19 12:50

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-25

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1710	b	80.0	10.7	mg/L			12/12/19 08:04	200
Fluoride	0.601	U	2.00	0.601	mg/L			12/17/19 08:04	10
Sulfate	242		100	19.1	mg/L			12/12/19 08:04	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5510		100	100	mg/L			12/02/19 14:19	1

Client Sample ID: MW-32

Date Collected: 11/25/19 13:06

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-26

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1440	b	80.0	10.7	mg/L			12/12/19 08:15	200
Fluoride	0.601	U	2.00	0.601	mg/L			12/17/19 08:15	10
Sulfate	191		100	19.1	mg/L			12/12/19 08:15	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4340		40.0	40.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-23

Date Collected: 11/25/19 13:40

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-27

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	341	b	20.0	2.67	mg/L			12/12/19 08:26	50
Fluoride	1.77		0.400	0.120	mg/L			12/17/19 08:26	2
Sulfate	69.8		25.0	4.79	mg/L			12/12/19 08:26	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1190		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-20

Date Collected: 11/25/19 13:46

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-28

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1120	b	40.0	5.34	mg/L			12/12/19 08:36	100
Fluoride	0.601	U	2.00	0.601	mg/L			12/17/19 08:37	10
Sulfate	82.6		50.0	9.57	mg/L			12/12/19 08:36	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3660		40.0	40.0	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-15

Date Collected: 11/25/19 13:54

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-29

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	603	b	40.0	5.34	mg/L			12/12/19 08:47	100
Fluoride	2.84		1.00	0.301	mg/L			12/17/19 09:09	5
Sulfate	72.7		50.0	9.57	mg/L			12/12/19 08:47	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1940		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-12

Date Collected: 11/25/19 14:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-30

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1950	b	80.0	10.7	mg/L			12/12/19 08:58	200
Fluoride	0.601	U	2.00	0.601	mg/L			12/17/19 09:20	10
Sulfate	82.2	J	100	19.1	mg/L			12/12/19 08:58	200

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6270		100	100	mg/L			12/02/19 14:19	1

Client Sample ID: MW-16

Date Collected: 11/25/19 14:10

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-31

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	344	b	40.0	5.34	mg/L			12/12/19 09:09	100
Fluoride	2.13		0.400	0.120	mg/L			12/17/19 09:31	2
Sulfate	98.3		50.0	9.57	mg/L			12/12/19 09:09	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1130		20.0	20.0	mg/L			12/02/19 14:19	1

Client Sample ID: MW-17

Date Collected: 11/25/19 14:19

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-32

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	405	b	40.0	5.34	mg/L			12/12/19 09:41	100
Fluoride	1.93		0.400	0.120	mg/L			12/17/19 09:42	2
Sulfate	106		50.0	9.57	mg/L			12/12/19 09:41	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1380		20.0	20.0	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-8

Date Collected: 11/25/19 14:39

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-33

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	350	b	40.0	5.34	mg/L			12/12/19 09:52	100
Fluoride	3.17		0.400	0.120	mg/L			12/17/19 09:52	2
Sulfate	168		50.0	9.57	mg/L			12/12/19 09:52	100

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1310		100	100	mg/L			12/02/19 12:59	1

Client Sample ID: WW-1

Date Collected: 11/26/19 10:33

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-34

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	259	b	20.0	2.67	mg/L			12/12/19 10:03	50
Fluoride	1.58		0.400	0.120	mg/L			12/17/19 10:25	2
Sulfate	142		25.0	4.79	mg/L			12/12/19 10:03	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1140		100	100	mg/L			12/02/19 12:59	1

Client Sample ID: DUP-2

Date Collected: 11/26/19 00:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-35

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	263	b	20.0	2.67	mg/L			12/12/19 10:13	50
Fluoride	1.61		0.400	0.120	mg/L			12/17/19 10:35	2
Sulfate	143		25.0	4.79	mg/L			12/12/19 10:13	50

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1050		100	100	mg/L			12/02/19 12:59	1

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
b	The compound was found in the blank and sample
E	Result is greater than the UQL and the concentration is an estimated value.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Analyte was not detected at or above the SDL.

Glossary

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

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-282115/37

Matrix: Water

Analysis Batch: 282115

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3160	J	0.400	0.0534	mg/L			12/05/19 12:47	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/05/19 12:47	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/05/19 12:47	1

Lab Sample ID: LCS 600-282115/38

Matrix: Water

Analysis Batch: 282115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.64		mg/L		98	90 - 110
Fluoride	7.50	7.751		mg/L		103	90 - 110
Sulfate	20.0	19.14		mg/L		96	90 - 110

Lab Sample ID: 600-196673-2 MS

Matrix: Water

Analysis Batch: 282115

Client Sample ID: MW-31

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	543	b	1000	1514		mg/L		97	80 - 120
Sulfate	139		1000	1060		mg/L		92	80 - 120

Lab Sample ID: 600-196673-2 MSD

Matrix: Water

Analysis Batch: 282115

Client Sample ID: MW-31

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	543	b	1000	1519		mg/L		98	80 - 120	0	20
Sulfate	139		1000	1063		mg/L		92	80 - 120	0	20

Lab Sample ID: MB 600-282259/37

Matrix: Water

Analysis Batch: 282259

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3035	J	0.400	0.0534	mg/L			12/06/19 12:25	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/06/19 12:25	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/06/19 12:25	1

Lab Sample ID: MB 600-282259/6

Matrix: Water

Analysis Batch: 282259

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3184	J	0.400	0.0534	mg/L			12/06/19 04:59	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/06/19 04:59	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/06/19 04:59	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 600-282259/38

Matrix: Water

Analysis Batch: 282259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.70		mg/L		98	90 - 110
Fluoride	7.50	8.063		mg/L		108	90 - 110
Sulfate	20.0	19.46		mg/L		97	90 - 110

Lab Sample ID: LCS 600-282259/7

Matrix: Water

Analysis Batch: 282259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.63		mg/L		98	90 - 110
Fluoride	7.50	7.347		mg/L		98	90 - 110
Sulfate	20.0	18.98		mg/L		95	90 - 110

Lab Sample ID: 600-196673-1 MS

Matrix: Water

Analysis Batch: 282259

Client Sample ID: MW-25

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.77		10.0	9.882		mg/L		81	80 - 120

Lab Sample ID: 600-196673-1 MSD

Matrix: Water

Analysis Batch: 282259

Client Sample ID: MW-25

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.77		10.0	10.11		mg/L		83	80 - 120	2	20

Lab Sample ID: 600-196673-11 MS

Matrix: Water

Analysis Batch: 282259

Client Sample ID: MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	487	b	1000	1453		mg/L		97	80 - 120
Sulfate	186		1000	1117		mg/L		93	80 - 120

Lab Sample ID: 600-196673-11 MSD

Matrix: Water

Analysis Batch: 282259

Client Sample ID: MW-6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	487	b	1000	1475		mg/L		99	80 - 120	2	20
Sulfate	186		1000	1139		mg/L		95	80 - 120	2	20

Lab Sample ID: MB 600-282368/35

Matrix: Water

Analysis Batch: 282368

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3145	J	0.400	0.0534	mg/L			12/09/19 13:13	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/09/19 13:13	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 600-282368/35

Matrix: Water

Analysis Batch: 282368

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.2333	J	0.500	0.0957	mg/L			12/09/19 13:13	1

Lab Sample ID: MB 600-282368/6

Matrix: Water

Analysis Batch: 282368

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3134	J	0.400	0.0534	mg/L			12/09/19 02:21	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/09/19 02:21	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/09/19 02:21	1

Lab Sample ID: LCS 600-282368/36

Matrix: Water

Analysis Batch: 282368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	18.67		mg/L		93	90 - 110
Fluoride	7.50	7.979		mg/L		106	90 - 110
Sulfate	20.0	18.49		mg/L		92	90 - 110

Lab Sample ID: LCS 600-282368/7

Matrix: Water

Analysis Batch: 282368

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.79		mg/L		99	90 - 110
Fluoride	7.50	7.278		mg/L		97	90 - 110
Sulfate	20.0	19.33		mg/L		97	90 - 110

Lab Sample ID: 600-196673-9 MS

Matrix: Water

Analysis Batch: 282368

Client Sample ID: MW-29

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.58		2.00	6.049	N1	mg/L		24	80 - 120

Lab Sample ID: 600-196673-9 MSD

Matrix: Water

Analysis Batch: 282368

Client Sample ID: MW-29

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	5.58		2.00	6.142	N1	mg/L		28	80 - 120	2	20

Lab Sample ID: MB 600-282587/4

Matrix: Water

Analysis Batch: 282587

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.1827	J	0.400	0.0534	mg/L			12/10/19 14:37	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/10/19 14:37	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 600-282587/4

Matrix: Water

Analysis Batch: 282587

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/10/19 14:37	1

Lab Sample ID: LCS 600-282587/5

Matrix: Water

Analysis Batch: 282587

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.38		mg/L		102	90 - 110
Fluoride	7.50	7.564		mg/L		101	90 - 110
Sulfate	20.0	20.13		mg/L		101	90 - 110

Lab Sample ID: 600-196673-19 MS

Matrix: Water

Analysis Batch: 282587

Client Sample ID: MW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	913	b	1000	1996		mg/L		108	80 - 120
Fluoride	6.01	U	200	196.1		mg/L		98	80 - 120
Sulfate	199		1000	1100		mg/L		90	80 - 120

Lab Sample ID: 600-196673-19 MSD

Matrix: Water

Analysis Batch: 282587

Client Sample ID: MW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	913	b	1000	2025		mg/L		111	80 - 120	1	20
Fluoride	6.01	U	200	200.8		mg/L		100	80 - 120	2	20
Sulfate	199		1000	1118		mg/L		92	80 - 120	2	20

Lab Sample ID: MB 600-282589/6

Matrix: Water

Analysis Batch: 282589

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3038	J	0.400	0.0534	mg/L			12/10/19 05:03	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/10/19 05:03	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/10/19 05:03	1

Lab Sample ID: LCS 600-282589/7

Matrix: Water

Analysis Batch: 282589

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	18.96		mg/L		95	90 - 110
Fluoride	7.50	7.814		mg/L		104	90 - 110
Sulfate	20.0	18.89		mg/L		94	90 - 110

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 600-282642/37

Matrix: Water

Analysis Batch: 282642

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.0601	U	0.200	0.0601	mg/L	-		12/11/19 12:01	1

Lab Sample ID: MB 600-282642/6

Matrix: Water

Analysis Batch: 282642

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3077	J	0.400	0.0534	mg/L	-		12/11/19 04:35	1
Fluoride	0.0601	U	0.200	0.0601	mg/L	-		12/11/19 04:35	1
Sulfate	0.0957	U	0.500	0.0957	mg/L	-		12/11/19 04:35	1

Lab Sample ID: LCS 600-282642/38

Matrix: Water

Analysis Batch: 282642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	7.50	7.948		mg/L	-	106	90 - 110

Lab Sample ID: LCS 600-282642/7

Matrix: Water

Analysis Batch: 282642

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.14		mg/L	-	96	90 - 110
Fluoride	7.50	7.525		mg/L	-	100	90 - 110
Sulfate	20.0	19.03		mg/L	-	95	90 - 110

Lab Sample ID: MB 600-282645/35

Matrix: Water

Analysis Batch: 282645

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.1779	J	0.400	0.0534	mg/L	-		12/12/19 00:25	1
Fluoride	0.0601	U	0.200	0.0601	mg/L	-		12/12/19 00:25	1
Sulfate	0.0957	U	0.500	0.0957	mg/L	-		12/12/19 00:25	1

Lab Sample ID: LCS 600-282645/36

Matrix: Water

Analysis Batch: 282645

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.22		mg/L	-	101	90 - 110
Fluoride	7.50	7.586		mg/L	-	101	90 - 110
Sulfate	20.0	20.07		mg/L	-	100	90 - 110

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 600-196673-16 MS

Matrix: Water

Analysis Batch: 282645

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	441	E b	10.0	402.6	E 4	mg/L		-384	80 - 120
Fluoride	1.42		2.00	3.186		mg/L		89	80 - 120
Sulfate	71.7	E	10.0	75.36	E 4	mg/L		36	80 - 120

Lab Sample ID: 600-196673-16 MSD

Matrix: Water

Analysis Batch: 282645

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	441	E b	10.0	402.3	E 4	mg/L		-387	80 - 120	0	20
Fluoride	1.42		2.00	3.185		mg/L		88	80 - 120	0	20
Sulfate	71.7	E	10.0	75.07	E 4	mg/L		34	80 - 120	0	20

Lab Sample ID: MB 600-282782/6

Matrix: Water

Analysis Batch: 282782

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3039	J	0.400	0.0534	mg/L			12/12/19 05:23	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/12/19 05:23	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/12/19 05:23	1

Lab Sample ID: LCS 600-282782/7

Matrix: Water

Analysis Batch: 282782

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.30		mg/L		96	90 - 110
Fluoride	7.50	7.629		mg/L		102	90 - 110
Sulfate	20.0	19.04		mg/L		95	90 - 110

Lab Sample ID: 600-196673-24 MS

Matrix: Water

Analysis Batch: 282782

Client Sample ID: MW-21

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	204	b	500	676.2		mg/L		94	80 - 120
Fluoride	3.01	U	100	116.7		mg/L		117	80 - 120
Sulfate	213		500	685.7		mg/L		94	80 - 120

Lab Sample ID: 600-196673-24 MSD

Matrix: Water

Analysis Batch: 282782

Client Sample ID: MW-21

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	204	b	500	687.1		mg/L		97	80 - 120	2	20
Fluoride	3.01	U	100	120.8	N1	mg/L		121	80 - 120	4	20
Sulfate	213		500	693.4		mg/L		96	80 - 120	1	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 600-282960/6

Matrix: Water

Analysis Batch: 282960

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3108	J	0.400	0.0534	mg/L			12/13/19 03:26	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/13/19 03:26	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/13/19 03:26	1

Lab Sample ID: LCS 600-282960/7

Matrix: Water

Analysis Batch: 282960

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.44		mg/L		97	90 - 110
Fluoride	7.50	7.318		mg/L		98	90 - 110
Sulfate	20.0	20.74		mg/L		104	90 - 110

Lab Sample ID: MB 600-283213/6

Matrix: Water

Analysis Batch: 283213

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.3135	J	0.400	0.0534	mg/L			12/17/19 05:06	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/17/19 05:06	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/17/19 05:06	1

Lab Sample ID: LCS 600-283213/7

Matrix: Water

Analysis Batch: 283213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.35		mg/L		97	90 - 110
Fluoride	7.50	7.271		mg/L		97	90 - 110
Sulfate	20.0	19.05		mg/L		95	90 - 110

Lab Sample ID: 600-196673-24 MS

Matrix: Water

Analysis Batch: 283213

Client Sample ID: MW-21

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.25		4.00	5.702		mg/L		86	80 - 120

Lab Sample ID: 600-196673-24 MSD

Matrix: Water

Analysis Batch: 283213

Client Sample ID: MW-21

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Fluoride	2.25		4.00	5.722		mg/L		87	80 - 120	0	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 600-196673-33 MS

Matrix: Water

Analysis Batch: 283213

Client Sample ID: MW-8

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	3.17		4.00	6.861		mg/L		92	80 - 120

Lab Sample ID: 600-196673-33 MSD

Matrix: Water

Analysis Batch: 283213

Client Sample ID: MW-8

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	3.17		4.00	6.890		mg/L		93	80 - 120	0	20

Lab Sample ID: MB 600-283465/4

Matrix: Water

Analysis Batch: 283465

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.1912	J	0.400	0.0534	mg/L			12/19/19 11:15	1
Fluoride	0.0601	U	0.200	0.0601	mg/L			12/19/19 11:15	1
Sulfate	0.0957	U	0.500	0.0957	mg/L			12/19/19 11:15	1

Lab Sample ID: LCS 600-283465/5

Matrix: Water

Analysis Batch: 283465

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.51		mg/L		103	90 - 110
Fluoride	7.50	7.535		mg/L		100	90 - 110
Sulfate	20.0	19.69		mg/L		98	90 - 110

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

Lab Sample ID: MB 600-281803/1

Matrix: Water

Analysis Batch: 281803

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50.0	U	50.0	50.0	mg/L			12/02/19 12:59	1

Lab Sample ID: LCS 600-281803/2

Matrix: Water

Analysis Batch: 281803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1836		mg/L		102	90 - 110

Lab Sample ID: MB 600-281816/1

Matrix: Water

Analysis Batch: 281816

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L			12/02/19 14:19	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

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

Lab Sample ID: LCS 600-281816/2

Matrix: Water

Analysis Batch: 281816

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1733		mg/L	-	96	90 - 110

Lab Sample ID: 600-196673-13 DU

Matrix: Water

Analysis Batch: 281816

Client Sample ID: MW-26

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1840		1900		mg/L	-	3	10

Lab Sample ID: 600-196673-24 DU

Matrix: Water

Analysis Batch: 281816

Client Sample ID: MW-21

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1040		1060		mg/L	-	2	10

Lab Sample ID: MB 600-281865/1

Matrix: Water

Analysis Batch: 281865

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L	-		12/02/19 22:01	1

Lab Sample ID: LCS 600-281865/2

Matrix: Water

Analysis Batch: 281865

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1782		mg/L	-	99	90 - 110

Lab Sample ID: 600-196673-8 DU

Matrix: Water

Analysis Batch: 281865

Client Sample ID: MW-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	7510		7156		mg/L	-	5	10

Lab Sample ID: MB 600-281950/1

Matrix: Water

Analysis Batch: 281950

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10.0	U	10.0	10.0	mg/L	-		12/03/19 13:50	1

Lab Sample ID: LCS 600-281950/2

Matrix: Water

Analysis Batch: 281950

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1746		mg/L	-	97	90 - 110

Eurofins TestAmerica, Houston

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

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

Lab Sample ID: 600-196673-4 DU
Matrix: Water
Analysis Batch: 281950

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1120	H	1094		mg/L		2	10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Method: 300.0 - Anions, Ion Chromatography

Analyte	MQL	MDL	Units
Chloride	0.400	0.0534	mg/L
Fluoride	0.200	0.0601	mg/L
Sulfate	0.500	0.0957	mg/L

General Chemistry

Analyte	MQL	MDL	Units
Total Dissolved Solids	10.0	10.0	mg/L

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

HPLC/IC

Analysis Batch: 282115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-1	MW-25	Total/NA	Water	300.0	
600-196673-2	MW-31	Total/NA	Water	300.0	
600-196673-3	MW-11	Total/NA	Water	300.0	
600-196673-4	MW-5	Total/NA	Water	300.0	
600-196673-5	Southwest-MW	Total/NA	Water	300.0	
MB 600-282115/37	Method Blank	Total/NA	Water	300.0	
LCS 600-282115/38	Lab Control Sample	Total/NA	Water	300.0	
600-196673-2 MS	MW-31	Total/NA	Water	300.0	
600-196673-2 MSD	MW-31	Total/NA	Water	300.0	

Analysis Batch: 282259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-1	MW-25	Total/NA	Water	300.0	
600-196673-2	MW-31	Total/NA	Water	300.0	
600-196673-3	MW-11	Total/NA	Water	300.0	
600-196673-4	MW-5	Total/NA	Water	300.0	
600-196673-5	Southwest-MW	Total/NA	Water	300.0	
600-196673-6	West-MW	Total/NA	Water	300.0	
600-196673-7	MW-4	Total/NA	Water	300.0	
600-196673-8	MW-10	Total/NA	Water	300.0	
600-196673-9	MW-29	Total/NA	Water	300.0	
600-196673-10	MW-3	Total/NA	Water	300.0	
600-196673-11	MW-6	Total/NA	Water	300.0	
600-196673-12	MW-28	Total/NA	Water	300.0	
600-196673-13	MW-26	Total/NA	Water	300.0	
600-196673-14	MW-22	Total/NA	Water	300.0	
MB 600-282259/37	Method Blank	Total/NA	Water	300.0	
MB 600-282259/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282259/38	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-282259/7	Lab Control Sample	Total/NA	Water	300.0	
600-196673-1 MS	MW-25	Total/NA	Water	300.0	
600-196673-1 MSD	MW-25	Total/NA	Water	300.0	
600-196673-11 MS	MW-6	Total/NA	Water	300.0	
600-196673-11 MSD	MW-6	Total/NA	Water	300.0	

Analysis Batch: 282368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-6	West-MW	Total/NA	Water	300.0	
600-196673-7	MW-4	Total/NA	Water	300.0	
600-196673-8	MW-10	Total/NA	Water	300.0	
600-196673-9	MW-29	Total/NA	Water	300.0	
600-196673-10	MW-3	Total/NA	Water	300.0	
600-196673-11	MW-6	Total/NA	Water	300.0	
600-196673-12	MW-28	Total/NA	Water	300.0	
600-196673-13	MW-26	Total/NA	Water	300.0	
600-196673-14	MW-22	Total/NA	Water	300.0	
600-196673-15	MW-9	Total/NA	Water	300.0	
MB 600-282368/35	Method Blank	Total/NA	Water	300.0	
MB 600-282368/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282368/36	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-282368/7	Lab Control Sample	Total/NA	Water	300.0	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

HPLC/IC (Continued)

Analysis Batch: 282368 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-9 MS	MW-29	Total/NA	Water	300.0	
600-196673-9 MSD	MW-29	Total/NA	Water	300.0	

Analysis Batch: 282587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-16	MW-1	Total/NA	Water	300.0	
600-196673-17	MW-2	Total/NA	Water	300.0	
600-196673-18	MW-7	Total/NA	Water	300.0	
600-196673-19	MW-13	Total/NA	Water	300.0	
600-196673-20	MW-30	Total/NA	Water	300.0	
600-196673-21	MW-14	Total/NA	Water	300.0	
600-196673-22	MW-19	Total/NA	Water	300.0	
MB 600-282587/4	Method Blank	Total/NA	Water	300.0	
LCS 600-282587/5	Lab Control Sample	Total/NA	Water	300.0	
600-196673-19 MS	MW-13	Total/NA	Water	300.0	
600-196673-19 MSD	MW-13	Total/NA	Water	300.0	

Analysis Batch: 282589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-15	MW-9	Total/NA	Water	300.0	
MB 600-282589/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282589/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 282642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-20	MW-30	Total/NA	Water	300.0	
600-196673-21	MW-14	Total/NA	Water	300.0	
600-196673-22	MW-19	Total/NA	Water	300.0	
MB 600-282642/37	Method Blank	Total/NA	Water	300.0	
MB 600-282642/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282642/38	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-282642/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 282645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-16	MW-1	Total/NA	Water	300.0	
MB 600-282645/35	Method Blank	Total/NA	Water	300.0	
LCS 600-282645/36	Lab Control Sample	Total/NA	Water	300.0	
600-196673-16 MS	MW-1	Total/NA	Water	300.0	
600-196673-16 MSD	MW-1	Total/NA	Water	300.0	

Analysis Batch: 282782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-17	MW-2	Total/NA	Water	300.0	
600-196673-23	DUP-1	Total/NA	Water	300.0	
600-196673-24	MW-21	Total/NA	Water	300.0	
600-196673-25	MW-24	Total/NA	Water	300.0	
600-196673-26	MW-32	Total/NA	Water	300.0	
600-196673-27	MW-23	Total/NA	Water	300.0	
600-196673-28	MW-20	Total/NA	Water	300.0	
600-196673-29	MW-15	Total/NA	Water	300.0	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

HPLC/IC (Continued)

Analysis Batch: 282782 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-30	MW-12	Total/NA	Water	300.0	
600-196673-31	MW-16	Total/NA	Water	300.0	
600-196673-32	MW-17	Total/NA	Water	300.0	
600-196673-33	MW-8	Total/NA	Water	300.0	
600-196673-34	WW-1	Total/NA	Water	300.0	
600-196673-35	DUP-2	Total/NA	Water	300.0	
MB 600-282782/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282782/7	Lab Control Sample	Total/NA	Water	300.0	
600-196673-24 MS	MW-21	Total/NA	Water	300.0	
600-196673-24 MSD	MW-21	Total/NA	Water	300.0	

Analysis Batch: 282960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-18	MW-7	Total/NA	Water	300.0	
600-196673-19	MW-13	Total/NA	Water	300.0	
MB 600-282960/6	Method Blank	Total/NA	Water	300.0	
LCS 600-282960/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 283213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-23	DUP-1	Total/NA	Water	300.0	
600-196673-24	MW-21	Total/NA	Water	300.0	
600-196673-25	MW-24	Total/NA	Water	300.0	
600-196673-26	MW-32	Total/NA	Water	300.0	
600-196673-27	MW-23	Total/NA	Water	300.0	
600-196673-28	MW-20	Total/NA	Water	300.0	
600-196673-29	MW-15	Total/NA	Water	300.0	
600-196673-30	MW-12	Total/NA	Water	300.0	
600-196673-31	MW-16	Total/NA	Water	300.0	
600-196673-32	MW-17	Total/NA	Water	300.0	
600-196673-33	MW-8	Total/NA	Water	300.0	
600-196673-34	WW-1	Total/NA	Water	300.0	
600-196673-35	DUP-2	Total/NA	Water	300.0	
MB 600-283213/6	Method Blank	Total/NA	Water	300.0	
LCS 600-283213/7	Lab Control Sample	Total/NA	Water	300.0	
600-196673-24 MS	MW-21	Total/NA	Water	300.0	
600-196673-24 MSD	MW-21	Total/NA	Water	300.0	
600-196673-33 MS	MW-8	Total/NA	Water	300.0	
600-196673-33 MSD	MW-8	Total/NA	Water	300.0	

Analysis Batch: 283465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-3	MW-11	Total/NA	Water	300.0	
MB 600-283465/4	Method Blank	Total/NA	Water	300.0	
LCS 600-283465/5	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 281803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-33	MW-8	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

General Chemistry (Continued)

Analysis Batch: 281803 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-34	WW-1	Total/NA	Water	SM 2540C	
600-196673-35	DUP-2	Total/NA	Water	SM 2540C	
MB 600-281803/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-281803/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 281816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-13	MW-26	Total/NA	Water	SM 2540C	
600-196673-14	MW-22	Total/NA	Water	SM 2540C	
600-196673-15	MW-9	Total/NA	Water	SM 2540C	
600-196673-16	MW-1	Total/NA	Water	SM 2540C	
600-196673-17	MW-2	Total/NA	Water	SM 2540C	
600-196673-18	MW-7	Total/NA	Water	SM 2540C	
600-196673-19	MW-13	Total/NA	Water	SM 2540C	
600-196673-20	MW-30	Total/NA	Water	SM 2540C	
600-196673-21	MW-14	Total/NA	Water	SM 2540C	
600-196673-22	MW-19	Total/NA	Water	SM 2540C	
600-196673-23	DUP-1	Total/NA	Water	SM 2540C	
600-196673-24	MW-21	Total/NA	Water	SM 2540C	
600-196673-25	MW-24	Total/NA	Water	SM 2540C	
600-196673-26	MW-32	Total/NA	Water	SM 2540C	
600-196673-27	MW-23	Total/NA	Water	SM 2540C	
600-196673-28	MW-20	Total/NA	Water	SM 2540C	
600-196673-29	MW-15	Total/NA	Water	SM 2540C	
600-196673-30	MW-12	Total/NA	Water	SM 2540C	
600-196673-31	MW-16	Total/NA	Water	SM 2540C	
600-196673-32	MW-17	Total/NA	Water	SM 2540C	
MB 600-281816/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-281816/2	Lab Control Sample	Total/NA	Water	SM 2540C	
600-196673-13 DU	MW-26	Total/NA	Water	SM 2540C	
600-196673-24 DU	MW-21	Total/NA	Water	SM 2540C	

Analysis Batch: 281865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-8	MW-10	Total/NA	Water	SM 2540C	
600-196673-9	MW-29	Total/NA	Water	SM 2540C	
600-196673-10	MW-3	Total/NA	Water	SM 2540C	
600-196673-11	MW-6	Total/NA	Water	SM 2540C	
600-196673-12	MW-28	Total/NA	Water	SM 2540C	
MB 600-281865/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-281865/2	Lab Control Sample	Total/NA	Water	SM 2540C	
600-196673-8 DU	MW-10	Total/NA	Water	SM 2540C	

Analysis Batch: 281950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-1	MW-25	Total/NA	Water	SM 2540C	
600-196673-2	MW-31	Total/NA	Water	SM 2540C	
600-196673-3	MW-11	Total/NA	Water	SM 2540C	
600-196673-4	MW-5	Total/NA	Water	SM 2540C	
600-196673-5	Southwest-MW	Total/NA	Water	SM 2540C	
600-196673-6	West-MW	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

General Chemistry (Continued)

Analysis Batch: 281950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-196673-7	MW-4	Total/NA	Water	SM 2540C	
MB 600-281950/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 600-281950/2	Lab Control Sample	Total/NA	Water	SM 2540C	
600-196673-4 DU	MW-5	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-25

Date Collected: 11/24/19 13:08

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		250	5 mL	1.0 mL	282115	12/05/19 13:09	W1N	TAL HOU
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	282259	12/06/19 09:50	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: MW-31

Date Collected: 11/24/19 13:21

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	282115	12/05/19 13:41	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282259	12/06/19 10:23	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: MW-11

Date Collected: 11/24/19 14:49

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			283465	12/19/19 16:15	KP1	TAL HOU
Total/NA	Analysis	300.0		250			282115	12/05/19 14:13	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282259	12/06/19 10:55	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: MW-5

Date Collected: 11/24/19 14:55

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282115	12/05/19 14:24	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282259	12/06/19 11:06	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: Southwest-MW

Date Collected: 11/24/19 15:05

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282115	12/05/19 14:35	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282259	12/06/19 11:16	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

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Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: West-MW

Lab Sample ID: 600-196673-6

Date Collected: 11/24/19 15:08

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	282259	12/06/19 11:42	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282368	12/09/19 09:16	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: MW-4

Lab Sample ID: 600-196673-7

Date Collected: 11/24/19 15:20

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		250			282259	12/06/19 11:53	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282368	12/09/19 09:27	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281950	12/03/19 13:50	TNL	TAL HOU

Client Sample ID: MW-10

Lab Sample ID: 600-196673-8

Date Collected: 11/25/19 09:01

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			282259	12/06/19 12:03	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282368	12/09/19 09:37	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281865	12/02/19 22:01	KRD	TAL HOU

Client Sample ID: MW-29

Lab Sample ID: 600-196673-9

Date Collected: 11/25/19 09:11

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		250			282259	12/06/19 12:14	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282368	12/09/19 10:10	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281865	12/02/19 22:01	KRD	TAL HOU

Client Sample ID: MW-3

Lab Sample ID: 600-196673-10

Date Collected: 11/25/19 09:19

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282259	12/06/19 12:47	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282368	12/09/19 10:42	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281865	12/02/19 22:01	KRD	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-6

Date Collected: 11/25/19 09:23

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282259	12/06/19 13:19	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282368	12/09/19 10:53	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281865	12/02/19 22:01	KRD	TAL HOU

Client Sample ID: MW-28

Date Collected: 11/25/19 09:33

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			282259	12/06/19 13:51	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282368	12/09/19 11:04	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281865	12/02/19 22:01	KRD	TAL HOU

Client Sample ID: MW-26

Date Collected: 11/25/19 09:40

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282259	12/06/19 14:02	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282368	12/09/19 11:14	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-22

Date Collected: 11/25/19 09:46

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			282259	12/06/19 14:13	W1N	TAL HOU
Total/NA	Analysis	300.0		5			282368	12/09/19 11:25	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-9

Date Collected: 11/25/19 09:52

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282368	12/09/19 15:23	W1N	TAL HOU
Total/NA	Analysis	300.0		1			282589	12/10/19 12:07	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-1

Lab Sample ID: 600-196673-16

Date Collected: 11/25/19 10:09

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282587	12/10/19 19:02	SKR	TAL HOU
Total/NA	Analysis	300.0		1			282645	12/12/19 02:48	KP1	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-2

Lab Sample ID: 600-196673-17

Date Collected: 11/25/19 10:25

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282587	12/10/19 19:22	SKR	TAL HOU
Total/NA	Analysis	300.0		1			282782	12/12/19 10:35	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-7

Lab Sample ID: 600-196673-18

Date Collected: 11/25/19 10:41

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			282587	12/10/19 19:43	SKR	TAL HOU
Total/NA	Analysis	300.0		1			282960	12/13/19 08:56	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-13

Lab Sample ID: 600-196673-19

Date Collected: 11/25/19 10:56

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282587	12/10/19 20:03	SKR	TAL HOU
Total/NA	Analysis	300.0		1			282960	12/13/19 09:07	SKR	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-30

Lab Sample ID: 600-196673-20

Date Collected: 11/25/19 11:50

Matrix: Water

Date Received: 11/27/19 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			282587	12/10/19 21:04	SKR	TAL HOU
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	282642	12/11/19 11:40	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-14

Date Collected: 11/25/19 12:29

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1000			282587	12/10/19 21:25	SKR	TAL HOU
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	282642	12/11/19 11:51	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	2 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-19

Date Collected: 11/25/19 12:36

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		500			282587	12/10/19 21:45	SKR	TAL HOU
Total/NA	Analysis	300.0		5	5 mL	1.0 mL	282642	12/11/19 12:23	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: DUP-1

Date Collected: 11/25/19 00:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1000			282782	12/12/19 06:59	W1N	TAL HOU
Total/NA	Analysis	300.0		50			283213	12/17/19 07:21	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-21

Date Collected: 11/25/19 12:44

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282782	12/12/19 07:32	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 07:32	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-24

Date Collected: 11/25/19 12:50

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			282782	12/12/19 08:04	W1N	TAL HOU
Total/NA	Analysis	300.0		10			283213	12/17/19 08:04	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-32

Date Collected: 11/25/19 13:06

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			282782	12/12/19 08:15	W1N	TAL HOU
Total/NA	Analysis	300.0		10			283213	12/17/19 08:15	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-23

Date Collected: 11/25/19 13:40

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282782	12/12/19 08:26	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 08:26	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-20

Date Collected: 11/25/19 13:46

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282782	12/12/19 08:36	W1N	TAL HOU
Total/NA	Analysis	300.0		10			283213	12/17/19 08:37	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-15

Date Collected: 11/25/19 13:54

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-29

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282782	12/12/19 08:47	W1N	TAL HOU
Total/NA	Analysis	300.0		5			283213	12/17/19 09:09	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-12

Date Collected: 11/25/19 14:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200			282782	12/12/19 08:58	W1N	TAL HOU
Total/NA	Analysis	300.0		10			283213	12/17/19 09:20	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Client Sample ID: MW-16

Date Collected: 11/25/19 14:10

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-31

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282782	12/12/19 09:09	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 09:31	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-17

Date Collected: 11/25/19 14:19

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-32

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282782	12/12/19 09:41	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 09:42	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	281816	12/02/19 14:19	DTN	TAL HOU

Client Sample ID: MW-8

Date Collected: 11/25/19 14:39

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-33

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			282782	12/12/19 09:52	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 09:52	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	500 mL	281803	12/02/19 12:59	DTN	TAL HOU

Client Sample ID: WW-1

Date Collected: 11/26/19 10:33

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-34

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282782	12/12/19 10:03	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 10:25	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	500 mL	281803	12/02/19 12:59	DTN	TAL HOU

Client Sample ID: DUP-2

Date Collected: 11/26/19 00:00

Date Received: 11/27/19 10:15

Lab Sample ID: 600-196673-35

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		50			282782	12/12/19 10:13	W1N	TAL HOU
Total/NA	Analysis	300.0		2			283213	12/17/19 10:35	W1N	TAL HOU
Total/NA	Analysis	SM 2540C		1	50 mL	500 mL	281803	12/02/19 12:59	DTN	TAL HOU

Laboratory References:

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

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: GL Erwin

Job ID: 600-196673-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0759	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State	2019-073	08-31-20
Texas	NELAP	T104704223-19-25	10-31-19 *
Texas	NELAP	T104704223-19-25	10-31-20
USDA	US Federal Programs	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Houston

Chain of Custody Record

Client Information Client Contact: Mr. Russell Grant Phone: 361-701-0369 Email: russell.grant@arcadis-us.com		Analysis Requested Due Date Requested: 11/24/19 TAT Requested (days): 1308 Project #: 60003622 SOW#:		Carrier Tracking No(s): 600-72354-19858.3 Page: Page 3 of 3 Job #:	
Address: 1004 North Big Spring Suite 121 City: Midland State: TX 79701 Phone: 916-786-5382(Tel) Email: russell.grant@arcadis-us.com Project Name: G L Erwin Site:		Lab PM: Kuchadkar, Sachin G E-Mail: sachin.kuchadkar@testamericainc.com		COC No: 600-72354-19858.3 Page: Page 3 of 3 Job #:	
Sample Identification		Sample Information		Preservation Codes:	
Sample ID	Sample Date	Sample Time	Sample Type (G=grab)	Matrix (Water, Soil, Other)	Preservation Code
MW-25	11/24/19	1308	G	Water	300-Cl, F, SO4
MW-31	11/24/19	1321	G	Water	2540C-Calc TDS
MW-11	11/24/19	1449	G	Water	
MW-5	11/24/19	1455	G	Water	
Southwest-MW	11/24/19	1505	G	Water	
West-MW	11/24/19	1508	G	Water	
MW-4	11/24/19	1520	G	Water	
MW-10	11/25/19	0901	G	Water	
MW-29	11/25/19	0911	G	Water	
MW-3	11/25/19	0919	G	Water	
MW-6	11/25/19	0923	G	Water	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/Note:	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		Total Number of Containers: 1	
Empty Kit Relinquished by:		Date: 11/26/19 / 1800		Date/Time: 11/27/19 1015	
Relinquished by: C. L. Martin		Date/Time: 11/26/19 / 1800		Date/Time: 11/27/19 1015	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Eurofins TestAmerica, Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



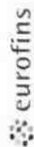
Environment Testing
TestAmerica

Client Information		Lab PM:		Carrier Tracking Note(s)		COC No:				
Client Contact: Mr. Russell Grant		Kudchadkar, Sachin G				600-72354-19858.3				
Company: ARCADIS U.S., Inc.		E-Mail: sachin.kudchadkar@testamericainc.com				Page 3 of 3				
Address: 1004 North Big Spring Suite 121		Due Date Requested:		Analysis Requested		Job #				
City: Midland		TAT Requested (days):				Preservation Codes:				
State, Zip: TX, 79701		PO #: 30006547 GL Erwin				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Anchlor I - Ice J - DI Water K - EDTA L - EDA Other:				
Phone: 916-786-5382(Tel)		WO #:				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)				
Email: russell.grant@arcadis-us.com		Project #: 60003622								
Project Name: GL Erwin		SSOW#:								
Site:										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C, Calcd TDS	300-Cl, F, SO4	Total Number of Containers	Special Instructions/Note:
MW-28	11/25/19	0937	G	Water	X	X	X	X	1	
MW-26	11/25/19	0940	G	Water	X	X	X	X	1	
MW-22	11/25/19	0946	G	Water	X	X	X	X	1	
MW-9	11/25/19	0952	G	Water	X	X	X	X	1	
MW-1	11/25/19	1009	G	Water	X	X	X	X	1	
MW-2	11/25/19	1025	G	Water	X	X	X	X	1	
MW-7	11/25/19	1041	G	Water	X	X	X	X	1	
MW-13	11/25/19	1056	G	Water	X	X	X	X	1	
MW-30	11/25/19	1150	G	Water	X	X	X	X	1	
MW-14	11/25/19	1229	G	Water	X	X	X	X	1	
MW-19	11/25/19	1236	G	Water	X	X	X	X	1	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements:										
Empty Kit Relinquished by:										
Relinquished by: <i>Carly Martin</i> Date/Time: 11/26/19 / 1800										
Relinquished by: <i>Carly Martin</i> Date/Time: 11/27/19 1015										
Relinquished by: <i>Carly Martin</i> Date/Time: 11/27/19 1015										
Custody Seal No.: <i>TA#</i>										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No										
Cooler Temperature(s) °C and Other Remarks:										

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record



Environment Testing
TestAmerica

Client Information		Lab PM		Carrier Tracking Note(s)		COC No.				
Mr. Russell Grant		Kudchadkar, Sachin G				600-72354-19858.3				
Company: ARCADIS U.S., Inc.		E-Mail: sachin.kudchadkar@testamericainc.com		Page 3 of 3		Job #:				
Address: 1004 North Big Spring Suite 121		Due Date Requested:		Analysis Requested		Preservation Codes:				
City: Midland		TAT Requested (days):				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:				
State, Zip: TX, 79701		PO # 30006547 GL Erwin				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)				
Phone: 916-786-5382(Tel)		WO #								
Email: russell.grant@arcadis-us.com		Project # 60003622								
Project Name: G L Erwin		SSOW#:								
Site:										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, D=water, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C, Calcd TDS	300-Cl, F, SO4	Total Number of Containers	Special Instructions/Note:
Dup-1	11/25/19	-	G	Water					1	
MW-21	11/25/19	1244	G	Water					1	
MW-24	11/25/19	1250	G	Water					1	
MW-32	11/25/19	1304	G	Water					1	
MW-23	11/25/19	1340	G	Water					1	
MW-20	11/25/19	1346	G	Water					1	
MW-15	11/25/19	1354	G	Water					1	
MW-12	11/25/19	1400	G	Water					1	
MW-16	11/25/19	1410	G	Water					1	
MW-17	11/25/19	1419	G	Water					1	
MW-8	11/25/19	1439	G	Water					1	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements:										
Empty Kit Relinquished by:										
Relinquished by: Carlos Martinez Date/Time: 11/26/19 1800 Company: ARCADIS										
Relinquished by: Date/Time: Company:										
Relinquished by: Date/Time: Company:										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:										

Ver: 01/16/2019

[illegible]

Loc: 600
196673Environment Testing
TestAmerica

Eurofins TestAmerica Houston

Sample Receipt Checklist

19 NOV 27 10:15

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: _____

UNPACKED BY: YR

CARRIER/DRIVER: _____

Custody Seal Present: ☒ YES ☐ NONumber of Coolers Received: 3

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
3604	Y / N	Y / N	0.3	676	+0.1	0.4
6188	Y / N	Y / N	0.6	676	+0.1	0.7
8482	Y / N	Y / N	1.0	676	+0.1	1.1
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are > pH 12: ☐ YES ☐ NOAcid preserved are < pH 2: ☐ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES

DATE & TIME PUT IN FREEZER: _____

pH paper Lot # _____

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

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

☒ YES ☐ NO

COMMENTS:

YR 11/29/19

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 600-196673-1

Login Number: 196673

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4,0.7,1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

APPENDIX E

Cumulative Summary of Groundwater Potentiometric Elevation Data



Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-01	3,161.69	2	55'-85'	2/4/98	87.70	64.15	3097.54
				2/7/01	---	61.40	3100.29
				4/30/02	---	61.43	3100.26
				10/11/02	---	61.43	3100.26
				12/26/02	---	61.43	3100.26
				2/17/03	---	61.42	3100.27
				5/29/03	---	61.58	3100.11
				8/22/03	---	61.37	3100.32
				11/5/03	---	61.35	3100.34
				2/3/04	---	61.34	3100.35
				5/5/04	---	61.13	3100.56
				8/2/04	---	61.08	3100.61
				11/23/04	---	60.61	3101.08
				2/9/05	---	60.46	3101.23
				8/4/05	---	60.62	3101.07
				2/22/06	---	60.30	3101.39
				8/24/06	---	60.46	3101.23
				2/27/07	---	60.12	3101.57
				8/23/07	---	59.88	3101.81
				2/18/08	---	59.95	3101.74
				8/11/08	---	59.99	3101.70
	2/16/09			---	60.44	3101.25	
	7/27/09			---	60.57	3101.12	
	2/22/10			---	60.73	3100.96	
	7/26/10			---	60.48	3101.21	
	2/15/11			---	60.42	3101.27	
	8/16/11			---	60.39	3101.30	
	2/20/12			---	60.52	3101.17	
	8/23/12			---	60.56	3101.13	
	2/18/13			---	60.51	3101.18	
	8/13/13			---	60.76	3100.93	
	4/2/14			---	60.52	3101.17	
	10/9/14			---	60.78	3100.91	
	06/23/15			---	60.49	3101.20	
	10/06/15			---	60.65	3101.04	
	06/22/16			---	60.47	3101.22	
	10/06/16			---	60.45	3101.24	
	05/22/17			---	60.52	3103.62	
	10/11/17			---	60.53	3103.61	
	05/08/18			---	60.41	3103.73	
	10/09/18			---	60.71	3103.43	
	6/11/19			87.70	61.54	3100.15	
	11/21/19			80.70	60.73	3100.96	
MW-02	3,159.89	2	50'-70'	2/4/98	72.94	61.33	3098.56
				2/7/01	---	61.45	3098.44
				4/30/02	---	61.47	3098.42
				10/11/02	---	61.46	3098.43
				12/26/02	---	61.52	3098.37
				2/17/03	---	61.53	3098.36
				5/29/03	---	61.48	3098.41
				8/22/03	---	61.41	3098.48
				11/5/03	---	61.38	3098.51
				2/3/04	---	61.35	3098.54
				5/5/04	---	61.20	3098.69
				8/2/04	---	61.11	3098.78
				11/23/04	---	60.52	3099.37
				2/9/05	---	60.45	3099.44
				8/4/05	---	66.60	3093.29
				2/22/06	---	60.26	3099.63
				8/24/06	---	60.42	3099.47
				2/27/07	---	60.04	3099.85
				8/23/07	---	59.80	3100.09
				2/18/08	---	59.83	3100.06
	8/11/08			---	59.89	3100.00	
	2/16/09			---	60.42	3099.47	
	7/27/09			---	60.55	3099.34	
	2/22/10			---	60.56	3099.33	
	7/26/10			---	60.73	3099.16	
	2/15/11			---	60.50	3099.39	
	8/16/11			---	60.43	3099.46	
	2/20/12			---	60.56	3099.33	
	8/23/12			---	60.85	3099.04	
	2/18/13			---	60.86	3099.03	
	8/13/13			---	60.85	3099.04	
	4/2/14			---	60.78	3099.11	
	10/9/14			---	60.82	3099.07	
	6/23/15			---	60.79	3099.10	
	10/6/15			---	60.78	3099.11	
	6/22/16			---	60.70	3099.19	
	10/6/16			---	60.64	3099.25	
	05/22/17			---	60.66	3101.67	
	10/11/17			---	60.55	3101.78	
	05/08/18			---	60.47	3101.86	
	10/08/18			---	60.78	3101.55	
	6/11/19			72.94	61.59	3100.74	
	11/21/19			71.68	60.74	3101.59	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-03	3,164.08	2	50'-70'	2/4/98	73.26	65.18	3098.90
				2/7/01	---	65.22	3098.86
				4/30/02	---	65.11	3098.97
				10/11/02	---	65.14	3098.94
				12/26/02	---	65.15	3098.93
				2/17/03	---	65.15	3098.93
				5/29/03	---	65.19	3098.89
				8/22/03	---	65.09	3098.99
				11/5/03	---	65.09	3098.99
				2/3/04	---	65.06	3099.02
				5/5/04	---	64.97	3099.11
				8/2/04	---	64.54	3099.54
				11/23/04	---	64.47	3099.61
				2/9/05	---	64.18	3099.90
				8/4/05	---	64.30	3099.78
				2/22/06	---	63.93	3100.15
				8/24/06	---	64.09	3099.99
				2/27/07	---	63.74	3100.34
				8/23/07	---	63.54	3100.54
				2/18/08	---	63.55	3100.53
				8/11/08	---	63.61	3100.47
	2/16/09			---	64.09	3099.99	
	7/27/09			---	64.22	3099.86	
	2/22/10			---	64.15	3099.93	
	7/26/10			---	64.46	3099.62	
	2/15/11			---	64.16	3099.92	
	8/16/11			---	64.04	3100.04	
	2/20/12			---	64.20	3099.88	
	8/24/12			---	64.44	3099.64	
	2/18/13			---	64.27	3099.81	
	8/13/13			---	64.49	3099.59	
	4/2/14			---	60.24	3103.84	
	10/9/14			---	60.65	3103.43	
	6/23/15			---	64.22	3099.86	
	10/6/15			---	64.38	3099.70	
	6/23/16			---	64.26	3099.82	
	10/6/16			---	64.22	3099.86	
	05/22/17			---	64.26	3102.23	
	10/11/17			---	64.35	3102.14	
	05/09/18			---	64.17	3102.32	
	10/09/18			---	64.60	3101.89	
	06/11/19			73.26	64.26	3102.23	
	11/21/19			73.30	64.46	3102.03	
MW-04	3,165.65	2	50'-70'	2/4/98	73.31	63.94	3101.71
				10/19/00	---	63.80	3101.85
				2/7/01	---	63.78	3101.87
				4/30/02	---	63.72	3101.93
				10/11/02	---	63.74	3101.91
				12/26/02	---	63.74	3101.91
				2/17/03	---	63.74	3101.91
				5/29/03	---	63.83	3101.82
				8/22/03	---	63.71	3101.94
				11/5/03	---	63.68	3101.97
				2/3/04	---	63.64	3102.01
				5/5/04	---	63.55	3102.10
				8/2/04	---	63.45	3102.20
				11/23/04	---	62.91	3102.74
				2/9/05	---	62.83	3102.82
				8/4/05	---	63.12	3102.53
				2/23/06	---	62.80	3102.85
				8/25/06	---	62.97	3102.68
				2/27/07	---	62.60	3103.05
				8/23/07	---	62.33	3103.32
	2/18/08			---	62.35	3103.30	
	8/11/08			---	62.38	3103.27	
	2/16/09			---	62.73	3102.92	
	7/27/09			---	62.85	3102.80	
	2/22/10			---	62.72	3102.93	
	7/26/10			---	62.99	3102.66	
	2/15/11			---	62.70	3102.95	
	8/16/11			---	62.64	3103.01	
	2/20/12			---		NG	
	8/24/12			---	63.41	3102.24	
	2/18/13			---	64.27	3101.38	
	8/13/13			---	62.93	3102.72	
	4/2/14			---	62.76	3102.89	
	10/9/14			---	62.80	3102.85	
	6/23/15			---	62.77	3102.88	
	10/6/15			---	62.43	3103.22	
	6/23/16			---	62.87	3102.78	
	10/6/16			---	62.80	3102.85	
	05/22/17			---	65.00	3103.08	
	10/11/17			---	63.05	3105.03	
	05/09/18			---	63.01	3105.07	
	10/08/18			---	63.24	3104.84	
	06/11/19			73.31	63.10	3104.98	
11/21/19	73.03	63.25	3104.83				

Appendix D
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Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)	
MW-05	3,160.75	2	50'-70'	2/4/98	73.10	60.33	3100.42	
				10/19/00	---	60.25	3100.50	
				2/7/01	---	60.58	3100.17	
				4/30/02	---	62.27	3098.48	
				10/11/02	---	60.29	3100.46	
				12/26/02	---	60.29	3100.46	
				2/17/03	---	60.30	3100.45	
				5/29/03	---	60.33	3100.42	
				8/22/03	---	60.24	3100.51	
				11/5/03	---	60.24	3100.51	
				2/3/04	---	60.20	3100.55	
				5/5/04	---	60.04	3100.71	
				8/2/04	---	59.97	3100.78	
				11/23/04	---	59.51	3101.24	
				2/9/05	---	59.32	3101.43	
				8/4/05	---	59.55	3101.20	
				2/22/06	---	59.22	3101.53	
				8/24/06	---	59.39	3101.36	
				2/27/07	---	59.03	3101.72	
				8/23/07	---	58.84	3101.91	
				2/18/08	---	58.83	3101.92	
				8/11/08	---	58.84	3101.91	
				2/16/09	---	59.36	3101.39	
				7/27/09	---	59.50	3101.25	
				2/22/10	---	59.35	3101.40	
				7/26/10	---	59.72	3101.03	
	2/15/11			---	NG			
	8/16/11			---	59.28	3101.47		
	2/20/12			---	59.46	3101.29		
	8/24/12			---	59.47	3101.28		
	2/18/13			---	59.51	3101.24		
	8/13/13			---	59.71	3101.04		
	4/2/14			---	59.45	3101.30		
	10/9/14			---	59.70	3101.05		
	6/23/15			---	59.46	3101.29		
	10/6/15			---	59.61	3101.14		
	6/23/16			---	59.45	3101.30		
	10/6/16			---	59.42	3101.33		
	05/22/17			---	59.47	3103.72		
	10/11/17			---	59.50	3103.69		
	05/09/18			---	59.37	3103.82		
	10/09/18			---	59.60	3103.59		
	06/11/19			73.10	59.53	3103.66		
	11/21/19			72.51	59.75	3103.44		
MW-06	3,164.18	2	59'-74'	2/7/01	77.24	68.00	3096.18	
				4/30/02	---	68.10	3096.08	
				10/11/02	---	68.04	3096.14	
				12/26/02	---	68.03	3096.15	
				2/17/03	---	68.03	3096.15	
				5/29/03	---	68.38	3095.80	
				8/22/03	---	67.99	3096.19	
				11/5/03	---	67.99	3096.19	
				2/3/04	---	67.92	3096.26	
				5/5/04	---	67.88	3096.30	
				8/2/04	---	67.78	3096.40	
				11/23/04	---	67.31	3096.87	
				2/9/05	---	67.17	3097.01	
				8/4/05	---	63.13	3101.05	
				2/22/06	---	66.72	3097.46	
				8/24/06	---	66.93	3097.25	
				2/27/07	---	66.58	3097.60	
				8/27/07	---	66.35	3097.83	
				2/18/08	---	66.35	3097.83	
				8/11/08	---	66.39	3097.79	
				2/16/09	---	66.94	3097.24	
				7/27/09	---	67.04	3097.14	
				2/22/10	---	67.10	3097.08	
				7/26/10	---	67.32	3096.86	
				2/15/11	---	67.15	3097.03	
				8/16/11	---	67.09	3097.09	
				2/20/12	---	67.14	3097.04	
				8/24/12	---	67.53	3096.65	
				2/18/13	---	67.68	3096.50	
				8/13/13	---	67.41	3096.77	
				4/2/14	---	67.32	3096.86	
				10/9/14	---	67.63	3096.55	
				6/23/15	---	67.17	3097.01	
				10/6/15	---	67.37	3096.81	
				6/23/16	---	67.33	3096.85	
				10/6/16	---	67.29	3096.89	
				05/22/17	---	67.31	3099.29	
				10/11/17	---	67.35	3099.25	
				05/09/18	---	67.38	3099.22	
				10/09/18	---	67.40	3099.20	
	3,166.60			06/11/19	77.24	67.17	3099.43	
				11/21/19	76.72	67.44	3099.16	

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Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-07	3,162.06	2	55'-70'	2/7/01	73.45	67.25	3094.81
				4/30/02	---	67.50	3094.56
				10/11/02	---	67.53	3094.53
				12/26/02	---	67.53	3094.53
				2/17/03	---	67.53	3094.53
				5/29/03	---	67.61	3094.45
				8/22/03	---	67.49	3094.57
				11/5/03	---	67.47	3094.59
				2/3/04	---	67.46	3094.60
				5/5/04	---	67.44	3094.62
				8/2/04	---	67.34	3094.72
				11/23/04	---	67.02	3095.04
				2/9/05	---	67.74	3094.32
				8/4/05	---	66.62	3095.44
				2/22/06	---	66.31	3095.75
				8/24/06	---	66.37	3095.69
				2/27/07	---	66.05	3096.01
				8/23/07	---	65.87	3096.19
				2/18/08	---	65.88	3096.18
				8/11/08	---	65.91	3096.15
				2/16/09	---	66.35	3095.71
				7/27/09	---	66.51	3095.55
				2/22/10	---	66.70	3095.36
				7/26/10	---	66.86	3095.20
				2/15/11	---	66.74	3095.32
				8/16/11	---	66.73	3095.33
				2/20/12	---	66.74	3095.32
				8/23/12	---	66.98	3095.08
				2/18/13	---	66.97	3095.09
				8/13/13	---	67.03	3095.03
				4/2/14	---	67.00	3095.06
				10/9/14	---	67.04	3095.02
				6/23/15	---	66.76	3095.30
				10/6/15	---	66.90	3095.16
				6/23/16	---	66.95	3095.11
				10/6/16	---	66.89	3095.17
				05/22/17	---	66.94	3097.49
				10/11/17	---	67.00	3097.43
	05/08/18			---	66.70	3097.73	
	10/09/18			---	67.01	3097.42	
	06/11/19			73.45	66.75	3097.68	
	11/21/19			71.63	66.93	3097.50	
MW-08	3,159.66	2	50'-70'	2/3/99	70.66	68.21	3091.45
				2/7/01	---	68.30	3091.36
				4/30/02	---	68.42	3091.24
				10/11/02	---	68.30	3091.36
				12/26/02	---	68.30	3091.36
				2/17/03	---	68.30	3091.36
				5/29/03	---	68.36	3091.30
				8/22/03	---	68.26	3091.40
				11/5/03	---	68.26	3091.40
				2/3/04	---	68.24	3091.42
				5/5/04	---	68.24	3091.42
				8/2/04	---	68.17	3091.49
				11/23/04	---	67.72	3091.94
				2/9/05	---	67.41	3092.25
				8/4/05	---	67.39	3092.27
				2/22/06	---	67.04	3092.62
				8/24/06	---	67.29	3092.37
				2/27/07	---	66.87	3092.79
				8/23/07	---	66.77	3092.89
				2/18/08	---	66.79	3092.87
				8/11/08	---	66.81	3092.85
				2/16/09	---	67.31	3092.35
				7/27/09	---	67.40	3092.26
				2/22/10	---	67.53	3092.13
				7/26/10	---	67.65	3092.01
				2/15/11	---	67.65	3092.01
				8/16/11	---	67.59	3092.07
				2/20/12	---	67.59	3092.07
				8/23/12	---	67.73	3091.93
				2/19/13	---	67.86	3091.80
				8/13/13	---	67.76	3091.90
				4/2/14	---	67.82	3091.84
				10/9/14	---	67.80	3091.86
				6/23/15	---	67.55	3092.11
				10/6/15	---	67.66	3092.00
				6/22/16	---	67.69	3091.97
				10/6/16	---	67.70	3091.96
				05/22/17	---	67.73	3094.32
	10/11/17			---	67.90	3094.15	
	05/08/18			---	67.62	3094.43	
	10/09/18			---	67.72	3094.33	
	06/11/19			70.66	67.71	3094.34	
11/22/19	73.47	67.81	3094.24				

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-09	3,167.07	2	55'-70'	4/30/02	70.39	63.65	3103.42
				10/11/02	---	63.59	3103.48
				12/26/02	---	63.59	3103.48
				2/17/03	---	63.60	3103.47
				5/29/03	---	63.73	3103.34
				8/22/03	---	63.56	3103.51
				11/5/03	---	63.55	3103.52
				2/3/04	---	63.47	3103.60
				5/5/04	---	63.27	3103.80
				8/2/04	---	63.24	3103.83
				11/23/04	---	62.40	3104.67
				2/9/05	---	62.50	3104.57
				8/4/05	---	62.89	3104.18
				2/23/06	---	62.48	3104.59
				8/25/06	---	62.68	3104.39
				2/27/07	---	62.23	3104.84
				8/23/07	---	61.88	3105.19
				2/18/08	---	61.90	3105.17
				8/11/08	---	61.91	3105.16
				2/16/09	---	62.33	3104.74
				7/27/09	---	62.42	3104.65
	2/22/10			---	62.33	3104.74	
	7/26/10			---	62.53	3104.54	
	2/15/11			---	62.25	3104.82	
	8/16/11			---	62.29	3104.78	
	2/20/12			---	NG		
	8/24/12			---	62.53	3104.54	
	2/19/13			---	62.45	3104.62	
	8/13/13			---	62.43	3104.64	
	4/2/14			---	62.25	3104.82	
	10/9/14			---	62.01	3105.06	
	6/23/15			---	62.24	3104.83	
	10/6/15			---	62.39	3104.68	
	6/22/16			---	62.46	3104.61	
	10/6/16			---	62.47	3104.60	
	05/22/17			---	62.73	3106.97	
	10/11/17			---	62.70	3107.00	
	05/08/18			---	64.00	3105.70	
	10/09/18			---	62.91	3106.79	
	06/11/19			70.39	62.87	3106.83	
	11/21/19			68.26	63.17	3106.53	
MW-10	3,170.99	2	54'-69'	4/30/02	72.20	70.35	3100.64
				10/11/02	---	70.49	3100.50
				12/26/02	---	70.50	3100.49
				2/17/03	---	70.50	3100.49
				5/29/03	---	70.37	3100.62
				8/22/03	---	70.47	3100.52
				11/5/03	---	70.49	3100.50
				2/3/04	---	70.43	3100.56
				5/5/04	---	70.38	3100.61
				8/2/04	---	70.26	3100.73
				11/23/04	---	69.78	3101.21
				2/9/05	---	NG	
				8/4/05	---	69.89	3101.10
				2/22/06	---	69.59	3101.40
				8/25/06	---	69.65	3101.34
				2/27/07	---	69.29	3101.70
				8/23/07	---	69.06	3101.93
				2/18/08	---	69.06	3101.93
				8/11/08	---	69.05	3101.94
				2/16/09	---	69.74	3101.25
	7/27/09			---	69.27	3101.72	
	2/22/10			---	69.30	3101.69	
	7/26/10			---	69.40	3101.59	
	2/15/11			---	NG		
	8/16/11			---	69.28	3101.71	
	2/20/12			---	NG		
	8/24/12			---	69.41	3101.58	
	2/19/13			---	69.40	3101.59	
	8/13/13			---	69.34	3101.65	
	4/2/14			---	69.33	3101.66	
	10/9/14			---	69.38	3101.61	
	6/23/15			---	62.26	3108.73	
	10/6/15			---	69.37	3101.62	
	6/22/16			---	69.43	3101.56	
	10/6/16			---	69.47	3101.52	
	05/22/17			---	69.60	3103.85	
	10/11/17			---	69.70	3103.75	
	05/09/18			---	69.61	3103.84	
	10/09/18			---	69.83	3103.62	
	6/11/19			72.20	69.83	3103.62	
	11/21/19			72.02	69.94	3103.51	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-11	3,168.24	2	58'-73'	4/30/02	75.60		DRY
				10/11/02	---		DRY
				12/26/02	---		DRY
				2/17/03	---		DRY
				5/29/03	---		DRY
				8/22/03	---		DRY
				11/5/03	---		DRY
				2/3/04	---		DRY
				5/5/04	---		DRY
				8/2/04	---		DRY
				11/23/04	---		DRY
				2/9/05	---		DRY
				8/4/05	---	61.91	3106.33
				2/22/06	---	74.71	3093.53
				8/24/06	---	74.71	3093.53
				2/27/07	---	74.51	3093.73
				8/23/07	---	74.38	3093.86
				2/18/08	---	74.21	3094.03
				8/11/08	---	74.38	3093.86
				2/16/09	---	74.46	3093.78
	7/27/09			---	74.45	3093.79	
	2/22/10			---	74.52	3093.72	
	7/26/10			---	74.61	3093.63	
	2/15/11			---	74.56	3093.68	
	8/16/11			---	74.63	3093.61	
	2/20/12			---		NG	
	8/23/12			---	74.62	3093.62	
	2/18/13			---	74.65	3093.59	
	8/13/13			---	74.66	3093.58	
	4/2/14			---	74.73	3093.51	
	10/9/14			---	74.7	3093.54	
	6/23/15			---	74.49	3093.75	
	10/6/15			---	74.60	3093.64	
	6/22/16			---	74.68	3093.56	
	10/6/16			---	74.70	3093.54	
	05/22/17			---		NG	
	10/11/17			---	74.88	3095.78	
	05/08/18			---	74.87	3095.79	
	10/08/18			---	74.87	3095.79	
	06/11/19			75.60	74.85	3095.81	
	11/22/19			75.60	74.93	3095.73	
MW-12	3,152.48	2	59'-74'	4/30/02	77.81	72.80	3079.68
				10/11/02	---	72.81	3079.67
				12/26/02	---	72.82	3079.66
				2/17/03	---	72.82	3079.66
				5/29/03	---	72.77	3079.71
				8/22/03	---	72.81	3079.67
				11/5/03	---	72.81	3079.67
				2/3/04	---	72.83	3079.65
				5/5/04	---	72.78	3079.70
				8/2/04	---	72.81	3079.67
				11/23/04	---	72.69	3079.79
				2/9/05	---	72.83	3079.65
				8/4/05	---	72.48	3080.00
				2/22/06	---	72.15	3080.33
				8/24/06	---	71.91	3080.57
				2/27/07	---	71.75	3080.73
				8/23/07	---	71.51	3080.97
				2/18/08	---	71.42	3081.06
				8/11/08	---	71.46	3081.02
				2/16/09	---	73.13	3079.35
	7/27/09			---	71.59	3080.89	
	2/22/10			---	71.94	3080.54	
	7/26/10			---	72.21	3080.27	
	2/15/11			---	72.36	3080.12	
	8/16/11			---	72.50	3079.98	
	2/20/12			---	72.45	3080.03	
	8/22/12			---	72.71	3079.77	
	2/19/13			---	72.65	3079.83	
	8/13/13			---	72.59	3079.89	
	4/2/14			---	72.83	3079.65	
	10/9/14			---	72.91	3079.57	
	6/23/15			---	72.52	3079.96	
	10/6/15			---	71.48	3081.00	
	6/22/16			---	72.72	3079.76	
	10/6/16			---	72.73	3079.75	
	5/22/17			---	72.65	3082.28	
	10/11/17			---	72.71	3082.22	
	05/08/18			---	72.54	3082.39	
	10/08/18			---	72.61	3082.32	
	6/11/19			77.81	72.61	3082.32	
	11/22/19			77.49	72.66	3082.27	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
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WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-13	3,154.92	2	53'-68'	4/30/02	70.55	66.97	3087.95
				10/11/02	---	66.38	3088.54
				12/26/02	---	66.37	3088.55
				2/17/03	---	66.37	3088.55
				5/29/03	---	66.68	3088.24
				8/22/03	---	67.06	3087.86
				11/5/03	---	67.36	3087.56
				2/3/04	---	67.11	3087.81
				5/5/04	---	67.05	3087.87
				8/2/04	---	67.21	3087.71
				11/23/04	---	66.82	3088.10
				2/9/05	---	66.50	3088.42
				8/4/05	---	66.11	3088.81
				2/22/06	---	65.73	3089.19
				8/24/06	---	65.45	3089.47
				2/27/07	---	65.22	3089.70
				8/23/07	---	65.06	3089.86
				2/18/08	---	65.10	3089.82
				8/11/08	---	65.12	3089.80
				2/16/09	---	64.74	3090.18
	3,157.36			7/27/09	---	64.89	3090.03
				2/22/10	---	65.19	3089.73
				7/26/10	---	65.45	3089.47
				2/15/11	---	65.60	3089.32
				8/16/11	---	65.79	3089.13
				2/20/12	---	65.83	3089.09
				8/23/12	---	66.01	3088.91
				2/19/13	---	66.11	3088.81
				8/13/13	---	66.17	3088.75
				4/2/14	---	66.91	3088.01
				10/9/14	---	66.68	3088.24
				6/23/15	---	66.43	3088.49
				10/6/15	---	66.56	3088.36
				6/23/16	---	66.61	3088.31
				10/6/16	---	66.61	3088.31
				5/22/17	---	67.65	3089.71
				10/11/17	---	66.75	3090.61
				05/08/18	---	66.60	3090.76
				10/09/18	---	66.65	3090.71
				6/11/19	70.55	66.70	3090.66
11/21/19	70.40	66.60	3090.76				
MW-14	3,151.91	2	79.5'-89.5'	11/5/03	92.43	71.60	3080.31
				2/3/04	---	71.62	3080.29
				5/5/04	---	71.67	3080.24
				8/2/04	---	71.69	3080.22
				11/23/04	---	71.60	3080.31
				2/9/05	---	71.30	3080.61
				8/4/05	---	70.90	3081.01
				2/22/06	---	70.49	3081.42
				8/24/06	---	70.24	3081.67
				2/27/07	---	70.05	3081.86
				8/23/07	---	69.78	3082.13
				2/18/08	---	69.68	3082.23
				8/11/08	---	69.72	3082.19
				2/16/09	---	69.31	3082.60
				7/27/09	---	69.37	3082.54
				2/22/10	---	69.65	3082.26
				7/26/10	---	69.95	3081.96
				2/15/11	---	70.20	3081.71
				8/16/11	---	70.39	3081.52
				3,154.54	2/20/12	---	70.48
	8/23/12				---	70.81	3081.10
	2/19/13				---	70.97	3080.94
	8/13/13				---	70.92	3080.99
	4/2/14				---	71.14	3080.77
	10/9/14				---	71.52	3080.39
	6/23/15				---	71.38	3080.53
	10/6/15				---	71.46	3080.45
	6/22/16				---	71.65	3080.26
	10/6/16				---	71.68	3080.23
	5/22/17				---	71.74	3082.80
	10/11/17				---	71.90	3082.64
	05/08/18				---	71.81	3082.73
	10/08/18				---	71.91	3082.63
	6/11/19				92.43	71.75	3082.79
	11/21/19				89.97	71.70	3082.84

Appendix D
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Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
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WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-15	3,152.48	2	64.5'-84.5'	11/5/03	87.45		DRY
				2/3/04	---		DRY
				5/5/04	---		DRY
				8/2/04	---		DRY
				11/23/04	---		DRY
				2/9/05	---		DRY
				8/4/05	---	86.91	3065.57
				2/22/06	---	86.54	3065.94
				8/24/06	---	86.34	3066.14
				2/27/07	---	85.73	3066.75
				8/23/07	---	85.26	3067.22
				2/18/08	---	81.90	3070.58
				8/11/08	---	81.99	3070.49
				2/16/09	---	77.83	3074.65
				7/27/09	---	77.19	3075.29
				2/22/10	---	77.06	3075.42
	7/26/10			---	77.05	3075.43	
	2/15/11			---	77.08	3075.40	
	8/16/11			---	77.23	3075.25	
	2/20/12			---	77.31	3075.17	
	8/22/12			---	77.50	3074.98	
	2/19/13			---	77.61	3074.87	
	8/13/13			---	77.78	3074.70	
	4/2/14			---	78.51	3073.97	
	10/9/14			---	78.30	3074.18	
	6/23/15			---	78.26	3074.22	
	10/6/15			---	78.51	3073.97	
	6/22/16			---	78.65	3073.83	
	10/6/16			---	78.82	3073.66	
	5/22/17			---	78.94	3076.00	
	10/11/17			---	79.40	3075.54	
	05/08/18			---	79.54	3075.40	
10/08/18	---	80.03	3074.91				
6/11/19	87.45	80.17	3074.77				
11/22/19	87.37	80.60	3074.34				
MW-16	3,157.25	2	59.5'-74.5'	11/5/03	77.22	65.68	3091.57
				2/3/04	---	68.67	3088.58
				5/5/04	---	68.69	3088.56
				8/2/04	---	68.65	3088.60
				11/23/04	---	68.10	3089.15
				2/9/05	---	67.53	3089.72
				8/4/05	---	67.77	3089.48
				2/22/06	---	67.24	3090.01
				8/24/06	---	67.66	3089.59
				2/27/07	---	67.09	3090.16
				8/23/07	---	67.10	3090.15
				2/18/08	---	67.03	3090.22
				8/11/08	---	67.09	3090.16
				2/16/09	---	67.85	3089.40
				7/27/09	---	67.92	3089.33
				2/22/10	---	68.10	3089.15
	7/26/10			---	68.20	3089.05	
	2/15/11			---	68.18	3089.07	
	8/16/11			---	68.16	3089.09	
	2/20/12			---	68.12	3089.13	
	8/23/12			---	68.20	3089.05	
	2/19/13			---	68.43	3088.82	
	8/13/13			---	68.25	3089.00	
	4/2/14			---	68.42	3088.83	
	10/9/14			---	68.38	3088.87	
	6/23/15			---	68.03	3089.22	
	10/6/15			---	68.18	3089.07	
	6/22/16			---	68.28	3088.97	
	10/6/16			---	68.20	3089.05	
	5/22/17			---	68.24	3091.42	
	10/11/17			---	68.34	3091.32	
	05/08/18			---	68.08	3091.58	
10/08/18	---	68.21	3091.45				
6/11/19	77.22	68.05	3091.61				
11/22/19	74.41	68.25	3091.41				

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-17	3,158.37	2	57'-77'	11/5/03	79.37	69.51	3088.86
				2/3/04	---	69.53	3088.84
				5/5/04	---	69.52	3088.85
				8/2/04	---	70.12	3088.25
				11/23/04	---	69.31	3089.06
				2/9/05	---	69.04	3089.33
				8/4/05	---	68.90	3089.47
				2/22/06	---	68.72	3089.65
				8/24/06	---	68.78	3089.59
				2/27/07	---	68.55	3089.82
				8/23/07	---	68.50	3089.87
				2/18/08	---	68.41	3089.96
				8/11/08	---	68.43	3089.94
				2/16/09	---	68.87	3089.50
				7/27/09	---	68.99	3089.38
				2/22/10	---	69.14	3089.23
				7/26/10	---	69.22	3089.15
				2/15/11	---	69.23	3089.14
				8/16/11	---	69.23	3089.14
				2/20/12	---	69.19	3089.18
				8/23/12	---	69.36	3089.01
				2/19/13	---	69.49	3088.88
				8/13/13	---	69.31	3089.06
				4/2/14	---	69.53	3088.84
				10/9/14	---	69.41	3088.96
	6/23/15			---	69.10	3089.27	
	10/6/15			---	69.27	3089.10	
	6/22/16			---	69.26	3089.11	
	10/6/16			---	69.29	3089.08	
	5/22/17			---	69.25	3091.47	
	10/11/17			---	69.36	3091.36	
	05/08/18			---	69.10	3091.62	
	10/08/18			---	69.31	3091.41	
	6/11/19			79.37	69.16	3091.56	
	11/22/19			76.94	69.25	3091.47	
MW-18	3,151.08	2	54.5'-74.5'	11/23/04	76.98	---	DRY
				2/9/05	---	---	DRY
				8/4/05	---	---	DRY
				2/22/06	---	---	DRY
				8/24/06	---	---	DRY
				2/27/07	---	---	DRY
				8/23/07	---	---	DRY
				2/18/08	---	---	DRY
				8/11/08	---	---	DRY
				2/16/09	---	---	DRY
				7/27/09	---	---	DRY
				2/22/10	---	---	DRY
				7/26/10	---	---	DRY
				2/15/11	---	---	DRY
				8/16/11	---	---	DRY
				2/20/12	---	---	DRY
				8/23/12	---	---	DRY
				2/18/13	---	---	DRY
				8/13/13	---	---	DRY
				4/2/14	---	---	DRY
				10/9/14	---	---	DRY
				6/23/15	---	---	DRY
				10/6/15	---	---	DRY
				6/23/16	---	---	DRY
				10/6/16	---	---	DRY
	5/22/17			---	---	DRY	
	10/11/17			---	---	DRY	
	05/08/18			---	---	DRY	
	10/08/18			---	---	DRY	
	6/11/19			76.98	78.45	3075.35	
	11/21/19			78.50	78.44	3075.36	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-19	3,147.79	2	82.5'-102.5'	11/23/04	105.61	72.63	3075.16
				2/9/05	---	72.36	3075.43
				8/4/05	---	72.18	3075.61
				2/22/06	---	71.83	3075.96
				8/24/06	---	71.57	3076.22
				2/27/07	---	71.28	3076.51
				8/23/07	---	70.75	3077.04
				2/18/08	---	70.29	3077.50
				8/11/08	---	70.33	3077.46
				2/16/09	---	71.54	3076.25
				7/27/09	---	70.71	3077.08
				2/22/10	---	69.91	3077.88
				7/26/10	---	70.15	3077.64
				2/15/11	---	70.26	3077.53
				8/16/11	---	70.50	3077.29
				2/20/12	---	70.61	3077.18
				8/23/12	---	70.01	3077.78
				2/19/13	---	71.34	3076.45
				8/13/13	---	71.31	3076.48
				4/2/14	---	71.85	3075.94
				10/9/14	---	72.50	3075.29
				6/23/15	---	72.13	3075.66
				10/6/15	---	72.30	3075.49
				6/22/16	---	72.77	3075.02
				10/6/16	---	72.96	3074.83
	5/22/17			---	72.90	3077.36	
	10/11/17			---	72.85	3077.41	
	05/08/18			---	73.01	3077.25	
	10/08/18			---	73.04	3077.22	
	6/11/19			105.61	73.08	3077.18	
	11/21/19			104.55	73.01	3077.25	
MW-20	3,151.56	2	72.5'-92.5'	11/23/04	94.94	81.81	3069.75
				2/9/05	---	81.85	3069.71
				8/4/05	---	81.81	3069.75
				2/22/06	---	81.71	3069.85
				8/24/06	---	81.66	3069.90
				2/27/07	---	81.39	3070.17
				8/23/07	---	81.20	3070.36
				2/18/08	---	80.93	3070.63
				8/11/08	---	80.96	3070.60
				2/16/09	---	80.58	3070.98
				7/27/09	---	80.42	3071.14
				2/22/10	---	80.35	3071.21
				7/26/10	---	80.39	3071.17
				2/15/11	---	80.38	3071.18
				8/16/11	---	80.52	3071.04
				2/20/12	---	80.61	3070.95
				8/22/12	---	80.85	3070.71
				2/19/13	---	81.09	3070.47
				8/13/13	---	81.23	3070.33
				4/2/14	---	81.57	3069.99
				10/9/14	---	81.70	3069.86
				6/23/15	---	81.81	3069.75
				10/6/15	---	81.96	3069.60
				6/22/16	---	82.17	3069.39
				10/6/16	---	82.26	3069.30
	5/22/17			---	82.29	3071.70	
	10/11/17			---	82.50	3071.49	
	5/8/18			---	82.48	3071.51	
	10/8/18			---	82.68	3071.31	
	6/11/19			94.94	82.72	3071.27	
	11/22/19			88.83	82.79	3071.20	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-21	3,145.87	2	67'-97'	11/20/07	99.00	71.05	3074.82
				2/18/08	---	70.96	3074.91
				8/11/08	---	71.01	3074.86
				2/16/09	---	70.78	3075.09
				7/27/09	---	70.71	3075.16
				2/22/10	---	70.83	3075.04
				7/26/10	---	71.03	3074.84
				2/15/11	---	71.04	3074.83
				8/16/11	---	71.31	3074.56
				2/20/12	---	71.50	3074.37
				8/22/12	---	71.79	3074.08
				2/19/13	---	72.06	3073.81
				8/13/13	---	72.27	3073.60
				4/2/14	---	72.65	3073.22
				10/9/14	---	73.41	3072.46
				6/23/15	---	73.04	3072.83
				10/6/15	---	73.26	3072.61
				6/22/16	---	73.34	3072.53
	3,147.45			10/6/16	---	73.41	3072.46
				5/22/17	---	73.51	3073.94
				10/11/17	---	73.62	3073.83
				05/08/18	---	73.32	3074.13
				10/08/18	---	73.71	3073.74
				6/11/19	99.00	73.30	3074.15
				11/21/19	96.17	73.60	3073.85
MW-22	3,170.64	2	46.5'-66.5'	11/20/07	68.95	62.35	3108.29
				2/18/08	---	62.59	3108.05
				8/11/08	---	62.62	3108.02
				2/16/09	---	62.68	3107.96
				7/27/09	---	62.90	3107.74
				2/22/10	---	62.74	3107.90
				7/26/10	---	62.80	3107.84
				2/15/11	---	62.59	3108.05
				8/16/11	---	62.71	3107.93
				2/21/12	---	NG	
				8/24/12	---	62.91	3107.73
				2/19/13	---	62.61	3108.03
				8/13/13	---	62.60	3108.04
				4/2/14	---	62.60	3108.04
				10/9/14	---	61.90	3108.74
				6/23/15	---	62.61	3108.03
				10/6/15	---	62.79	3107.85
				6/22/16	---	62.98	3107.66
	3,172.45			10/6/16	---	63.07	3107.57
				5/22/17	---	63.27	3109.18
				10/11/17	---	63.21	3109.24
				05/08/18	---	63.41	3109.04
				10/09/18	---	63.70	3108.75
				06/11/19	68.95	63.66	3108.79
				11/21/19	67.79	63.87	3108.58

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-23	3,154.38	2	70-100'	2/20/12	103.60	89.59	3064.79
				8/22/12	---	89.54	3064.84
				2/19/13	---	89.71	3064.67
				8/13/13	---	89.72	3064.66
				4/2/14	---	89.99	3064.39
				10/9/14	---	90.03	3064.35
				6/23/15	---	90.22	3064.16
				10/6/15	---	90.37	3064.01
				6/22/16	---	90.44	3063.94
				10/6/16	---	90.46	3063.92
				5/22/17	---	90.62	3065.37
				10/11/17	---	90.80	3065.19
				05/08/18	---	90.77	3065.22
				10/08/18	---	90.83	3065.16
				06/11/19	103.60	91.08	3064.91
				11/22/19	101.52	91.11	3064.88
MW-24	3,146.07	2	30-60'	2/20/12	62.95	48.81	3097.26
				8/22/12	---	49.11	3096.96
				2/19/13	---	49.23	3096.84
				8/13/13	---	49.35	3096.72
				4/2/14	---	49.50	3096.57
				10/9/14	---	50.05	3096.02
				6/23/15	---	49.65	3096.42
				10/6/15	---	49.80	3096.27
				6/22/16	---	49.87	3096.20
				10/6/16	---	49.99	3096.08
				5/22/17	---	49.98	3097.63
				10/11/17	---	50.15	3097.46
				05/08/18	---	49.68	3097.93
				10/08/18	---	49.94	3097.67
				6/11/19	62.95	49.44	3098.17
				11/21/19	62.63	49.52	3098.09
MW-25	3,171.32	2	65-95'	4/5/12	97.00	78.08	3093.24
				5/24/12	---	77.96	3093.36
				8/23/12	---	77.79	3093.53
				2/19/13	---	78.16	3093.16
				8/13/13	---	78.15	3093.17
				4/2/14	---	78.41	3092.91
				10/9/14	---	78.39	3092.93
				6/23/15	---	78.04	3093.28
				10/6/15	---	78.05	3093.27
				6/22/16	---	78.21	3093.11
				10/6/16	---	78.14	3093.18
				5/22/17	---	78.20	3094.65
				10/11/17	---	78.38	3094.47
				05/08/18	---	78.21	3094.64
				10/08/18	---	78.41	3094.44
				6/11/19	97.00	78.40	3094.45
				11/22/19	94.30	78.50	3094.35

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
MW-26	3,172.84	2	55-75'	4/5/12	76.61	63.02	3109.82
				5/24/12	---	63.02	3109.82
				8/24/12	---	63.02	3109.82
				2/19/13	---	62.98	3109.86
				8/13/13	---	62.89	3109.95
				4/2/14	---	62.85	3109.99
				10/9/14	---	63.02	3109.82
				6/23/15	---	63.10	3109.74
				10/6/15	---	63.22	3109.62
				6/22/16	---	63.47	3109.37
	3,174.63			10/6/16	---	63.50	3109.34
				5/22/17	---	63.72	3110.91
				10/11/17	---	63.90	3110.73
				05/08/18	---	63.94	3110.69
				10/08/18	---	64.13	3110.50
				6/11/19	76.61	64.22	3110.41
11/20/19	75.73	64.30	3110.33				
MW-27	3,146.60	2	25-45'	4/5/12	48.80	46.30	3100.30
				8/23/12	---		DRY
				2/19/13	---	48.20	3098.40
				8/13/13	---		DRY
				4/2/04	---		DRY
				10/9/04	---		DRY
				6/23/15	---		DRY
				10/6/15	---		DRY
				6/22/16	---		DRY
				10/6/16	---		DRY
	3,151.17			5/22/17	---		DRY
				10/11/17	---		DRY
				5/8/18	---		DRY
				10/8/18	---		DRY
				6/11/19	48.80		DRY
				11/20/19	48.58		DRY
MW-28	3,175.60	---	---	6/11/19	74.14	64.57	3111.03
				11/20/19	72.90	64.66	3110.94
MW-29	3,169.46	---	---	6/11/19	78.62	66.70	3102.76
				11/21/19	78.60	66.83	3102.63
MW-30	3,152.15	---	---	6/11/19	73.95	68.44	3083.71
				11/21/19	73.70	68.54	3083.61
MW-31	3,173.79	---	---	6/11/19	83.75	80.21	3093.58
				11/22/19	82.75	80.33	3093.46
MW-32	3,149.08	---	---	6/11/19	87.85	85.84	3063.24
				11/21/19	87.00	85.83	3063.25

Appendix D
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Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
WW-1	3,170.21	4	---	4/30/02	192.00	70.21	3100.00
				10/11/02	---	69.71	3100.50
				12/26/02	---	69.70	3100.51
				2/17/03	---	69.70	3100.51
				5/29/03	---	67.37	3102.84
				8/22/03	---	70.27	3099.94
				11/5/03	---	70.23	3099.98
				2/3/04	---	70.31	3099.90
				5/5/04	---	70.23	3099.98
				8/2/04	---	69.47	3100.74
				11/23/04	---	69.92	3100.29
				2/9/05	---	69.75	3100.46
				8/4/05	---	69.89	3100.32
				2/22/06	---	69.51	3100.70
				8/25/06	---	69.50	3100.71
				2/27/07	---	69.20	3101.01
				8/23/07	---	68.99	3101.22
				2/18/08	---	69.00	3101.21
				8/11/08	---	68.95	3101.26
				2/16/09	---	69.00	3101.21
				7/27/09	---	69.00	3101.21
				2/22/10	---	68.89	3101.32
				7/26/10	---	NG	
				2/15/11	---	NG	
				8/16/11	---	NG	
				2/20/12	---	69.05	3101.16
				8/23/12	---	69.22	3100.99
				2/18/13	---	69.22	3100.99
				8/13/13	---	69.09	3101.12
	4/2/14			---	69.07	3101.14	
	10/9/14			---	69.13	3101.08	
	6/23/15			---	69.10	3101.11	
	10/6/15			---	69.10	3101.11	
	6/22/16			---	69.27	3100.94	
	10/6/16			---	69.28	3100.93	
	5/22/17			---	69.54	3102.58	
	10/11/17			---	69.58	3102.54	
	05/08/18			---	69.44	3102.68	
	10/08/18			---	69.63	3102.49	
	6/11/19			---	192.00	69.69	3102.43
	11/22/19			---	187.80	69.78	3102.34
West MW	3,164.44	2	---	8/22/97	70.43	62.58	3101.86
				2/4/98	---	62.50	3101.94
				10/19/00	---	62.37	3102.07
				2/7/01	---	62.43	3102.01
				4/30/02	---	62.37	3102.07
				10/11/02	---	62.35	3102.09
				12/26/02	---	62.34	3102.10
				2/17/03	---	62.34	3102.10
				5/29/03	---	62.22	3102.22
				8/22/03	---	62.35	3102.09
				11/5/03	---	62.31	3102.13
				2/3/04	---	62.27	3102.17
				5/5/04	---	62.11	3102.33
				8/2/04	---	62.01	3102.43
				11/23/04	---	61.40	3103.04
				2/9/05	---	61.30	3103.14
				8/4/05	---	61.61	3102.83
				2/23/06	---	61.24	3103.20
				8/25/06	---	61.43	3103.01
				2/27/07	---	61.03	3103.41
				8/23/07	---	60.74	3103.70
				2/18/08	---	60.97	3103.47
				8/11/08	---	61.06	3103.38
				2/16/09	---	61.27	3103.17
				7/27/09	---	61.42	3103.02
				2/22/10	---	61.26	3103.18
				7/26/10	---	61.62	3102.82
				2/15/11	---	61.20	3103.24
				8/16/11	---	61.21	3103.23
	2/21/12			---	NG		
	8/24/12			---	61.52	3102.92	
	2/18/13			---	61.43	3103.01	
	8/13/13			---	61.56	3102.88	
	4/2/14			---	61.28	3103.16	
	10/9/14			---	61.40	3103.04	
	6/23/15			---	61.35	3103.09	
	10/6/15			---	61.48	3102.96	
	6/22/16			---	61.35	3103.09	
	10/6/16			---	61.34	3103.10	
	5/22/17			---	61.96	3104.91	
	10/11/17			---	62.25	3104.62	
05/08/18	---	61.42	3105.45				
10/09/18	---	61.63	3105.24				
6/11/19	70.43	61.89	3104.98				
11/21/19	67.30	61.80	3105.07				
	3,166.87						

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)	
Southwest MW	3,164.54	2	--	8/22/97	70.45	63.25	3101.29	
				2/4/98	---	63.21	3101.33	
				10/19/00	---	63.06	3101.48	
				2/7/01	---	63.10	3101.44	
				4/30/02	---	63.06	3101.48	
				10/11/02	---	62.72	3101.82	
				12/26/02	---	62.70	3101.84	
				2/17/03	---	62.70	3101.84	
				5/29/03	---	62.92	3101.62	
				8/22/03	---	63.04	3101.50	
				11/5/03	---	63.03	3101.51	
				2/3/04	---	62.99	3101.55	
				5/5/04	---	62.90	3101.64	
				8/2/04	---	62.71	3101.83	
				11/23/04	---	62.17	3102.37	
				2/9/05	---	62.05	3102.49	
				8/4/05	---	62.33	3102.21	
				2/23/06	---	61.98	3102.56	
				8/25/06	---	62.17	3102.37	
				2/27/07	---	61.78	3102.76	
				8/23/07	---	61.52	3103.02	
				2/18/08	---	61.9	3102.64	
				8/11/08	---	61.93	3102.61	
				2/16/09	---	62.10	3102.44	
				7/27/09	---	62.19	3102.35	
				2/22/10	---	62.00	3102.54	
				7/26/10	---	62.64	3101.90	
				2/15/11	---	NG		
				8/16/11	---	61.94	3102.60	
				2/21/12	---	NG		
				8/24/12	---	62.03	3102.51	
				2/18/13	---	62.75	3101.79	
				8/13/13	---	62.50	3102.04	
	4/2/14			---	62.15	3102.39		
	10/9/14			---	62.60	3101.94		
	6/23/15			---	62.28	3102.26		
	10/6/15			---	62.51	3102.03		
	6/23/16			---	62.12	3102.42		
	10/6/16			---	62.14	3102.40		
	5/22/17			---	62.21	3104.75		
	10/11/17			---	61.55	3105.41		
	3,166.96			05/09/18	---	62.13	3104.83	
				10/08/18	---	62.36	3104.60	
				6/11/19	70.45	62.28	3104.68	
				11/21/19	70.91	62.42	3104.54	

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Chevron Environmental Management Company
G.L. Erwin "A B" Federal NCT-2 Tank Battery
Lea County, New Mexico



WELL ID	TOC1 elevation	Well Diameter (in)	Screen Interval (bgs ³)	DATE	Total Depth (ft)	Depth to Water (ft)	Corrected Groundwater Elevation (ft above MSL ²)
RW-1	3,163.52	4	53'-73'	1/14/99	76.30	50.85	3112.67
				10/19/00	---	62.33	3101.19
				4/30/02	---	62.28	3101.24
				10/11/02	---	62.27	3101.25
				12/26/02	---	62.26	3101.26
				2/17/03	---	62.26	3101.26
				5/29/03	---	62.34	3101.18
				8/22/03	---	62.25	3101.27
				11/5/03	---	62.25	3101.27
				2/3/04	---	62.20	3101.32
				5/5/04	---	62.12	3101.40
				8/2/04	---	61.96	3101.56
				11/23/04	---	61.46	3102.06
				2/9/05	---	61.30	3102.22
				8/4/05	---	61.51	3102.01
				2/23/06	---	61.20	3102.32
				8/25/06	---	61.36	3102.16
				2/27/07	---	62.44	3101.08
				8/23/07	---		NG
				2/18/08	---		NG
				2/16/09	---		NG
				7/27/09	---		NG
				2/22/10	---		NG
				7/26/10	---		NG
				2/15/11	---		NG
				8/16/11	---	61.14	3102.38
				2/20/12	---		NG
				8/24/12	---		NG
				2/18/13	---	69.96	3093.56
				8/13/13	---		NG
				4/2/14	---		NG
				10/9/14	---		NG
				6/23/15	---		NG
				10/6/15	---		NG
				6/23/16	---		NG
				10/6/16	---		NG
				5/22/17	---		NG
				10/11/17	---		NG
				5/9/18	---		NG
				10/9/18	---	61.76	3101.76
				6/11/19	76.30	61.46	3102.06
				11/21/19			Not Gauged

Notes:

- 1 - Top of Casing
- 2 - Mean Sea Level
- 3 - Below ground surface
- 4 -NG - Not Gauged due to presence of recovery pump

All depths were measured from the TOC

Professional Surveys were conducted by Piper Surveying Company in February and July 1998, October 2001
October 2003 and December 2004

Professional Surveys were conducted by West Company in November 2011, June 2012, and August 2017.



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

CONDITIONS

Action 200168

CONDITIONS

Operator: TEXACO PIPELINE INC P.O. Box 5080 Bellaire, TX BAD ADDR	OGRID: 22438
	Action Number: 200168
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2019 Annual Groundwater Monitoring Report for G.L. Erwin Federal NCT-2 Tank Battery: Content Satisfactory 1. Continue to conduct groundwater monitoring and sampling. 2 Continue LNAPL Recovery efforts per report. 3. Submit the 2020, 2021 and 2022 annual groundwater reports by or before April each consecutive year.	8/17/2023