



May 11, 2020

Dylan Rose-Coss
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: 2019 Groundwater Sampling and MW-1R Pumping Report
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery,
Section 22, Township 22 South, Range 37 East,
Lea County, New Mexico.
NMOCD Abatement Plan (AP-088)**

Mr. Rose-Coss,

This report summarizes the results of the quarterly sampling and quarterly pumping events for monitor well MW-1R which occurred during 2019 for the E. M. Elliott Tank Battery (Site). The Site is located in Lea County, Section 22, Township 22 South, Range 37 East, approximately 4 miles south of Eunice, New Mexico. The GPS coordinates for the Site are 32.38266°N, 103.15517°W. Prior to OXY USA, Inc. (OXY) acquiring the property in March 2018, the facility was operated by Plains Exploration and Production (PXP), Pogo Producing Company (Pogo), and Latigo Petroleum, Inc. (Latigo). The Site location is shown on **Figures 1 and 2**.

FACILITY BACKGROUND

As part of a due diligence assessment for Pogo, the Site was inspected and soil sampling was performed to investigate areas where visual evidence of historic spills was observed.

Four impacted areas were investigated north and south of the facility and inside the containment dike. One auger hole and one borehole were installed in an area measuring 25' x 30'. One auger hole was placed in the second impacted area measuring 10' x 10'. Two auger holes were placed in a third impacted area measuring 6' x 15'. The auger holes could only be advanced to depths of 1.0'-1.5' below ground surface (bgs) due to the presence of a dense caliche layer. Elevated chloride concentrations were detected in three of the six auger hole samples analyzed. Total Petroleum Hydrocarbon (TPH) concentrations were above the New Mexico Oil Conservation Division (OCD) Recommended Remedial Action Level (RRAL) of 5,000 milligrams per kilogram all six of the auger holes. Auger holes AH-1, AH-4 and AH-6 had TPH concentrations above the RRAL on the 0-1.0' sample, which declined to below the RRAL in the 1.0'-1.5' samples. Access was restricted inside the dike; therefore, the borehole BH-1 was drilled just outside the dike, close to AH-1, AH-2 and AH-5. In BH-1, the TPH concentrations declined to below the RRAL in the 30'-32' sample.

Tetra Tech

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Based on the results, borehole BH-1 was converted to a temporary 2-inch monitor well. Groundwater was encountered at approximately 70 feet below the top of casing (TOC). On September 25, 2006 and May 15, 2007, the temporary well was purged and sampled for analyses of chlorides and benzene, toluene, ethylbenzene and xylenes (BTEX). Chloride concentrations exceeded New Mexico Water Quality Control Commission (NMWQCC) standard of 250 milligrams per liter (mg/L) while BTEX concentrations were below the NMWQCC standards.

In accordance with NM Rule 116 the OCD Environmental Bureau director was notified in writing on June 25, 2007 of groundwater impact at the Site. The OCD responded with a request for a Stage 1 Abatement Plan for the facility.

On July 9, 2008, a Stage 1 Abatement Plan addressing the soil and groundwater impacts at the Site was submitted to the OCD-Santa Fe, New Mexico office. The Stage 1 Abatement Plan concluded that chloride concentrations in groundwater had not been delineated and that no BTEX constituents exceeded NMWQCC standards. No receptors were found in the vicinity of the Site. Quarterly groundwater gauging and sampling was proposed to commence during the third quarter of 2008. Additional monitor wells were proposed to delineate the chloride impacts to groundwater.

On September 12, 2011, monitor wells MW-2 and MW-3 were installed down gradient and up gradient, respectively, from monitor well MW-1. Monitor wells MW-4 and MW-5 were installed on September 7, 2016 for cross gradient delineation. On September 8, 2016, monitor well MW-1R was drilled as a replacement for monitor well MW-1. Monitor well MW-1R was constructed as a 4-inch diameter well for potential use as a groundwater recovery well. Monitor well MW-1 was plugged on September 12, 2016.

GAUGING AND MONITOR WELL SAMPLING

All five monitor wells at the site (MW-1R, MW-2, MW-3, MW-4, and MW-5) were sampled on a quarterly basis during 2019. During each groundwater sampling event, the monitor wells were gauged with an electronic water level meter. The gauging data is summarized in **Table 1**. No Phase Separated Hydrocarbons (PSH) were measured in any of the monitor wells. The hydraulic gradient was generally to the southeast during each of the sampling events. Potentiometric gradient maps for each of the quarterly sampling events in 2019 are included as **Figures 4** through **7**.

During each groundwater sampling event, the monitor wells were purged to remove approximately three well casing volumes of water using disposable rope or twine with a new polyethylene bailer for each well. The sample bottles were filled directly from the bailers. The sample bottles were placed on ice and shipped under proper chain-of-custody control to ALS Laboratories of Houston, Texas for analysis of BTEX by EPA Method SW8260 and chlorides by EPA Method E300.

Analytical results indicate that BTEX concentrations were below method detection limits during all of the sampling events. All BTEX method detection limits values were below New Mexico Water Quality Control Commission (NMWQCC) standards.



Chloride analytical results for monitor wells MW-2, MW-3 and MW-5 were below NMWQCC standards during each of the four 2019 sampling events. The chloride analytical results for monitor well MW-1R and MW-4 exceeded the NMWQCC standards during each of the four 2019 sampling events. Chloride concentrations in monitor well MW-4 ranged from 933 mg/L on August 7, 2019 to 1,010 mg/L on February 8, 2019 which are within the range of previously detected concentrations.

Chloride concentrations in monitor well MW-1R ranged from 608 mg/L on February 8, 2019 to 9,020 mg/L on May 8, 2019. The 608 mg/L chloride concentration detected in monitor well MW-1R on February 8, 2019 was approximately an order of magnitude lower than any concentrations detected in that well before and after that date. The water level elevation in monitor well MW-1R was higher on February 8, 2019 than on the other three 2019 sampling dates. While there appears to be some indications of an inverse correlation between groundwater elevation and chloride concentrations in monitor well MW-1R, the 608 mg/L concentration is lower than would be expected solely based on an increased groundwater elevation and therefore appears to be an anomalous value. All other chloride concentrations detected in monitor well MW-1R during 2019 were within the range of previously detected concentrations.

Graphs of chloride concentrations versus groundwater elevations for each of the monitor wells are included in Appendix A. The graphs for monitor wells MW-2, MW-3, and MW-5 indicate generally stable chloride concentration trends. For the two monitor wells with chloride concentrations exceeding the NMWQCC standards, monitor well MW-4 exhibits a generally stable trend during the reporting period and monitor well MW-1R has a generally decreasing trend following the maximum detected chloride concentration of 12,500 mg/L on November 20, 2017 falling to a concentration of 7,870 mg/L on November 15, 2019.

Chloride concentration maps for the four quarterly monitoring events in 2019 are included as **Figures 8** through **11**. The groundwater analytical data is summarized in **Table 2**. Copies of the laboratory analytical reports are included in **Appendix B**.

QUARTERLY PUMPING OF MONITOR WELL MW-1R

Monitor well MW-1R was pumped dry on a quarterly basis during 2019 to recover chloride impacted groundwater. A total of approximately 64 gallons of groundwater was recovered in 2019. All recovered groundwater is temporarily stored onsite in 55-gallon drums prior to being transported and disposed of offsite. Quarterly pumping of monitor well MW-1R appears to be decreasing the chloride concentrations in this well as is indicated in the graph of chloride concentrations over time for monitor well MW-1R which is included in **Appendix A**.



CONCLUSIONS

1. Analytical results indicate that BTEX concentrations were below method detection limits each of the quarterly sampling events in 2019. All BTEX method detection limits values were below NMWQCC standards.
2. PSH has never been measured in any monitor wells at this Site.
3. Chloride analytical results for monitor wells MW-2, MW-3 and MW-5 were below NMWQCC standards during each of the 2019 sampling events.
4. The graphs for monitor wells MW-2, MW-3, and MW-5 indicate generally stable chloride concentration trends.
5. The chloride analytical results for monitor well MW-1R and MW-4 exceeded the NMWQCC standards during each of the four 2019 sampling events.
6. Monitor well MW-4 chloride concentrations exhibit a generally stable trend during the reporting period. Monitor well MW-1R chloride concentrations exhibit a generally decreasing trend following the maximum detected chloride concentration of 12,500 mg/L on November 20, 2017, falling to a concentration of 7,870 mg/L on November 15, 2019.
7. Quarterly pumping of monitor well MW-1R appears to be decreasing the chloride concentrations in this well

PROPOSED 2020 GROUNDWATER MONITORING PROGRAM

Continued quarterly groundwater monitoring and quarterly pumping of monitor well MW-1R is proposed for 2020.

If you have any questions or comments concerning this report, please feel free to contact Ray Cheatham at (713) 203-0852.

Respectfully submitted,
Tetra Tech, Inc.

Reviewed by:

A handwritten signature in black ink, appearing to read 'R Cheatham'.

A handwritten signature in blue ink, appearing to read 'G W Pope'.

Ray Cheatham
Principal Geologist

Greg W. Pope
Principal Geologist

Attachments:

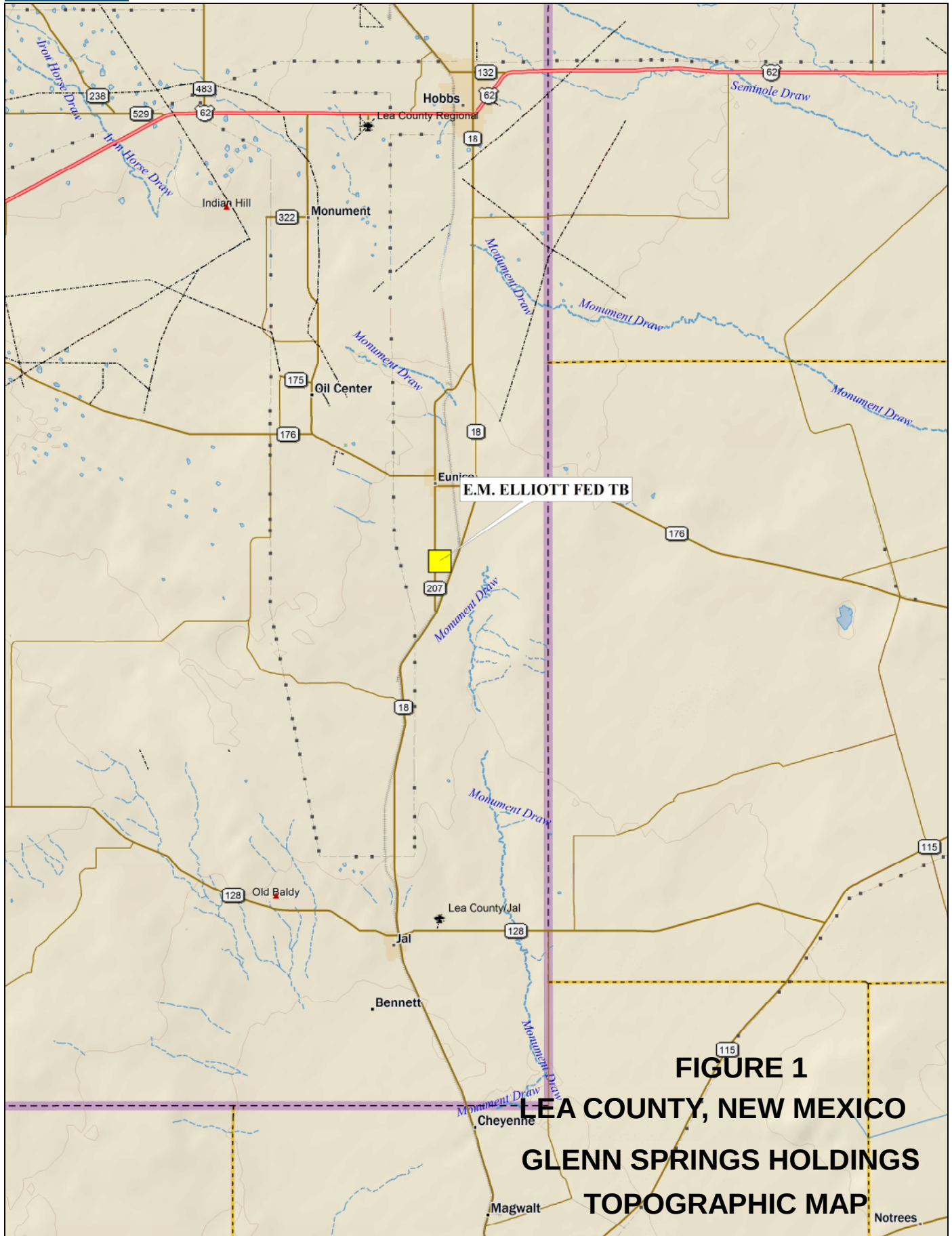
Figures
Tables
Appendix A – Graphs
Appendix B – Lab Reports

cc: Dusty Wilson – Glenn Springs Holdings, Inc.

Figures



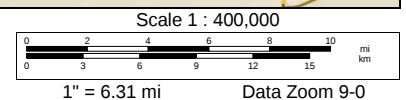
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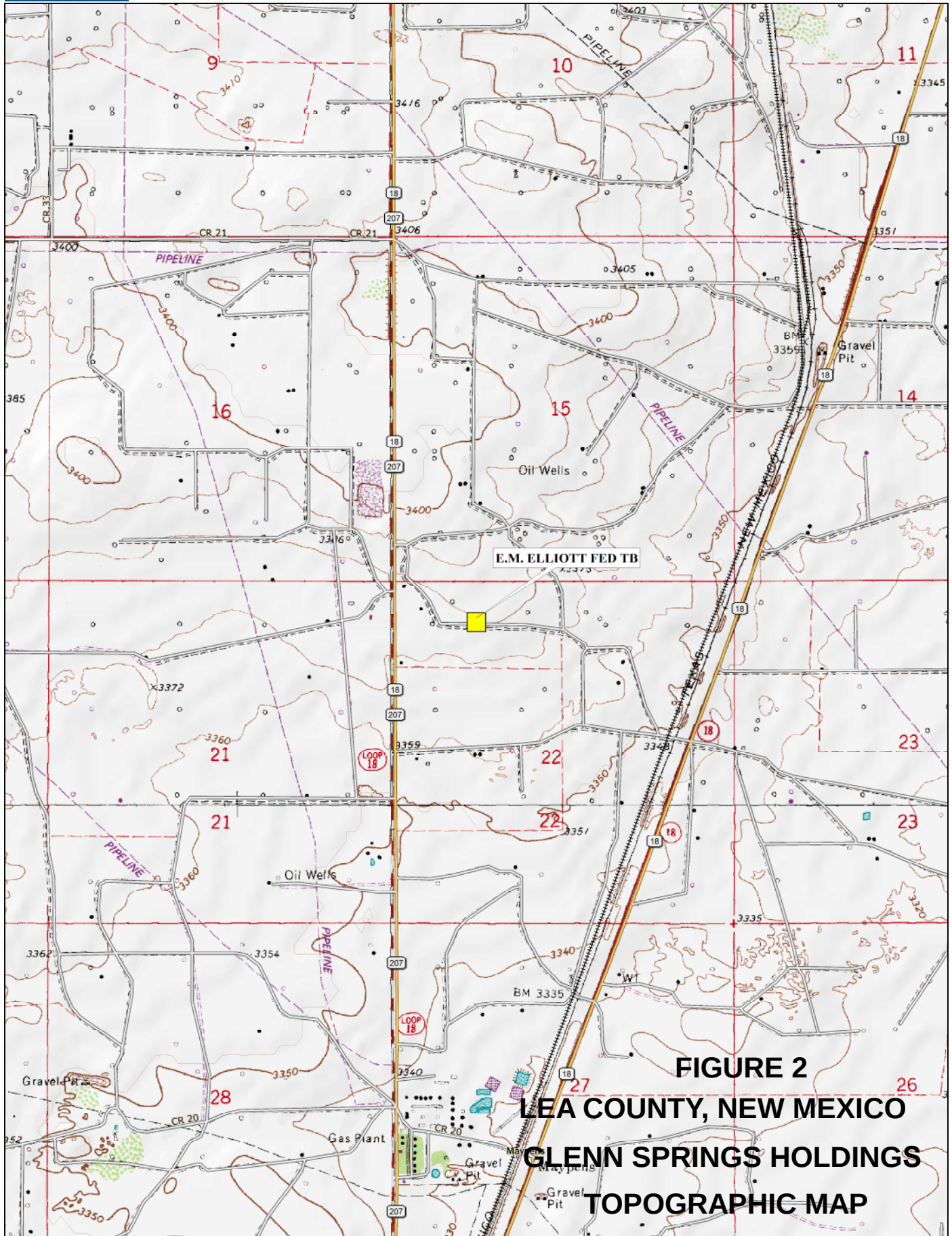
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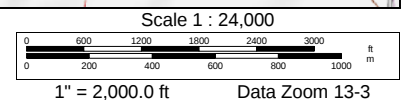
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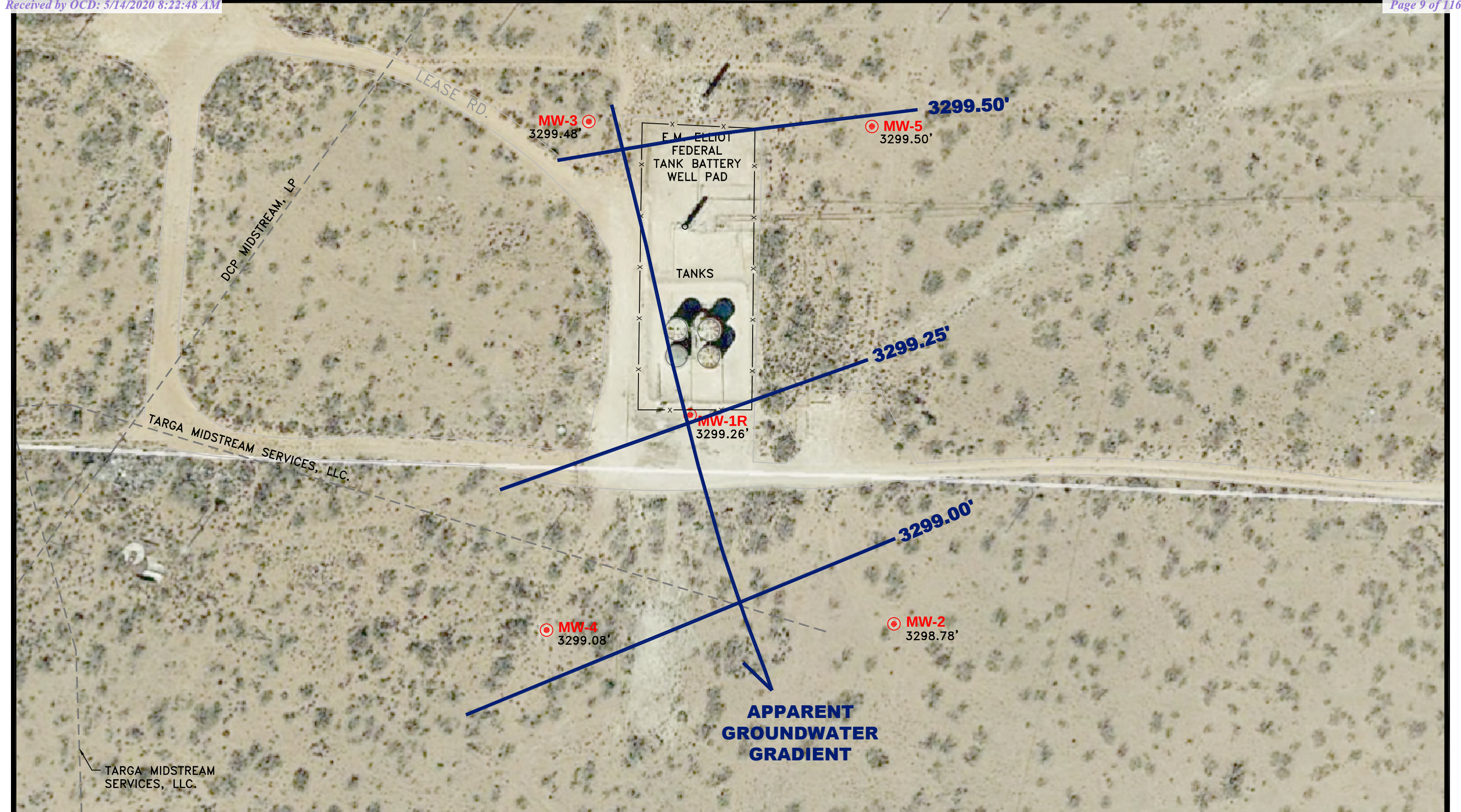
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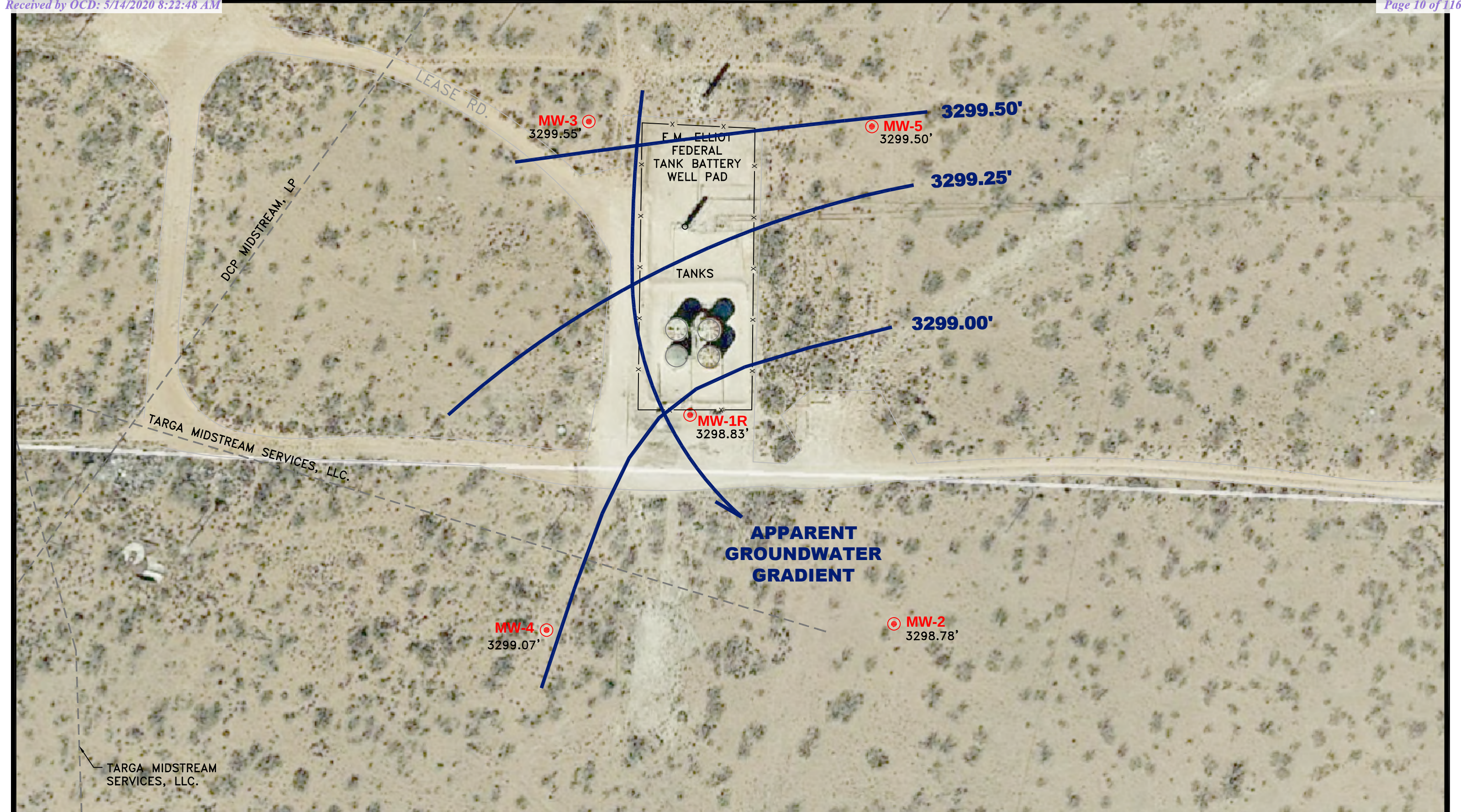




LEGEND = MONITOR WELL LOCATIONS = SOIL BORING LOCATIONS = BURIED PIPELINE = FENCE LINE	NOTES: 1. ALL ELEVATIONS IN FEET AMSL SOURCE: "NEW MEXICO" 32°22'57.62"N, 103° 9'18.62"W. GOOGLE EARTH. FEBRUARY 20, 2019, APRIL 20, 2020	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE 3 SITE MAP E.M. ELLIOT TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-02091</td><td>REV.</td></tr><tr><td>Date: 4/20/20</td><td></td></tr><tr><td colspan="2">File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY</td></tr></table>	Project: 212C-MD-02091	REV.	Date: 4/20/20		File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	
Project: 212C-MD-02091	REV.									
Date: 4/20/20										
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LEGEND ○ = MONITOR WELL LOCATIONS ⊕ = SOIL BORING LOCATIONS - - - = BURIED PIPELINE — = FENCE LINE — = CONTOUR INTERVALS .25 FT. → = APPARENT GROUND WATER GRADIENT DIRECTIONAL	NOTES: 1. ALL ELEVATIONS IN FEET AMSL SOURCE: "NEW MEXICO" 32°22'57.62"N, 103° 9'18.62"W. GOOGLE EARTH. FEBRUARY 20, 2019, APRIL 20, 2020	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE 4 GROUNDWATER GRADIENT MAP FEBRUARY 08, 2019 E.M. ELLIOT TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-02091</td><td>REV.</td></tr><tr><td>Date: 4/20/20</td><td></td></tr><tr><td colspan="2">File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY</td></tr></table>	Project: 212C-MD-02091	REV.	Date: 4/20/20		File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	
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LEGEND

- ⊙ = MONITOR WELL LOCATIONS
- ⊕ = SOIL BORING LOCATIONS
- - - = BURIED PIPELINE
- = FENCE LINE
- = CONTOUR INTERVALS .25 FT.
- = APPARENT GROUND WATER GRADIENT DIRECTIONAL

NOTES:

1. ALL ELEVATIONS IN FEET AMSL

SOURCE: "NEW MEXICO" 32°22'57.82"N, 103° 9'18.62"W. GOOGLE EARTH.
FEBRUARY 20, 2019, APRIL 20, 2020

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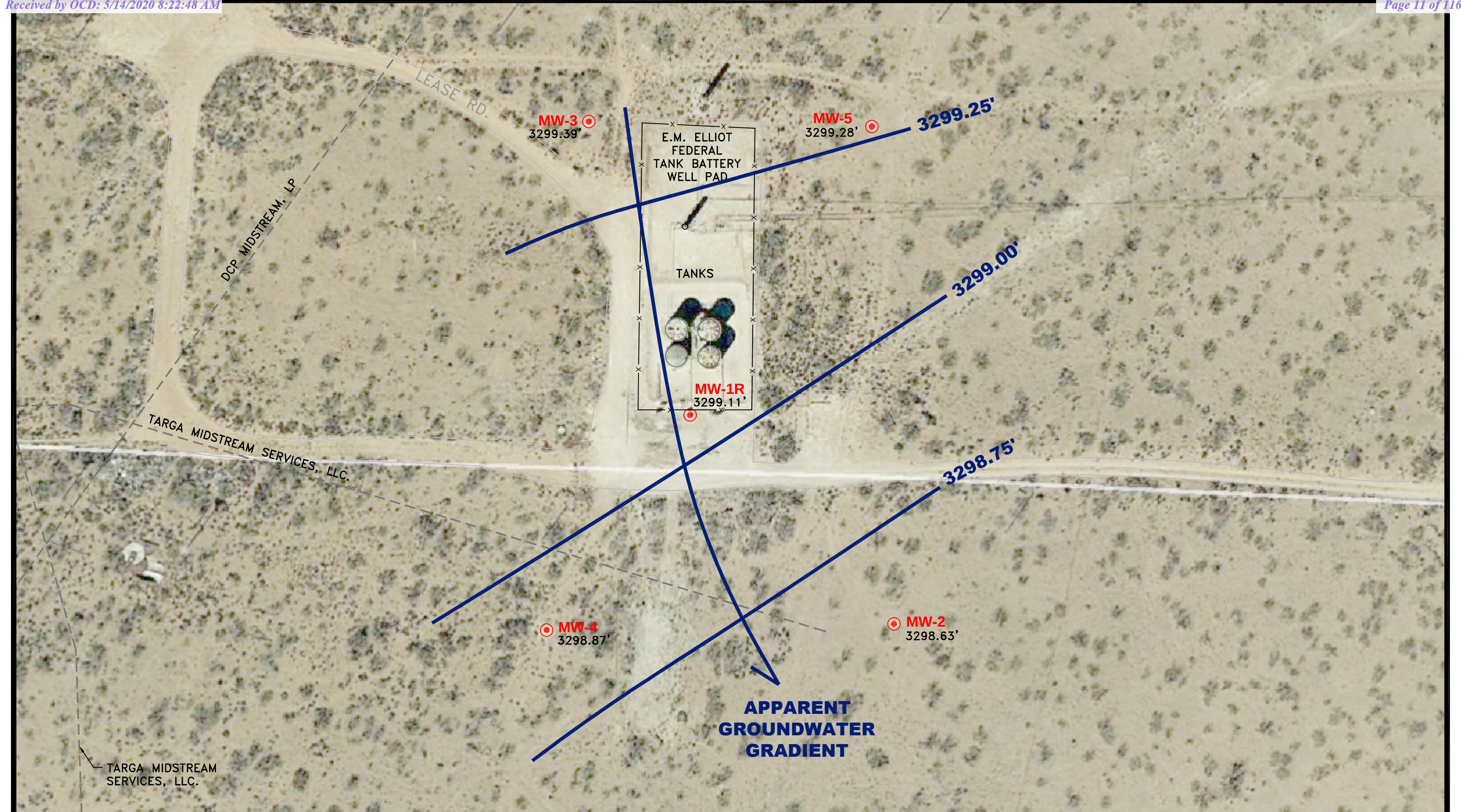
NORTH

0 20 60ft

FIGURE 5

GROUNDWATER GRADIENT MAP
MAY 08, 2019
E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02091	REV.
Date: 4/20/20	
File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	



LEGEND

- = MONITOR WELL LOCATIONS
- ⊕ = SOIL BORING LOCATIONS
- - - = BURIED PIPELINE
- - - = FENCE LINE
- ~ = CONTOUR INTERVALS .25 FT.
- = APPARENT GROUND WATER GRADIENT DIRECTIONAL

NOTES:

1. ALL ELEVATIONS IN FEET AMSL

SOURCE: "NEW MEXICO" 32°22'57.62"N, 103° 9'18.62"W. GOOGLE EARTH.
FEBRUARY 20, 2019, APRIL 20, 2020

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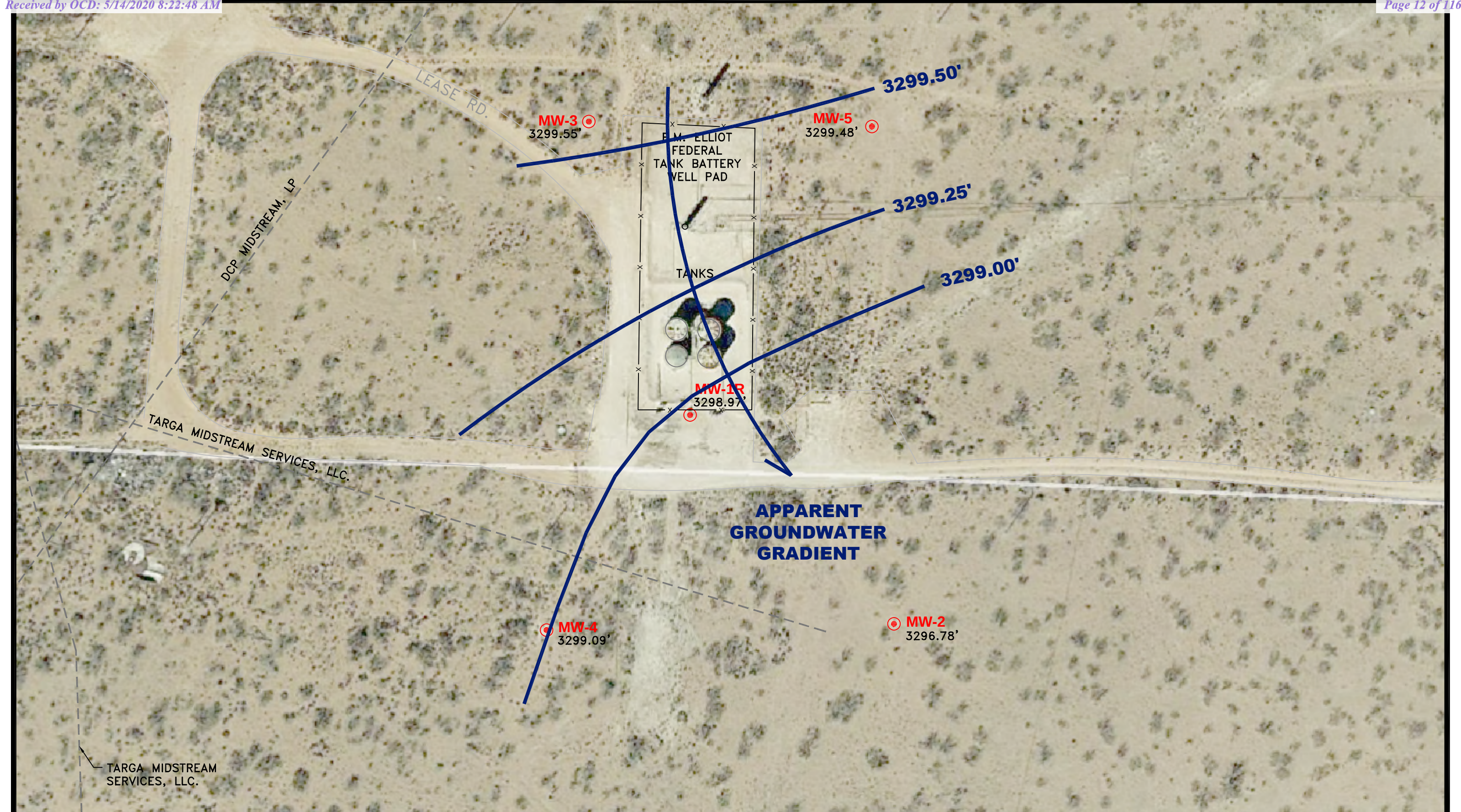
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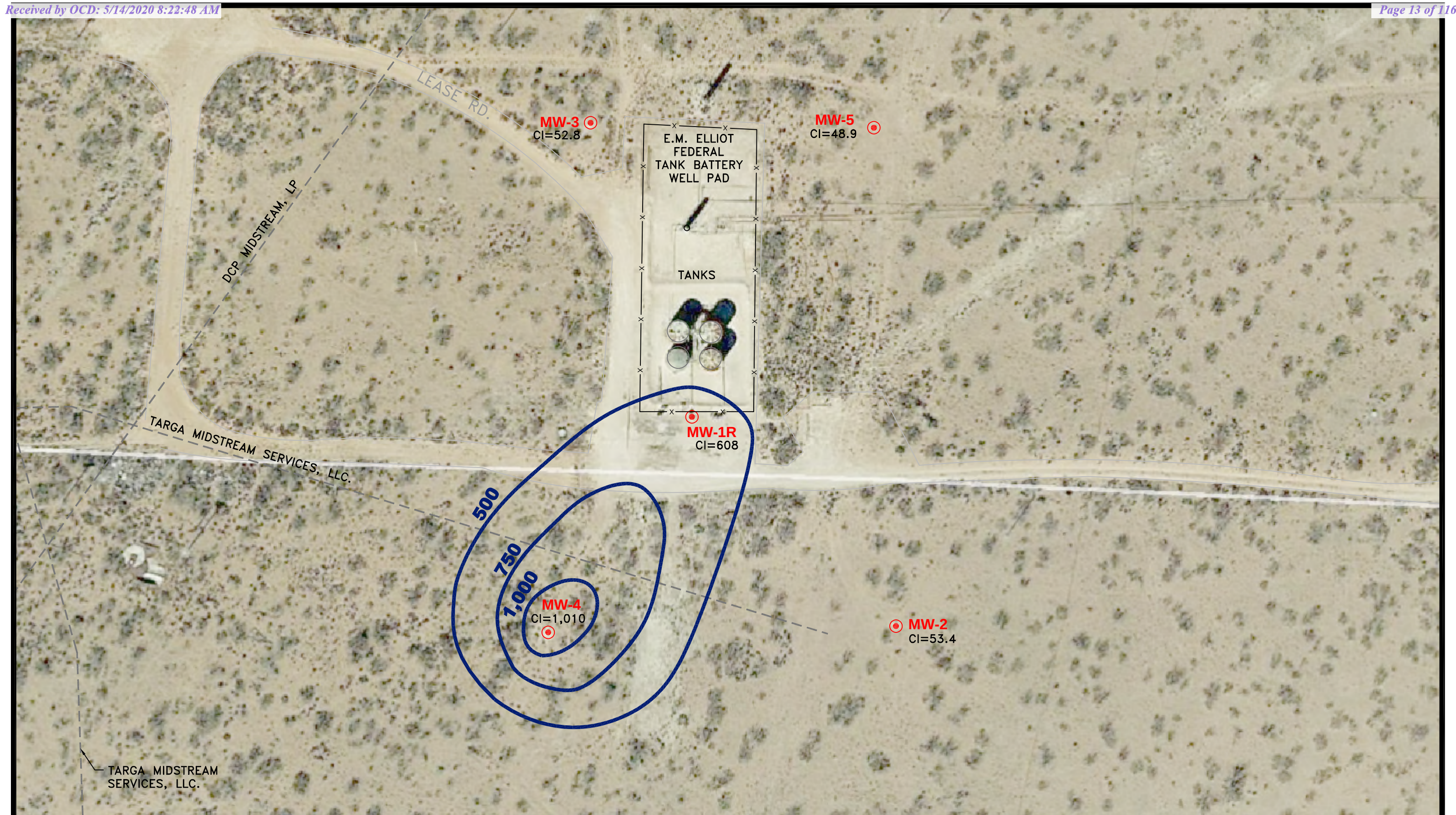
FIGURE 6

GROUNDWATER GRADIENT MAP
AUGUST 07, 2019
E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02091	REV.
Date: 4/20/20	
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LEGEND ⊙ = MONITOR WELL LOCATIONS ⊕ = SOIL BORING LOCATIONS - - - = BURIED PIPELINE — = FENCE LINE — = CONTOUR INTERVALS .25 FT. → = APPARENT GROUND WATER GRADIENT DIRECTIONAL	NOTES: 1. ALL ELEVATIONS IN FEET AMSL SOURCE: "NEW MEXICO" 32°22'57.62"N, 103° 9'18.62"W. GOOGLE EARTH. FEBRUARY 20, 2019, APRIL 20, 2020	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE 7 GROUNDWATER GRADIENT MAP NOVEMBER 15, 2019 E.M. ELLIOT TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-02091</td><td>REV.</td></tr><tr><td>Date: 4/20/20</td><td></td></tr><tr><td colspan="2">File: H:\Acad Data\GLENN SPRINGS\2019\010688 E.M. ELLIOT TANK BATTERY</td></tr></table>	Project: 212C-MD-02091	REV.	Date: 4/20/20		File: H:\Acad Data\GLENN SPRINGS\2019\010688 E.M. ELLIOT TANK BATTERY	
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LEGEND

- ⊙ = MONITOR WELL LOCATIONS
- ⊕ = SOIL BORING LOCATIONS
- - - = BURIED PIPELINE
- = FENCE LINE
- 500 = CHLORIDE CONCENTRATION mg/L
- 48.9 - 1,010 = CHLORIDE CONCENTRATION LEVEL

NOTES:

1. ALL ELEVATIONS IN FEET AMSL
2. CONCENTRATIONS IN MILLIGRAMS

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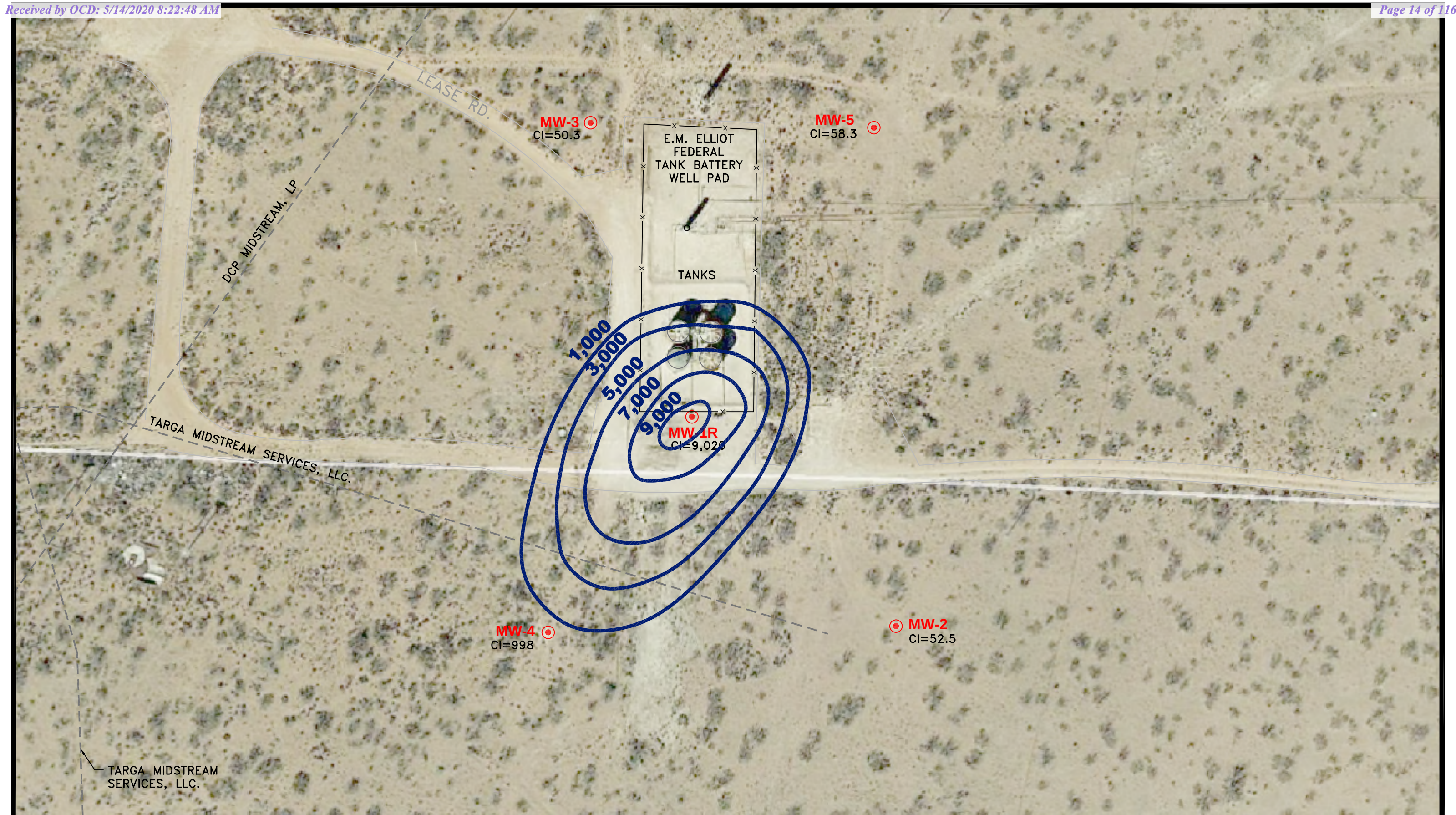
NORTH

0 20 60ft

FIGURE 8

CHLORIDE CONCENTRATION MAP
FEBRUARY 08, 2019
E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02091	REV.
Date: 4/20/20	
File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	



LEGEND

- ⊙ = MONITOR WELL LOCATIONS
- ⊕ = SOIL BORING LOCATIONS
- - - = BURIED PIPELINE
- = FENCE LINE
- 1000 = CHLORIDE CONCENTRATION mg/L
- 50.3 - 9,020 = CHLORIDE CONCENTRATION LEVEL

NOTES:

- ALL ELEVATIONS IN FEET AMSL
- CONCENTRATIONS IN MILLIGRAMS

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(432) 682-4559

GLENN SPRINGS HOLDINGS

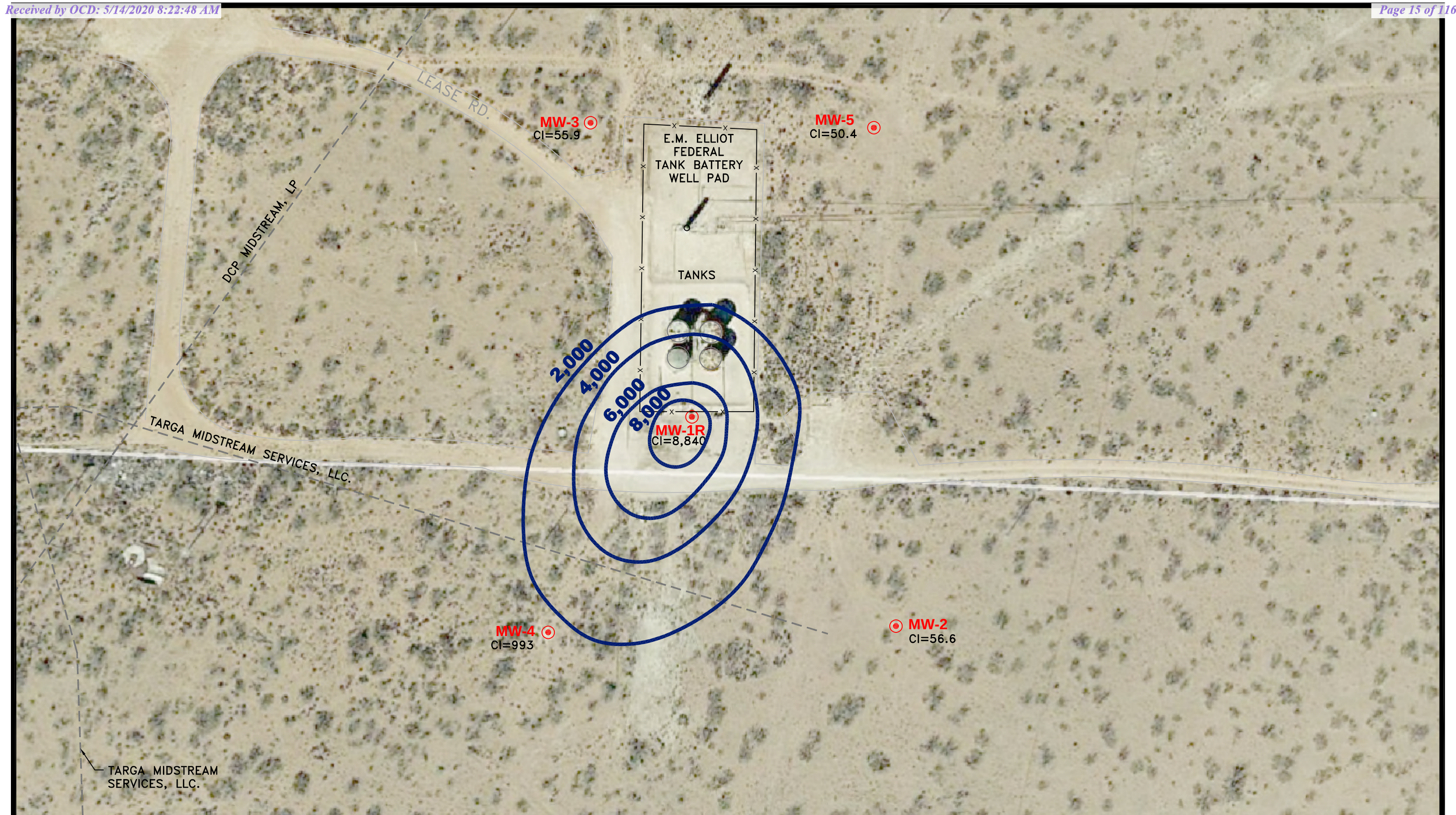
NORTH

0 20 60ft

FIGURE 9

CHLORIDE CONCENTRATION MAP
MAY 08, 2019
E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02091	REV.
Date: 4/20/20	
File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	



LEGEND

- ⊙ = MONITOR WELL LOCATIONS
- ⊕ = SOIL BORING LOCATIONS
- - - = BURIED PIPELINE
- = FENCE LINE
- 2000 = CHLORIDE CONCENTRATION mg/L
- 50.4- 8,840 = CHLORIDE CONCENTRATION LEVEL

NOTES:

1. ALL ELEVATIONS IN FEET AMSL
2. CONCENTRATIONS IN MILLIGRAMS

RESULTS IN mg/L

SOURCE: "NEW MEXICO" 32°22'57.82"N, 103° 9'18.62"W. GOOGLE EARTH. FEBRUARY 20, 2019, APRIL 20, 2020

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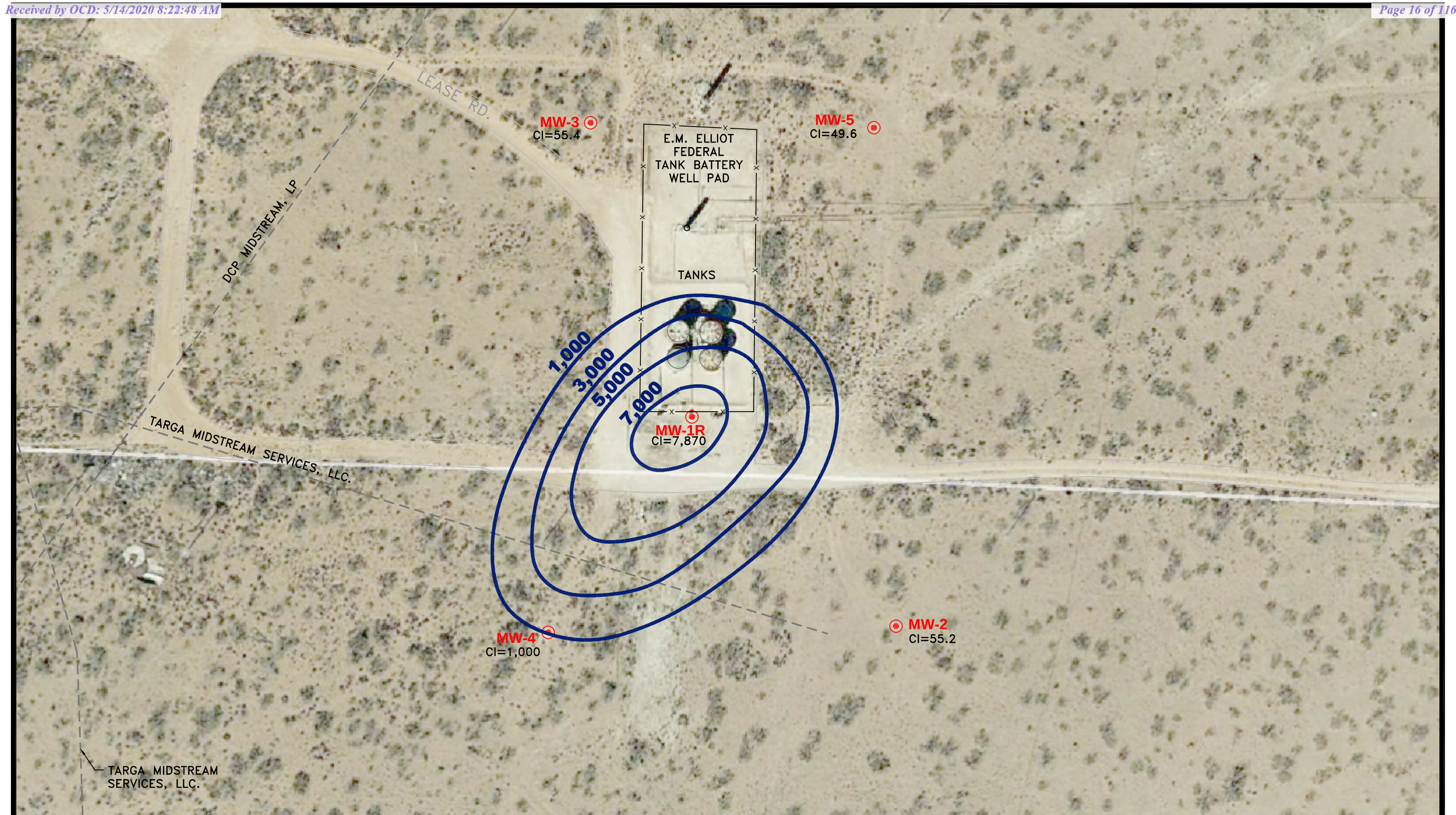
GLENN SPRINGS HOLDINGS

NORTH

FIGURE 10

CHLORIDE CONCENTRATION MAP
AUGUST 07, 2019
E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO

Project: 212C-MD-02091	REV.
Date: 4/20/20	
File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	



LEGEND ⊙ = MONITOR WELL LOCATIONS ⊕ = SOIL BORING LOCATIONS - - - = BURIED PIPELINE — = FENCE LINE 1,000 = CHLORIDE CONCENTRATION mg/L 49.6- 7,870 = CHLORIDE CONCENTRATION LEVEL	NOTES: 1. ALL ELEVATIONS IN FEET AMSL 2. CONCENTRATIONS IN MILLIGRAMS SOURCE: "NEW MEXICO" 32°22'57.62"N, 103° 9'18.62"W. GOOGLE EARTH. FEBRUARY 20, 2019, APRIL 20, 2020	TETRA TECH 901 W. WALL STREET STE. 100 MIDLAND, TEXAS (432) 682-4559	GLENN SPRINGS HOLDINGS NORTH 0 20 60ft	FIGURE 11 CHLORIDE CONCENTRATION MAP NOVEMBER 15, 2019 E.M. ELLIOT TANK BATTERY LEA COUNTY, NEW MEXICO <table border="1"><tr><td>Project: 212C-MD-02091</td><td>REV.</td></tr><tr><td>Date: 4/20/20</td><td></td></tr><tr><td colspan="2">File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY</td></tr></table>	Project: 212C-MD-02091	REV.	Date: 4/20/20		File: H:\Acad Data\GLENN SPRINGS\2019\01688 E.M. ELLIOT TANK BATTERY	
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Date: 4/20/20										
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Tables

TABLE 1
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-1	10/23/08	3,378.91	85.60	-	80.88	-	3,298.03
	12/10/08	-	85.60	-	80.85	-	3,298.06
	03/11/09	-	85.60	-	80.85	-	3,298.06
	06/22/09	-	85.60	-	80.84	-	3,298.07
	09/15/09	-	85.66	-	80.84	-	3,298.03
	12/09/09	-	85.60	-	80.88	-	3,298.03
	03/10/10	-	85.60	-	80.85	-	3,298.06
	06/07/10	-	85.60	-	80.77	-	3,298.14
	09/13/10	-	85.60	-	81.64	-	3,297.27
	12/13/10	-	85.60	-	81.78	-	3,297.13
	03/10/11	-	85.60	-	81.82	-	3,297.09
	06/13/11	-	85.60	-	80.77	-	3,298.14
	09/20/11	-	85.60	-	80.82	-	3,298.09
	12/12/11	-	85.60	-	80.95	-	3,297.96
	04/05/12	-	85.60	-	80.84	-	3,298.07
	06/19/12	-	85.60	-	80.83	-	3,298.08
	09/24/12	-	85.60	-	80.91	-	3,298.00
	12/14/12	-	85.60	-	80.82	-	3,298.09
	03/27/13	-	86.80	-	80.83	-	3,298.08
	06/07/13	-	-	-	80.82	-	3,298.09
	09/19/13	-	-	-	80.81	-	3,298.10
	12/26/13	-	86.83	-	80.86	-	3,298.05
	03/27/14	-	85.60	-	80.93	-	3,297.98
	06/17/14	-	85.60	-	80.83	-	3,298.08
	09/26/14	-	85.60	-	80.88	-	3,298.03
	12/15/14	-	85.59	-	80.99	-	3,297.92
	03/24/15	-	85.66	-	80.91	-	3,298.00
	06/18/15	-	85.66	-	80.96	-	3,297.95
	08/06/15	-	-	-	80.90	-	3,298.01
	08/12/15	-	-	-	80.87	-	3,298.04
	08/18/15	-	-	-	80.84	-	3,298.07
	09/08/15	-	85.66	-	80.82	-	3,298.09
	12/18/15	-	85.72	-	80.86	-	3,298.05
	03/14/16	-	-	-	80.82	-	3,298.09
	06/28/16	-	85.66	-	80.83	-	3,298.08
	09/12/16	Well Plugged					
MW-1R	09/09/16	3,380.41		-	79.32	-	3,301.09
	09/15/16	-		-	82.04	-	3,298.37
	09/29/16	-	92.40	-	81.34	-	3,299.07
	10/12/16	-		-	81.30	-	3,299.11
	12/06/16	-		-	81.32	-	3,299.09
	03/01/17	-	92.40	-	81.39	-	3,299.02
	08/29/17	-	-	-	81.29	-	3,299.12
	11/20/17	-	-	-	81.66	-	3,298.75
	02/20/18	-	90.38	-	81.28	-	3,299.13
	05/24/18	-	-	-	81.12	-	3,299.29
	08/24/18	-	-	-	81.70	-	3,298.71

TABLE 1
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-1R Cont.	11/15/18	-	90.45	-	81.65	-	3,298.76
	02/08/19	-	90.42	-	81.15	-	3,299.26
	05/08/19	-	90.25	-	81.58	-	3,298.83
	08/07/19	-	90.40	-	81.3	-	3,299.11
	11/15/19	-	90.30	-	81.44	-	3,298.97
MW-2	09/20/11	3,378.00	102.00	-	82.97	-	3,295.03
	12/12/11	-	102.00	-	80.44	-	3,297.56
	04/05/12	-	102.00	-	80.27	-	3,297.73
	06/19/12	-	102.00	-	80.32	-	3,297.68
	09/24/12	-	102.00	-	80.31	-	3,297.69
	12/14/12	-	102.00	-	80.34	-	3,297.66
	03/27/13	-	98.35	-	80.33	-	3,297.67
	06/07/13	-	-	-	80.35	-	3,297.65
	09/19/13	-	-	-	80.34	-	3,297.66
	12/26/13	-	-	-	80.35	-	3,297.65
	03/27/14	-	97.16	-	80.39	-	3,297.61
	06/17/14	-	97.16	-	80.29	-	3,297.71
	09/30/14	-	97.16	-	80.37	-	3,297.63
	12/15/14	-	97.16	-	80.44	-	3,297.56
	03/24/15	-	97.05	-	80.37	-	3,297.63
	06/18/15	-	97.16	-	80.36	-	3,297.64
	08/06/15	-	-	-	80.37	-	3,297.63
	09/08/15	-	97.16	-	80.33	-	3,297.67
	12/18/15	-	97.12	-	80.35	-	3,297.65
	03/14/16	-	-	-	80.30	-	3,297.70
	06/28/16	-	97.16	-	80.32	-	3,297.68
	09/09/16	3,378.98	-	-	80.27	-	3,298.71
	09/29/16	-	97.16	-	80.34	-	3,298.64
	10/12/16	-	-	-	80.30	-	3,298.68
	12/06/16	-	-	-	80.34	-	3,298.64
	03/01/17	-	98.35	-	80.32	-	3,298.66
	08/29/17	-	98.35	-	80.29	-	3,298.69
	11/20/17	-	-	-	80.43	-	3,298.55
	02/20/18	-	97.10	-	80.29	-	3,298.69
	05/24/18	-	-	-	80.17	-	3,298.81
	08/24/18	-	-	-	80.42	-	3,298.56
	11/15/18	-	97.19	-	80.38	-	3,298.60
	02/08/19	-	96.83	-	80.20	-	3,298.78
	05/08/19	-	97.00	-	80.20	-	3,298.78
	08/07/19	-	97.25	-	80.35	-	3,298.63
	11/15/19	-	96.95	-	80.20	-	3,298.78
MW-3	09/20/11	3,381.40	99.00	-	80.33	-	3,301.07
	12/12/11	-	99.00	-	83.11	-	3,298.29
	04/05/12	-	99.00	-	82.98	-	3,298.42
	06/19/12	-	99.00	-	82.99	-	3,298.41
	09/24/12	-	99.00	-	82.99	-	3,298.41
	12/14/12	-	99.00	-	82.99	-	3,298.41

TABLE 1
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery
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Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-3 Cont.	03/27/13	-	99.00	-	83.04	-	3,298.36
	06/07/13	-	-	-	83.05	-	3,298.35
	09/19/13	-	-	-	83.02	-	3,298.38
	12/26/13	-	-	-	83.09	-	3,298.31
	03/27/14	-	100.95	-	83.12	-	3,298.28
	06/17/14	-	100.95	-	83.06	-	3,298.34
	09/30/14	-	100.95	-	83.09	-	3,298.31
	12/15/14	-	100.94	-	83.18	-	3,298.22
	03/24/15	-	100.94	-	83.08	-	3,298.32
	06/18/15	-	100.94	-	83.05	-	3,298.35
	08/06/15	-	-	-	83.04	-	3,298.36
	09/08/15	-	100.94	-	83.02	-	3,298.38
	12/18/15	-	104.94	-	83.04	-	3,298.36
	03/14/16	-	-	-	82.99	-	3,298.41
	06/28/16	-	100.97	-	82.98	-	3,298.42
	09/09/16	3,382.36	-	-	83.00	-	3,299.36
	09/29/16	-	100.97	-	83.01	-	3,299.35
	10/12/16	-	-	-	82.98	-	3,299.38
	12/06/16	-	-	-	82.99	-	3,299.37
	03/01/17	-	-	-	83.00	-	3,299.36
	08/29/17	-	-	-	82.98	-	3,299.38
	11/20/17	-	-	-	83.05	-	3,299.31
	02/20/18	-	100.96	-	82.93	-	3,299.43
	05/24/18	-	-	-	82.83	-	3,299.53
	08/24/18	-	-	-	83.02	-	3,299.34
	11/15/18	-	101.09	-	82.96	-	3,299.40
	02/08/19	-	100.94	-	82.88	-	3,299.48
	05/08/19	-	100.95	-	82.81	-	3,299.55
	08/07/19	-	101.15	-	82.97	-	3,299.39
	11/15/19	-	100.90	-	82.81	-	3,299.55
MW-4	09/08/16	3,377.80	-	-	78.90	-	3,298.90
	09/09/16	-	-	-	78.96	-	3,298.84
	09/15/16	-	-	-	78.95	-	3,298.85
	09/29/16	-	94.40	-	78.95	-	3,298.85
	10/12/16	-	-	-	78.92	-	3,298.88
	12/06/16	-	-	-	78.91	-	3,298.89
	03/01/17	-	93.35	-	78.89	-	3,298.91
	08/29/17	-	93.35	-	78.91	-	3,298.89
	11/20/17	-	-	-	78.96	-	3,298.84
	02/20/18	-	93.72	-	78.82	-	3,298.98
	05/24/18	-	-	-	78.75	-	3,299.05
	08/24/18	-	-	-	78.98	-	3,298.82
	11/15/18	-	93.72	-	78.87	-	3,298.93
	02/08/19	-	93.55	-	78.72	-	3,299.08
	05/08/19	-	93.55	-	78.73	-	3,299.07
	08/07/19	-	93.80	-	78.93	-	3,298.87
	11/15/19	-	94.60	-	78.71	-	3,299.09

TABLE 1
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Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-5	09/08/16	3,384.53	-	-	85.15	-	3,299.38
	09/09/16	-	-	-	85.19	-	3,299.34
	09/15/16	-	-	-	85.15	-	3,299.38
	09/29/16	-	101.94	-	85.16	-	3,299.37
	10/12/16	-	-	-	85.14	-	3,299.39
	12/06/16	-	-	-	85.18	-	3,299.35
	03/01/17	-	101.49	-	85.20	-	3,299.33
	08/29/17	-	101.49	-	85.16	-	3,299.37
	11/20/17	-	-	-	85.24	-	3,299.29
	02/20/18	-	101.95	-	85.12	-	3,299.41
	05/24/18	-	-	-	85.03	-	3,299.50
	08/24/18	-	-	-	85.25	-	3,299.28
	11/15/18	-	-	-	85.19	-	3,299.34
	02/08/19	-	101.95	-	85.03	-	3,299.50
	05/08/19	-	101.03	-	85.03	-	3,299.50
	08/07/19	-	101.20	-	85.25	-	3,299.28
	11/15/19	-	100.77	-	85.05	-	3,299.48

(-) No data (TOC) Top of casing

9/7/16 MW-4 and MW-5 drilled

9/8/16 MW-1R drilled

9/12/16 MW-1 plugged

10/12/16 John West Survey Company surveyed all five monitor wells on Site

TABLE 2
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.005 mg/L	1.0 mg/L	0.7 mg/L	0.62 mg/L		250.0 mg/L*
MW-1 Dup	09/25/06	-	0.0013	<0.001	<0.001	0.0065	0.0078	8,260
	05/15/07	-	<0.001	<0.001	<0.001	0.0015	0.0015	2,020
	10/23/08	-	<0.005	<0.005	<0.005	<0.005	<0.005	8,040
	12/11/08	-	<0.005	<0.005	<0.005	<0.015	<0.015	9,590
	03/11/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,670
	03/11/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	8,950
	06/22/09	-	0.00049	<0.001	<0.001	<0.003	<0.003	9,600
	09/15/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,500
	12/09/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,880
	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	8,630
	06/07/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,650
	09/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,520
	12/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	9,580
	03/10/11	-	<0.001	<0.001	<0.001	<0.003	<0.003	16,800
	06/13/11	-	0.00024 J	<0.00030	<0.00020	<0.00023	0.00024 J	11,000
	09/20/11	-	0.00027 J	<0.00030	<0.00020	<0.00023	0.00027 J	4,400
	12/13/11	-	0.00025 J	<0.00030	<0.00020	<0.00023	0.00025 J	9,600
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	10,300
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	8,030
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,100
	11/27/12	-	-	-	-	-	-	9,110
	11/27/12	-	-	-	-	-	-	8,310
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	7,230
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	8,820
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	9,320
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	9,620
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	8,380
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	7,630
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,100
MW-1 Cont.	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	13,400
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	10,700
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,000
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,000
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,500
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	11,500
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	10,000

TABLE 2
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Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.005 mg/L	1.0 mg/L	0.7 mg/L	0.62 mg/L		250.0 mg/L*
Dup	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	9,590
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	9,270
Dup	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	10,700
	09/12/16		Plugged					
MW-1R	09/29/16	-	<0.005	0.00095 J	<0.005	<0.015	0.00095 J	7,210
Dup	09/29/16	-	<0.005	0.0010 J	<0.005	<0.015	0.0010 J	7,040
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	8,810
Dup	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	9,380
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	8,740
Dup	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	9,250
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	8,710
Dup	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	8,690
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	8,600
Dup	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	8,860
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	12,500
Dup	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,330
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,380
Dup	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,340
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	8,490
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,810
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,160
Dup	08/24/18	-	<0.0050	<0.0050	<0.0050	0.00081 J	0.00081 J	9,300
MW-1R Cont.	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7,850
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	608
	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	9,020
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	8,840
	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7,870
MW-2	09/20/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	51
	12/13/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	160
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	62.2
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	60.7
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	63.3
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	50.7
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	109
	06/07/13	-	NA	-	-	-	-	NA
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	59.9

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Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.005 mg/L	1.0 mg/L	0.7 mg/L	0.62 mg/L		250.0 mg/L*
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	53.5
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	63.1
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	63.1
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	58.0
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	54.4
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	55.0
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	55.0
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	54.2
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	53.6
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	57.6
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	53.4
	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.2
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	54.3
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	53.2
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	49.4
MW-2 Cont.	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	50.4
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	57.5
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	56.0
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	58.6
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	54.7
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	55.3
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	53.4
	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	52.5
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	56.6
	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	55.2
MW-3	09/20/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	270
	12/13/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	52
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.7
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	52.6
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	54.9
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	46.0
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	97.5
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	47.0
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	54.3
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.3
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	57.0

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E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.005 mg/L	1.0 mg/L	0.7 mg/L	0.62 mg/L		250.0 mg/L*
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	60.2
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	53.2
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.1
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	56.9
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	52.4
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.8
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	51.0
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	55.9
MW-3 Cont.	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	53.4
	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	49.0
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	54.6
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	55.1
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	48.4
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	49.3
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	55.5
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	52.7
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	55.9
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	56.7
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	56.4
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	52.8
	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	50.3
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	55.9
	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	55.4
MW-4	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	696
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	1,010
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	1,080
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	923
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	905
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,270
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,110
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	985
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	877
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,090
Dup	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,100
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,010
Dup	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,020

TABLE 2
Glenn Springs Holdings, Inc.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			0.005 mg/L	1.0 mg/L	0.7 mg/L	0.62 mg/L		250.0 mg/L*
	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	998
Dup	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,030
MW-4 Cont.	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	933
Dup	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	931
	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,000
Dup	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1,010
MW-5	09/29/16	-	<0.005	0.0011 J	<0.005	<0.015	0.0011 J	61.8
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	51.6
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	51.2
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	45.8
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	47.2
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	52.7
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	51.3
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	54.1
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	51.0
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	52.2
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	48.9
	05/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	58.3
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	50.4
	11/15/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	49.6

(-) Not Analyzed

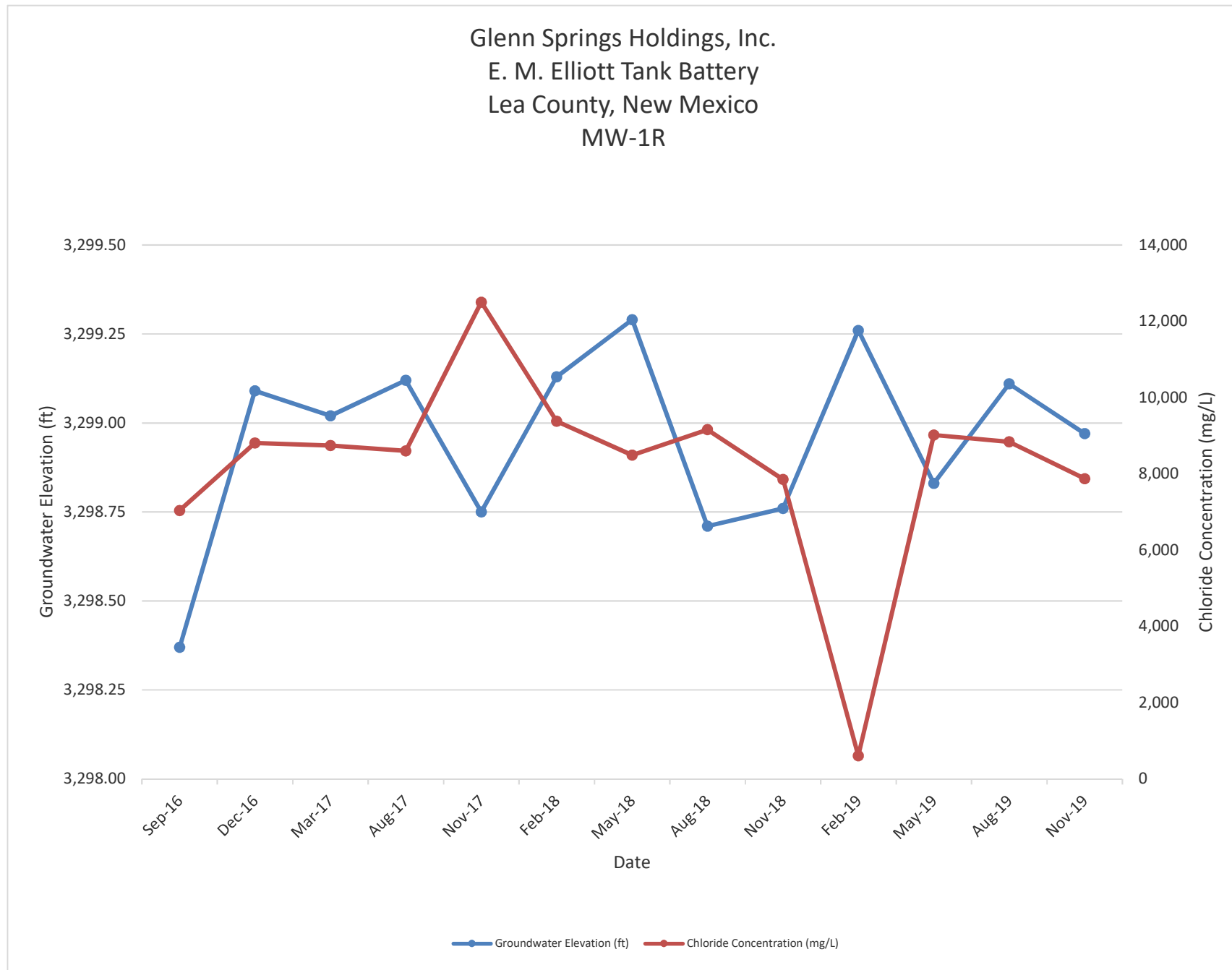
NA - Not Analyzed, sample vials were broken during delivery to the laboratory

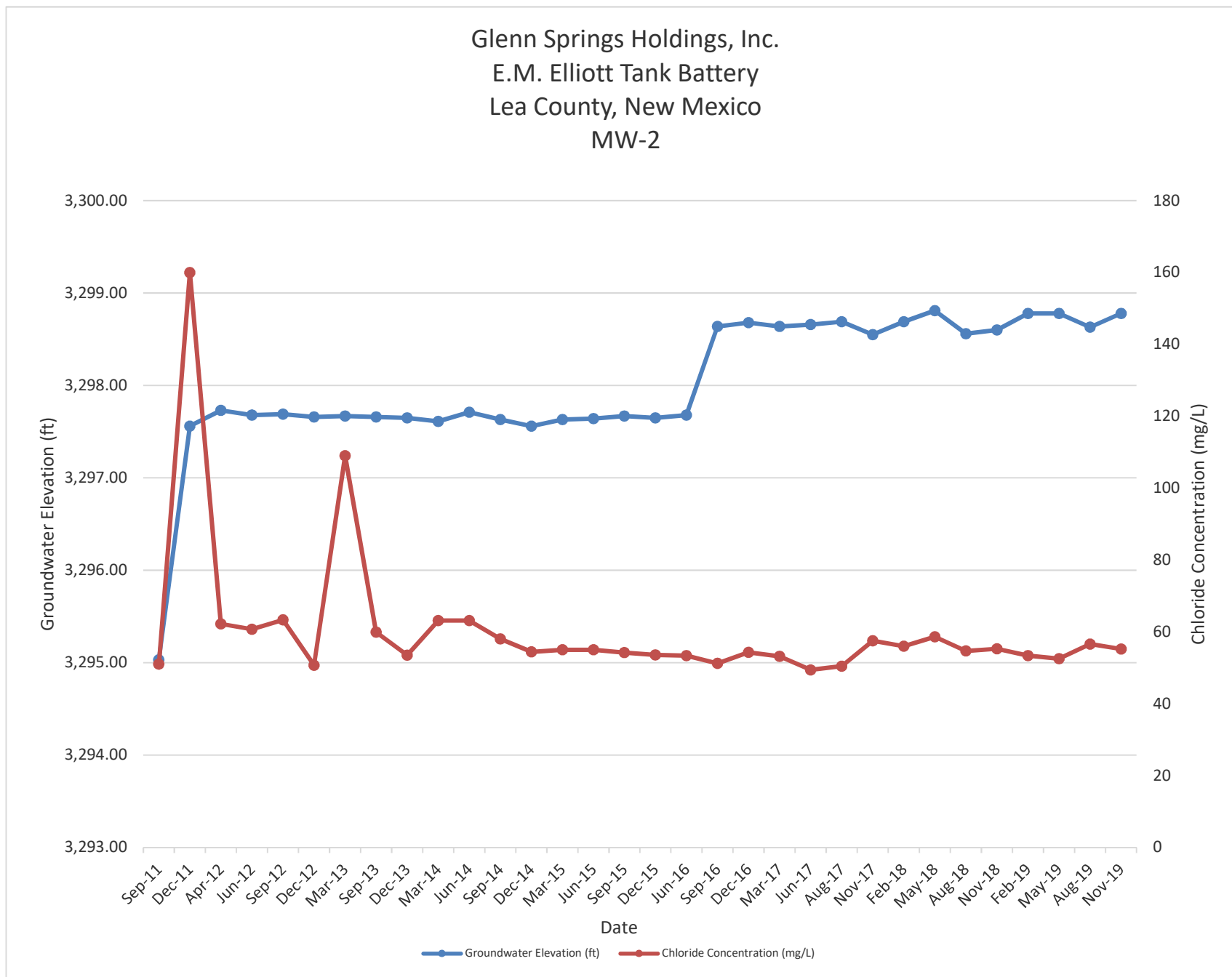
* - Other Standard for Domestic Water Supply

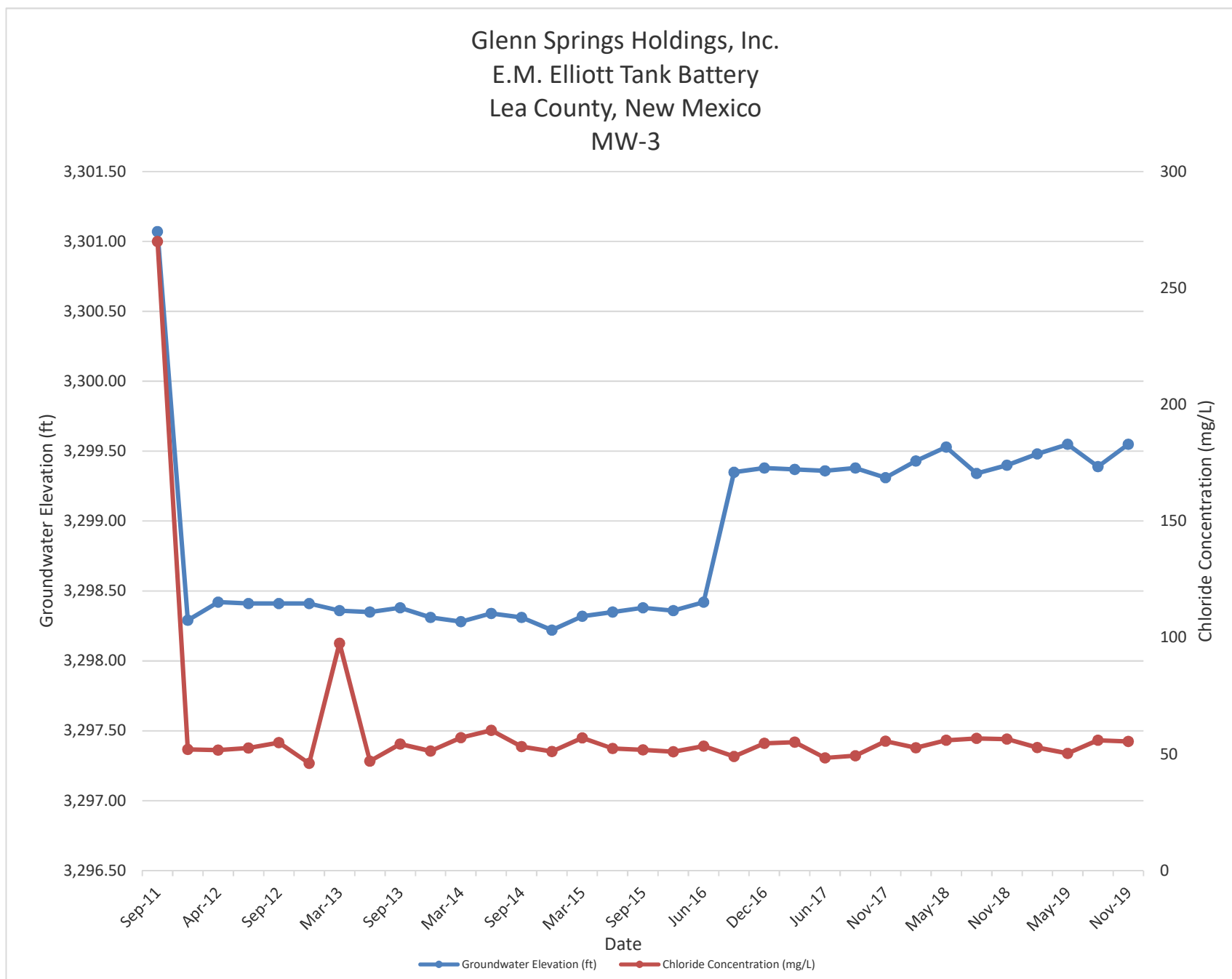
(J) Analyte detected below quantitation limit

MW-4 and MW-5 drilled on 9/7/16, MW-1R drilled on 09/08/16

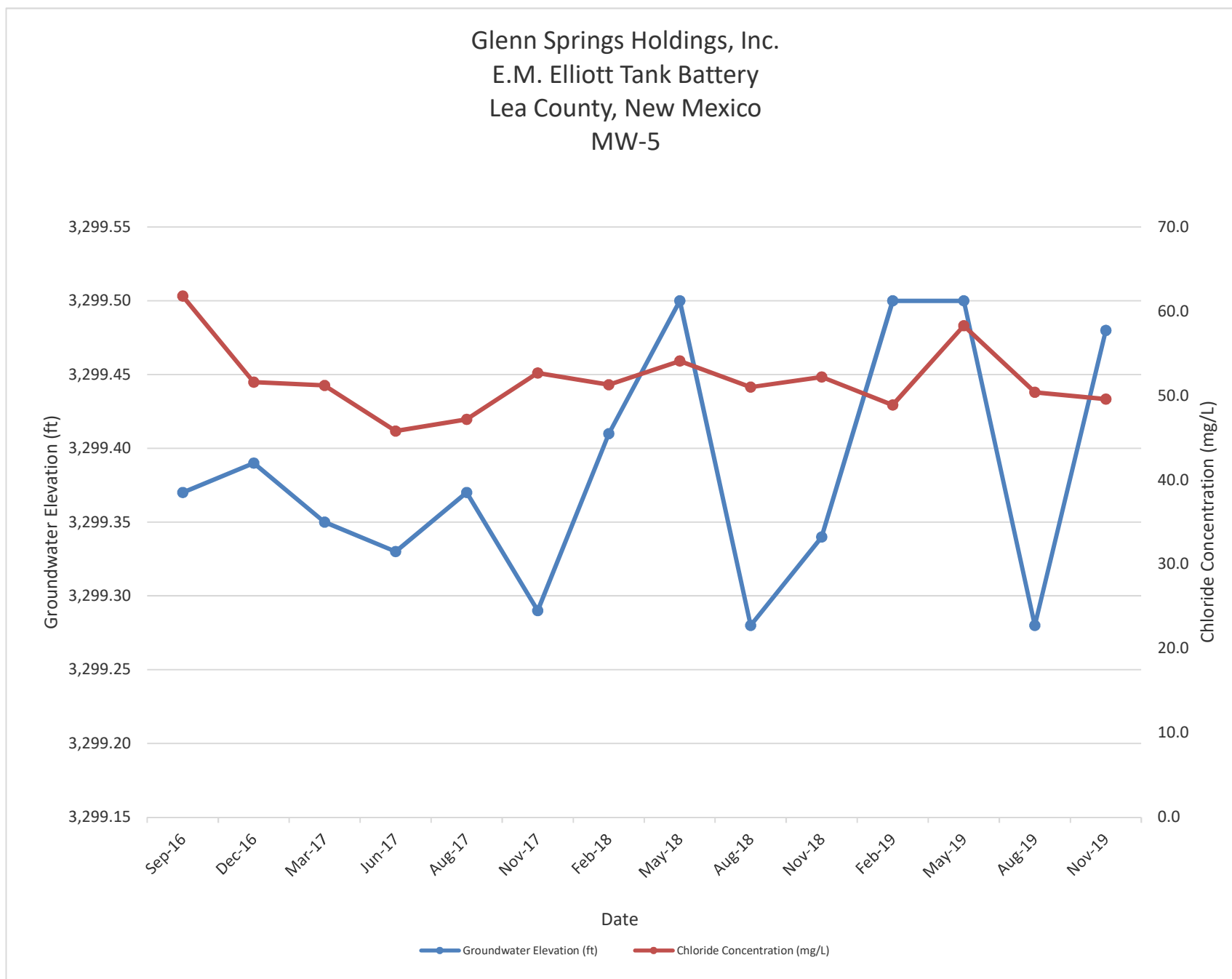
Appendix A – Graphs











Appendix B – Lab Reports



10450 Stancliff Rd. Suite 210
Houston, TX 77099
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February 26, 2019

Todd Wells
Glenn Springs Holdings, Inc.
PO Box 2148

Houston, TX 77252-2148

Work Order: **HS19020614**

Laboratory Results for: **55626DM GSHI PXP Elliot E.M. Federal TB**

Dear Todd,

ALS Environmental received 7 sample(s) on Feb 12, 2019 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: DAYNA.FISHER
Dane J. Wacasey

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19020614

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19020614-01	MW-1R	Groundwater		08-Feb-2019 13:10	12-Feb-2019 08:26	☐
HS19020614-02	MW-2	Groundwater		08-Feb-2019 12:50	12-Feb-2019 08:26	☐
HS19020614-03	MW-3	Groundwater		08-Feb-2019 12:25	12-Feb-2019 08:26	☐
HS19020614-04	MW-4	Groundwater		08-Feb-2019 12:40	12-Feb-2019 08:26	☐
HS19020614-05	MW-5	Groundwater		08-Feb-2019 12:20	12-Feb-2019 08:26	☐
HS19020614-06	DUP	Groundwater		08-Feb-2019 00:00	12-Feb-2019 08:26	☐
HS19020614-07	Trip Blank	Groundwater		08-Feb-2019 00:00	12-Feb-2019 08:26	☐

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19020614

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R332915

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

Batch ID: R332802

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

WetChemistry by Method E300

Batch ID: R333414

Sample ID: MW-3 (HS19020614-03MSD)

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-1R
 Collection Date: 08-Feb-2019 13:10

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Feb-2019 19:00
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:00
Toluene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:00
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:00
Surr: 1,2-Dichloroethane-d4	86.4			70-126	%REC	1	13-Feb-2019 19:00
Surr: 4-Bromofluorobenzene	97.1			82-124	%REC	1	13-Feb-2019 19:00
Surr: Dibromofluoromethane	92.5			77-123	%REC	1	13-Feb-2019 19:00
Surr: Toluene-d8	98.4			82-127	%REC	1	13-Feb-2019 19:00
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	608		10.0	25.0	mg/L	50	23-Feb-2019 22:14

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-2
 Collection Date: 08-Feb-2019 12:50

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Feb-2019 19:24
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:24
Toluene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:24
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:24
Surr: 1,2-Dichloroethane-d4	86.3			70-126	%REC	1	13-Feb-2019 19:24
Surr: 4-Bromofluorobenzene	97.4			82-124	%REC	1	13-Feb-2019 19:24
Surr: Dibromofluoromethane	93.4			77-123	%REC	1	13-Feb-2019 19:24
Surr: Toluene-d8	97.4			82-127	%REC	1	13-Feb-2019 19:24
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	53.4		0.200	0.500	mg/L	1	23-Feb-2019 22:28

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-3
 Collection Date: 08-Feb-2019 12:25

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Feb-2019 19:48
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:48
Toluene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:48
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Feb-2019 19:48
Surr: 1,2-Dichloroethane-d4	86.0			70-126	%REC	1	13-Feb-2019 19:48
Surr: 4-Bromofluorobenzene	99.4			82-124	%REC	1	13-Feb-2019 19:48
Surr: Dibromofluoromethane	92.6			77-123	%REC	1	13-Feb-2019 19:48
Surr: Toluene-d8	97.1			82-127	%REC	1	13-Feb-2019 19:48
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	52.8		0.200	0.500	mg/L	1	23-Feb-2019 23:41

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-4
 Collection Date: 08-Feb-2019 12:40

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Feb-2019 20:13
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 20:13
Toluene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 20:13
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Feb-2019 20:13
Surr: 1,2-Dichloroethane-d4	86.4			70-126	%REC	1	13-Feb-2019 20:13
Surr: 4-Bromofluorobenzene	98.2			82-124	%REC	1	13-Feb-2019 20:13
Surr: Dibromofluoromethane	93.2			77-123	%REC	1	13-Feb-2019 20:13
Surr: Toluene-d8	95.8			82-127	%REC	1	13-Feb-2019 20:13
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,010		10.0	25.0	mg/L	50	23-Feb-2019 22:43

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-5
 Collection Date: 08-Feb-2019 12:20

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Feb-2019 23:01
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 23:01
Toluene	U		0.00050	0.0050	mg/L	1	13-Feb-2019 23:01
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Feb-2019 23:01
Surr: 1,2-Dichloroethane-d4	86.9			70-126	%REC	1	13-Feb-2019 23:01
Surr: 4-Bromofluorobenzene	98.5			82-124	%REC	1	13-Feb-2019 23:01
Surr: Dibromofluoromethane	93.5			77-123	%REC	1	13-Feb-2019 23:01
Surr: Toluene-d8	95.8			82-127	%REC	1	13-Feb-2019 23:01
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	48.9		0.200	0.500	mg/L	1	23-Feb-2019 22:57

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: DUP
 Collection Date: 08-Feb-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-06
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	14-Feb-2019 00:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	14-Feb-2019 00:37
Toluene	U		0.00050	0.0050	mg/L	1	14-Feb-2019 00:37
Xylenes, Total	U		0.00050	0.0050	mg/L	1	14-Feb-2019 00:37
Surr: 1,2-Dichloroethane-d4	88.1			70-126	%REC	1	14-Feb-2019 00:37
Surr: 4-Bromofluorobenzene	98.5			82-124	%REC	1	14-Feb-2019 00:37
Surr: Dibromofluoromethane	94.1			77-123	%REC	1	14-Feb-2019 00:37
Surr: Toluene-d8	95.6			82-127	%REC	1	14-Feb-2019 00:37
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,020		10.0	25.0	mg/L	50	24-Feb-2019 00:25

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: Trip Blank
 Collection Date: 08-Feb-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19020614
 Lab ID:HS19020614-07
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	14-Feb-2019 01:01
Ethylbenzene	U		0.00050	0.0050	mg/L	1	14-Feb-2019 01:01
Toluene	U		0.00050	0.0050	mg/L	1	14-Feb-2019 01:01
Xylenes, Total	U		0.00050	0.0050	mg/L	1	14-Feb-2019 01:01
Surr: 1,2-Dichloroethane-d4	88.3			70-126	%REC	1	14-Feb-2019 01:01
Surr: 4-Bromofluorobenzene	96.5			82-124	%REC	1	14-Feb-2019 01:01
Surr: Dibromofluoromethane	93.4			77-123	%REC	1	14-Feb-2019 01:01
Surr: Toluene-d8	97.6			82-127	%REC	1	14-Feb-2019 01:01

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

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R332802	Test Name : VOLATILES - SW8260C		Matrix: Groundwater			
HS19020614-01	MW-1R	08 Feb 2019 13:10			13 Feb 2019 19:00	1
HS19020614-02	MW-2	08 Feb 2019 12:50			13 Feb 2019 19:24	1
HS19020614-03	MW-3	08 Feb 2019 12:25			13 Feb 2019 19:48	1
HS19020614-04	MW-4	08 Feb 2019 12:40			13 Feb 2019 20:13	1
Batch ID R332915	Test Name : VOLATILES - SW8260C		Matrix: Groundwater			
HS19020614-05	MW-5	08 Feb 2019 12:20			13 Feb 2019 23:01	1
HS19020614-06	DUP	08 Feb 2019 00:00			14 Feb 2019 00:37	1
HS19020614-07	Trip Blank	08 Feb 2019 00:00			14 Feb 2019 01:01	1
Batch ID R333414	Test Name : ANIONS BY E300.0		Matrix: Groundwater			
HS19020614-01	MW-1R	08 Feb 2019 13:10			23 Feb 2019 22:14	50
HS19020614-02	MW-2	08 Feb 2019 12:50			23 Feb 2019 22:28	1
HS19020614-03	MW-3	08 Feb 2019 12:25			23 Feb 2019 23:41	1
HS19020614-04	MW-4	08 Feb 2019 12:40			23 Feb 2019 22:43	50
HS19020614-05	MW-5	08 Feb 2019 12:20			23 Feb 2019 22:57	1
HS19020614-06	DUP	08 Feb 2019 00:00			24 Feb 2019 00:25	50

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R332802		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-190213	Units: ug/L		Analysis Date: 13-Feb-2019 10:51					
Client ID:	Run ID: VOA6_332802	SeqNo: 4948445		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	43.19	0	50	0	86.4	70 - 130			
Surr: 4-Bromofluorobenzene	48.34	0	50	0	96.7	82 - 115			
Surr: Dibromofluoromethane	46.41	0	50	0	92.8	73 - 126			
Surr: Toluene-d8	48.69	0	50	0	97.4	81 - 120			

LCS	Sample ID: VLCSW-190213	Units: ug/L		Analysis Date: 13-Feb-2019 10:02					
Client ID:	Run ID: VOA6_332802	SeqNo: 4948444		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	19.15	5.0	20	0	95.7	74 - 120			
Ethylbenzene	19.3	5.0	20	0	96.5	77 - 117			
Toluene	18.8	5.0	20	0	94.0	77 - 118			
Xylenes, Total	56.32	5.0	60	0	93.9	75 - 122			
Surr: 1,2-Dichloroethane-d4	43.42	0	50	0	86.8	70 - 130			
Surr: 4-Bromofluorobenzene	49.03	0	50	0	98.1	82 - 115			
Surr: Dibromofluoromethane	47.13	0	50	0	94.3	73 - 126			
Surr: Toluene-d8	48.54	0	50	0	97.1	81 - 120			

MS	Sample ID: HS19020361-12MS	Units: ug/L		Analysis Date: 13-Feb-2019 13:24					
Client ID:	Run ID: VOA6_332802	SeqNo: 4948448		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	20.59	5.0	20	0	103	70 - 127			
Ethylbenzene	20.96	5.0	20	0	105	70 - 124			
Toluene	20.02	5.0	20	0	100	70 - 123			
Xylenes, Total	59.67	5.0	60	0	99.5	70 - 130			
Surr: 1,2-Dichloroethane-d4	45.03	0	50	0	90.1	70 - 126			
Surr: 4-Bromofluorobenzene	49.08	0	50	0	98.2	82 - 124			
Surr: Dibromofluoromethane	48.69	0	50	0	97.4	77 - 123			
Surr: Toluene-d8	48.83	0	50	0	97.7	82 - 127			

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R332802		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS19020361-12MSD		Units: ug/L		Analysis Date: 13-Feb-2019 13:48			
Client ID:		Run ID: VOA6_332802		SeqNo: 4948449		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.66	5.0	20	0	93.3	70 - 127	20.59	9.84	20
Ethylbenzene	19.17	5.0	20	0	95.8	70 - 124	20.96	8.95	20
Toluene	18.23	5.0	20	0	91.2	70 - 123	20.02	9.37	20
Xylenes, Total	55.58	5.0	60	0	92.6	70 - 130	59.67	7.11	20
Surr: 1,2-Dichloroethane-d4	43.85	0	50	0	87.7	70 - 126	45.03	2.65	20
Surr: 4-Bromofluorobenzene	48.83	0	50	0	97.7	82 - 124	49.08	0.506	20
Surr: Dibromofluoromethane	47.5	0	50	0	95.0	77 - 123	48.69	2.47	20
Surr: Toluene-d8	48.45	0	50	0	96.9	82 - 127	48.83	0.789	20
The following samples were analyzed in this batch:									
HS19020614-01		HS19020614-02		HS19020614-03		HS19020614-04			

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R332915		Instrument: VOA6		Method: SW8260					
MBLK	Sample ID: VBLKW-190213	Units: ug/L		Analysis Date: 13-Feb-2019 22:37					
Client ID:	Run ID: VOA6_332915	SeqNo: 4951154		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	43.86	0	50	0	87.7	70 - 130			
Surr: 4-Bromofluorobenzene	48.31	0	50	0	96.6	82 - 115			
Surr: Dibromofluoromethane	47.34	0	50	0	94.7	73 - 126			
Surr: Toluene-d8	49.61	0	50	0	99.2	81 - 120			

LCS	Sample ID: VLCSW-190213	Units: ug/L		Analysis Date: 13-Feb-2019 21:49					
Client ID:	Run ID: VOA6_332915	SeqNo: 4951153		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.48	5.0	20	0	97.4	74 - 120			
Ethylbenzene	19.21	5.0	20	0	96.1	77 - 117			
Toluene	18.88	5.0	20	0	94.4	77 - 118			
Xylenes, Total	56.33	5.0	60	0	93.9	75 - 122			
Surr: 1,2-Dichloroethane-d4	43.66	0	50	0	87.3	70 - 130			
Surr: 4-Bromofluorobenzene	49.78	0	50	0	99.6	82 - 115			
Surr: Dibromofluoromethane	48.28	0	50	0	96.6	73 - 126			
Surr: Toluene-d8	48.2	0	50	0	96.4	81 - 120			

MS	Sample ID: HS19020614-05MS	Units: ug/L		Analysis Date: 13-Feb-2019 23:25					
Client ID: MW-5	Run ID: VOA6_332915	SeqNo: 4951156		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.31	5.0	20	0	102	70 - 127			
Ethylbenzene	20.42	5.0	20	0	102	70 - 124			
Toluene	19.82	5.0	20	0	99.1	70 - 123			
Xylenes, Total	59.35	5.0	60	0	98.9	70 - 130			
Surr: 1,2-Dichloroethane-d4	43.23	0	50	0	86.5	70 - 126			
Surr: 4-Bromofluorobenzene	49.91	0	50	0	99.8	82 - 124			
Surr: Dibromofluoromethane	47.94	0	50	0	95.9	77 - 123			
Surr: Toluene-d8	48	0	50	0	96.0	82 - 127			

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R332915		Instrument: VOA6		Method: SW8260					
MSD		Sample ID: HS19020614-05MSD		Units: ug/L		Analysis Date: 13-Feb-2019 23:49			
Client ID: MW-5		Run ID: VOA6_332915		SeqNo: 4951157		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.83	5.0	20	0	99.1	70 - 127	20.31	2.42	20
Ethylbenzene	20.63	5.0	20	0	103	70 - 124	20.42	1.02	20
Toluene	19.78	5.0	20	0	98.9	70 - 123	19.82	0.221	20
Xylenes, Total	59.23	5.0	60	0	98.7	70 - 130	59.35	0.214	20
Surr: 1,2-Dichloroethane-d4	43.28	0	50	0	86.6	70 - 126	43.23	0.112	20
Surr: 4-Bromofluorobenzene	48.34	0	50	0	96.7	82 - 124	49.91	3.21	20
Surr: Dibromofluoromethane	47.69	0	50	0	95.4	77 - 123	47.94	0.53	20
Surr: Toluene-d8	48.76	0	50	0	97.5	82 - 127	48	1.58	20
The following samples were analyzed in this batch:									
HS19020614-05		HS19020614-06		HS19020614-07					

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R333414		Instrument: ICS2100		Method: E300						
MBLK	Sample ID: WBLKW2-022319	Units: mg/L		Analysis Date: 23-Feb-2019 20:46						
Client ID:	Run ID: ICS2100_333414	SeqNo: 4962161		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
LCS	Sample ID: WLCBW2-022319	Units: mg/L		Analysis Date: 23-Feb-2019 21:01						
Client ID:	Run ID: ICS2100_333414	SeqNo: 4962162		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.37	0.500	20	0	96.8	90 - 110				
LCSD	Sample ID: WLCSDW2-022319	Units: mg/L		Analysis Date: 23-Feb-2019 21:16						
Client ID:	Run ID: ICS2100_333414	SeqNo: 4962163		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.22	0.500	20	0	96.1	90 - 110	19.37	0.788	20	
MS	Sample ID: HS19020617-03MS	Units: mg/L		Analysis Date: 24-Feb-2019 01:23						
Client ID:	Run ID: ICS2100_333414	SeqNo: 4962179		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	245.7	5.00	100	149.2	96.5	80 - 120				
MS	Sample ID: HS19020614-03MS	Units: mg/L		Analysis Date: 23-Feb-2019 23:56						
Client ID: MW-3	Run ID: ICS2100_333414	SeqNo: 4962173		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	61.03	0.500	10	52.82	82.1	80 - 120				O
MSD	Sample ID: HS19020617-03MSD	Units: mg/L		Analysis Date: 24-Feb-2019 01:37						
Client ID:	Run ID: ICS2100_333414	SeqNo: 4962180		PrepDate:		DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	245.5	5.00	100	149.2	96.3	80 - 120	245.7	0.0757	20	

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

QC BATCH REPORT

Batch ID: R333414		Instrument: ICS2100		Method: E300							
MSD		Sample ID: HS19020614-03MSD		Units: mg/L		Analysis Date: 24-Feb-2019 00:10					
Client ID: MW-3		Run ID: ICS2100_333414		SeqNo: 4962174		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	60.43	0.500	10	52.82	76.1	80 - 120	61.03	0.983	20	SO	
The following samples were analyzed in this batch:				HS19020614-01 HS19020614-05		HS19020614-02 HS19020614-06		HS19020614-03		HS19020614-04	

ALS Houston, US

Date: 26-Feb-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19020614

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

ALS Houston, US

Date: 26-Feb-19

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	ANAB L2231	20-Dec-2021
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019
North Carolina	624-2019	31-Dec-2019
California	2919, 2018-2019	30-Apr-2019
Maryland	343, 2018-2019	30-Jun-2019

ALS Houston, US

Date: 26-Feb-19

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **12-Feb-2019 08:26**

Work Order: HS19020614

Received by: **PMG**

Checklist completed by: Jared R. Mekan 12-Feb-2019
eSignature Date

Reviewed by: Dane J. Wacasey 17-Feb-2019
eSignature Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:198569
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	1.1c/1.4c UC/C IR25		
Cooler(s)/Kit(s):	44471		
Date/Time sample(s) sent to storage:	02/12/2019 18:25		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes: MW-4 collection time differs: COC = 12:40, Containers = 12:50. Sample logged in per COC.

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

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

Chain of Custody Form

Page 1 of 1

COC ID: 198569

Houston, TX
+1 281 530 5656Spring City, PA
+1 610 948 4903South Charleston, WV
+1 304 356 3168Middletown, PA
+1 717 944 5541Salt Lake City, UT
+1 801 266 7700York, PA
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis																
Purchase Order	4502201559 ENV 749-4	Project Name	GSHI PXP Elliot E.M. Federal TB	A	8260_W (BTEX)															
Work Order		Project Number	55626DM (ENV749A006)	B	300_W (Chloride)															
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX) Trip Blank															
Send Report To	Todd Wells	Invoice Attn	Accounts Payable	D																
Address	PO Box 2148	Address	PO Box 2148	E	HS19020614 Glenn Springs Holdings, Inc. 55626DM GSHI PXP Elliot E.M. Federal TB 															
				F																
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	G																
Phone		Phone		H																
Fax		Fax		I																
e-Mail Address	todd.wells@tetrattech.com	e-Mail Address		J																

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1R	2-8-19	1310	Groundwa	1,8	4	X	X									
2	MW-2	2-8-19	1250	Groundwa	1,8	4	X	X									
3	MW-3	2-8-19	1225	Groundwa	1,8	4	X	X									
4	MW-4	2-8-19	1240	Groundwa	1,8	4	X	X									
5	MW-5	2-8-19	1220	Groundwa	1,8	4	X	X									
6	DUP	2-8-19		Groundwa	1,8	4	X	X									
7	Trip Blank			Water	1,8	2			X								
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Preston Porter</i>		Shipment Method FedEx		Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:	
Relinquished by: <i>Preston Porter</i>	Date: 2-11-19	Time: 1500	Received by: <i>[Signature]</i>		Notes: [GSHI PXP Elliot EM Federal TB]				
Relinquished by:	Date:	Time:	Received by (Laboratory): 2/12/19 08:26 AM		Cooler ID: 00471				
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		Cooler Temp: 4.5				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035					QC Package: (Check One Box Below) ☒ Level II Std QC ☐ Level III Std QC/Raw Date ☐ Level IV SW846/CLP ☐ Other				

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

Copyright 2011 by ALS Environmental.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL Date: <u>12-12-19</u> Time: <u>1520</u> Name: <u>John Fick</u> Company: <u>Tetra Tech</u>		Seal Broken By: <u>SM</u> Date: <u>02/12/19</u>
	44471		

44471 FEB 12 2019



Must Deliver Next Business Day
Time and Temperature Sensitive!

44471

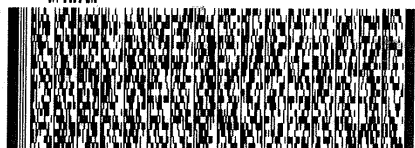
ORIGIN ID: SGRA (432) 682-4559
 TODD WELLS
 GSHI-TETRA TECH
 901 WEST WALL STREET
 STE 100
 MIDLAND, TX 79701
 UNITED STATES US

SHIP DATE: 04FEB19
 ACTWGT: 1.00 LB MAX
 CAD: 300130/CAFE3211
 DIMS: 19x16x13 IN

TO **CLIENT SERVICES**
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099

(281) 530-6656
 REF: GSHI PXP HILL - DW

RMA: 111111



FedEx Express



FedEx
 TRK# 4809 7830 6280
 0221

TUE - 12 FEB 10:30A
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US IAH



*3741120 02/11 565J2/0E3D/2340



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

May 21, 2019

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS19050571**

Laboratory Results for: **55626DM GSHI PXP Elliot E.M. Federal TB**

Dear James,

ALS Environmental received 7 sample(s) on May 09, 2019 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19050571

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19050571-01	MW-1R	Groundwater		08-May-2019 12:15	09-May-2019 09:00	☐
HS19050571-02	MW-2	Groundwater		08-May-2019 11:45	09-May-2019 09:00	☐
HS19050571-03	MW-3	Groundwater		08-May-2019 12:12	09-May-2019 09:00	☐
HS19050571-04	MW-4	Groundwater		08-May-2019 11:05	09-May-2019 09:00	☐
HS19050571-05	MW-5	Groundwater		08-May-2019 11:00	09-May-2019 09:00	☐
HS19050571-06	DUP	Groundwater		08-May-2019 00:00	09-May-2019 09:00	☐
HS19050571-07	Trip Blank	Water		08-May-2019 00:00	09-May-2019 09:00	☐

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19050571

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R338280

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

WetChemistry by Method E300

Batch ID: R338818

Sample ID: DUP (HS19050571-06MS)

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-1R
 Collection Date: 08-May-2019 12:15

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 15:03
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 15:03
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 15:03
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 15:03
Surr: 1,2-Dichloroethane-d4	98.3			70-126	%REC	1	12-May-2019 15:03
Surr: 4-Bromofluorobenzene	101			82-124	%REC	1	12-May-2019 15:03
Surr: Dibromofluoromethane	97.8			77-123	%REC	1	12-May-2019 15:03
Surr: Toluene-d8	102			82-127	%REC	1	12-May-2019 15:03
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	9,020		100	250	mg/L	500	20-May-2019 20:21

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-2
 Collection Date: 08-May-2019 11:45

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 17:57
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 17:57
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 17:57
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 17:57
Surr: 1,2-Dichloroethane-d4	96.2			70-126	%REC	1	12-May-2019 17:57
Surr: 4-Bromofluorobenzene	103			82-124	%REC	1	12-May-2019 17:57
Surr: Dibromofluoromethane	97.3			77-123	%REC	1	12-May-2019 17:57
Surr: Toluene-d8	103			82-127	%REC	1	12-May-2019 17:57
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	52.5		1.00	2.50	mg/L	5	20-May-2019 20:36

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-3
 Collection Date: 08-May-2019 12:12

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 18:21
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 18:21
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 18:21
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 18:21
Surr: 1,2-Dichloroethane-d4	95.6			70-126	%REC	1	12-May-2019 18:21
Surr: 4-Bromofluorobenzene	101			82-124	%REC	1	12-May-2019 18:21
Surr: Dibromofluoromethane	96.1			77-123	%REC	1	12-May-2019 18:21
Surr: Toluene-d8	101			82-127	%REC	1	12-May-2019 18:21
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	50.3		1.00	2.50	mg/L	5	20-May-2019 20:51

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-4
 Collection Date: 08-May-2019 11:05

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 18:45
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 18:45
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 18:45
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 18:45
Surr: 1,2-Dichloroethane-d4	95.8			70-126	%REC	1	12-May-2019 18:45
Surr: 4-Bromofluorobenzene	102			82-124	%REC	1	12-May-2019 18:45
Surr: Dibromofluoromethane	96.1			77-123	%REC	1	12-May-2019 18:45
Surr: Toluene-d8	101			82-127	%REC	1	12-May-2019 18:45
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	998		4.00	10.0	mg/L	20	20-May-2019 21:05

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-5
 Collection Date: 08-May-2019 11:00

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 19:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 19:09
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 19:09
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 19:09
Surr: 1,2-Dichloroethane-d4	95.7			70-126	%REC	1	12-May-2019 19:09
Surr: 4-Bromofluorobenzene	103			82-124	%REC	1	12-May-2019 19:09
Surr: Dibromofluoromethane	97.7			77-123	%REC	1	12-May-2019 19:09
Surr: Toluene-d8	102			82-127	%REC	1	12-May-2019 19:09
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	58.3		1.00	2.50	mg/L	5	20-May-2019 21:20

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: DUP
 Collection Date: 08-May-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-06
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 19:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 19:33
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 19:33
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 19:33
Surr: 1,2-Dichloroethane-d4	96.5			70-126	%REC	1	12-May-2019 19:33
Surr: 4-Bromofluorobenzene	98.9			82-124	%REC	1	12-May-2019 19:33
Surr: Dibromofluoromethane	98.4			77-123	%REC	1	12-May-2019 19:33
Surr: Toluene-d8	102			82-127	%REC	1	12-May-2019 19:33
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,030		4.00	10.0	mg/L	20	20-May-2019 21:35

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: Trip Blank
 Collection Date: 08-May-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19050571
 Lab ID:HS19050571-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	12-May-2019 17:33
Ethylbenzene	U		0.00050	0.0050	mg/L	1	12-May-2019 17:33
Toluene	U		0.00050	0.0050	mg/L	1	12-May-2019 17:33
Xylenes, Total	U		0.00050	0.0050	mg/L	1	12-May-2019 17:33
Surr: 1,2-Dichloroethane-d4	97.6			70-126	%REC	1	12-May-2019 17:33
Surr: 4-Bromofluorobenzene	100			82-124	%REC	1	12-May-2019 17:33
Surr: Dibromofluoromethane	97.8			77-123	%REC	1	12-May-2019 17:33
Surr: Toluene-d8	102			82-127	%REC	1	12-May-2019 17:33

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

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R338280		Test Name : VOLATILES - SW8260C		Matrix: Water		
HS19050571-07	Trip Blank	08 May 2019 00:00			12 May 2019 17:33	1
Batch ID R338280		Test Name : VOLATILES - SW8260C		Matrix: Groundwater		
HS19050571-01	MW-1R	08 May 2019 12:15			12 May 2019 15:03	1
HS19050571-02	MW-2	08 May 2019 11:45			12 May 2019 17:57	1
HS19050571-03	MW-3	08 May 2019 12:12			12 May 2019 18:21	1
HS19050571-04	MW-4	08 May 2019 11:05			12 May 2019 18:45	1
HS19050571-05	MW-5	08 May 2019 11:00			12 May 2019 19:09	1
HS19050571-06	DUP	08 May 2019 00:00			12 May 2019 19:33	1
Batch ID R338818		Test Name : ANIONS BY E300.0		Matrix: Groundwater		
HS19050571-01	MW-1R	08 May 2019 12:15			20 May 2019 20:21	500
HS19050571-02	MW-2	08 May 2019 11:45			20 May 2019 20:36	5
HS19050571-03	MW-3	08 May 2019 12:12			20 May 2019 20:51	5
HS19050571-04	MW-4	08 May 2019 11:05			20 May 2019 21:05	20
HS19050571-05	MW-5	08 May 2019 11:00			20 May 2019 21:20	5
HS19050571-06	DUP	08 May 2019 00:00			20 May 2019 21:35	20

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

QC BATCH REPORT

Batch ID: R338280 (0)		Instrument: VOA6		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-190512	Units: ug/L		Analysis Date: 12-May-2019 14:39					
Client ID:	Run ID: VOA6_338280	SeqNo: 5071924		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	48.02	0	50	0	96.0	70 - 130			
Surr: 4-Bromofluorobenzene	49.22	0	50	0	98.4	82 - 115			
Surr: Dibromofluoromethane	48.48	0	50	0	97.0	73 - 126			
Surr: Toluene-d8	49.76	0	50	0	99.5	81 - 120			

LCS	Sample ID: VLCSW-190512	Units: ug/L		Analysis Date: 12-May-2019 13:51					
Client ID:	Run ID: VOA6_338280	SeqNo: 5071923		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	17.76	5.0	20	0	88.8	74 - 120			
Ethylbenzene	17.22	5.0	20	0	86.1	77 - 117			
Toluene	18.06	5.0	20	0	90.3	77 - 118			
Xylenes, Total	52.74	5.0	60	0	87.9	75 - 122			
Surr: 1,2-Dichloroethane-d4	48.89	0	50	0	97.8	70 - 130			
Surr: 4-Bromofluorobenzene	49.57	0	50	0	99.1	82 - 115			
Surr: Dibromofluoromethane	48.89	0	50	0	97.8	73 - 126			
Surr: Toluene-d8	51.61	0	50	0	103	81 - 120			

MS	Sample ID: HS19050571-01MS	Units: ug/L		Analysis Date: 12-May-2019 15:52					
Client ID: MW-1R	Run ID: VOA6_338280	SeqNo: 5071927		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	21.7	5.0	20	0	108	70 - 127			
Ethylbenzene	22.62	5.0	20	0	113	70 - 124			
Toluene	22.8	5.0	20	0	114	70 - 123			
Xylenes, Total	68.87	5.0	60	0	115	70 - 130			
Surr: 1,2-Dichloroethane-d4	49.23	0	50	0	98.5	70 - 126			
Surr: 4-Bromofluorobenzene	49.32	0	50	0	98.6	82 - 124			
Surr: Dibromofluoromethane	49.2	0	50	0	98.4	77 - 123			
Surr: Toluene-d8	50.74	0	50	0	101	82 - 127			

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

QC BATCH REPORT

Batch ID: R338280 (0)		Instrument: VOA6		Method: VOLATILES - SW8260C					
MSD		Sample ID: HS19050571-01MSD		Units: ug/L		Analysis Date: 12-May-2019 16:16			
Client ID: MW-1R		Run ID: VOA6_338280		SeqNo: 5071928		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	19.95	5.0	20	0	99.8	70 - 127	21.7	8.39	20
Ethylbenzene	21.38	5.0	20	0	107	70 - 124	22.62	5.63	20
Toluene	21.47	5.0	20	0	107	70 - 123	22.8	6.01	20
Xylenes, Total	65.11	5.0	60	0	109	70 - 130	68.87	5.61	20
Surr: 1,2-Dichloroethane-d4	50.56	0	50	0	101	70 - 126	49.23	2.66	20
Surr: 4-Bromofluorobenzene	50.63	0	50	0	101	82 - 124	49.32	2.62	20
Surr: Dibromofluoromethane	49.94	0	50	0	99.9	77 - 123	49.2	1.48	20
Surr: Toluene-d8	50.87	0	50	0	102	82 - 127	50.74	0.251	20
The following samples were analyzed in this batch:									
HS19050571-01		HS19050571-02		HS19050571-03		HS19050571-04			
HS19050571-05		HS19050571-06		HS19050571-07					

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

QC BATCH REPORT

Batch ID: R338818 (0)		Instrument: ICS2100		Method: ANIONS BY E300.0					
MBLK	Sample ID: WBLKW1-052019	Units: mg/L		Analysis Date: 20-May-2019 14:20					
Client ID:	Run ID: ICS2100_338818	SeqNo: 5082902		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	U	0.500							
LCS	Sample ID: WLCBW1-052019	Units: mg/L		Analysis Date: 20-May-2019 14:34					
Client ID:	Run ID: ICS2100_338818	SeqNo: 5082903		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	20.52	0.500	20	0	103	90 - 110			
LCSD	Sample ID: WLCSDW1-052019	Units: mg/L		Analysis Date: 20-May-2019 14:49					
Client ID:	Run ID: ICS2100_338818	SeqNo: 5082904		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	19.96	0.500	20	0	99.8	90 - 110	20.52	2.75	20
MS	Sample ID: HS19050595-01MS	Units: mg/L		Analysis Date: 20-May-2019 23:02					
Client ID:	Run ID: ICS2100_338818	SeqNo: 5082921		PrepDate:		DF: 500			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	8946	250	5000	4375	91.4	80 - 120			
MS	Sample ID: HS19050571-06MS	Units: mg/L		Analysis Date: 20-May-2019 21:49					
Client ID: DUP	Run ID: ICS2100_338818	SeqNo: 5082916		PrepDate:		DF: 20			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	1170	10.0	200	1026	72.0	80 - 120			SO
MSD	Sample ID: HS19050595-01MSD	Units: mg/L		Analysis Date: 20-May-2019 23:17					
Client ID:	Run ID: ICS2100_338818	SeqNo: 5082922		PrepDate:		DF: 500			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	9258	250	5000	4375	97.7	80 - 120	8946	3.43	20

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

QC BATCH REPORT

Batch ID: R338818 (0)		Instrument: ICS2100		Method: ANIONS BY E300.0						
MSD	Sample ID: HS19050571-06MSD	Units: mg/L			Analysis Date: 20-May-2019 22:04					
Client ID: DUP	Run ID: ICS2100_338818		SeqNo: 5082917		PrepDate:		DF: 20			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1161	10.0	200	1026	67.6	80 - 120	1170	0.753	20	SO
The following samples were analyzed in this batch:				HS19050571-01 HS19050571-05		HS19050571-02 HS19050571-06		HS19050571-03		HS19050571-04

ALS Houston, US

Date: 21-May-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19050571

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

ALS Houston, US

Date: 21-May-19

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	ANAB L2231	20-Dec-2021
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019
North Carolina	624-2019	31-Dec-2019
Maryland	343, 2018-2019	30-Jun-2019
Arkansas	19-028-0	27-Mar-2020
Texas	TX104704231-19-23	30-Apr-2020

ALS Houston, US

Date: 21-May-19

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **09-May-2019 09:00**

Work Order: HS19050571

Received by: **RPG**

Checklist completed by: Nilesh D. Ranchod 10-May-2019
eSignature Date

Reviewed by: Dane J. Wacasey 16-May-2019
eSignature Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:199874
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	1.5C UC/C IR # 25		
Cooler(s)/Kit(s):	25774		
Date/Time sample(s) sent to storage:	05/09/2019 18:00		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

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

Chain of Custody Form

Page ____ of ____

COC ID: 199874

HS19050571

Glenn Springs Holdings, Inc.
55626DM GSHI PXP Elliot E.M. Federal TB

Customer Information			Project Information			ALS Project Manager:													
Purchase Order	4502201559 ENV 749-4		Project Name	GSHI PXP Elliot E.M. Federal TB	A	8260_W (BTEX)													
Work Order			Project Number	55626DM (ENV749A006)	B	300_W (Chloride)													
Company Name	Glenn Springs Holdings, Inc.		Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX) Trip Blank													
Send Report To	Mike Carmona		Invoice Attn	Accounts Payable	D														
Address	PO Box 2148		Address	PO Box 2148	E														
					F														
					G														
City/State/Zip	Houston, TX 77252-2148		City/State/Zip	Houston TX 77252-2148	H														
Phone			Phone		I														
Fax			Fax		J														
e-Mail Address	Mike.Carmona@tetrattech.com		e-Mail Address																

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1R	5-8-19	1215	Groundwa	1,8	4	X	X									
2	MW-2	5-8-19	1145	Groundwa	1,8	4	X	X									
3	MW-3	5-8-19	1212	Groundwa	1,8	4	X	X									
4	MW-4	5-8-19	1105	Groundwa	1,8	4	X	X									
5	MW-5	5-8-19	1100	Groundwa	1,8	4	X	X									
6	DUP	5-8-19	—	Groundwa	1,8	4	X	X									
7	Trip Blank	5-8-19	—	Water	1,8	2			X								
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Preston Patevint</i>			Shipment Method FedEx		Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour			Results Due Date:		
Relinquished by: <i>Preston Patevint</i>		Date: 5-8-19	Time: 4:30	Received by: <i>RC</i>		Notes: [GSHI PXP Elliot EM Federal TB]				
Relinquished by:		Date:	Time:	Received by (Laboratory): <i>RC</i>		Cooler ID: 51719	Cooler Temp. 11.1C	QC Package: (Check One Box Below)		
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory): <i>RC</i>		25774	25774	☒ Level II Std QC	☐ TRRP Checklist	
								☐ Level III Std QC/Raw Data	☐ TRRP Level IV	
								☐ Level IV SW646/CLP		
								☐ Other		

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

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

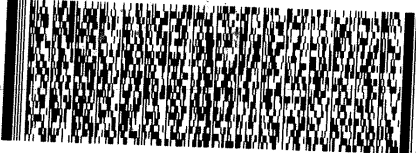
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

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

Copyright 2011 by ALS Environmental.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 5-12-19	Time: 4:30	SM
	Name: Boston Police	Company: Tetra Tech	Date: 05/09/19

25774 MAY 09 2019

		Must Deliver Next Business Day Time and Temperature Sensitive!
25774		Panel 158/03/434 R12 EXP 04/20
ORIGIN ID: SGRA (432) 682-4559 MIKE CARLONA GSHI - TETRA TECH 901 WEST WALL ST, SUITE 100 MIDLAND, TX 79701 UNITED STATES US		SHIP DATE: 24APR19 ACTWGT: 1.00 LB MAN CAD: 300130/CAFE3211 DIMS: 19x16x13 IN
TO: CLIENT SERVICES ALS LABORATORY GROUP 10450 STANCLIFF ROAD SUITE 210 HOUSTON TX 77099 (281) 530-6656 REF: 55626DM GSHI PKP ELLIOT E.M FEDERAL - DW RMA:		
		FedEx Express 
FedEx TRK# 4809 7833 1133 0221		THU - 09 MAY 10:30A PRIORITY OVERNIGHT 7:45S 77099 TX-US IAH 03/20
AB SGRA		
		



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

August 21, 2019

James Abston
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS19080491**

Laboratory Results for: **55626DM GSHI PXP Elliot E.M. Federal TB**

Dear James,

ALS Environmental received 7 sample(s) on Aug 09, 2019 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US

Date: 21-ago-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19080491

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19080491-01	MW-1R	Groundwater		07-Aug-2019 12:45	09-Aug-2019 08:45	☐
HS19080491-02	MW-2	Groundwater		07-Aug-2019 11:45	09-Aug-2019 08:45	☐
HS19080491-03	MW-3	Groundwater		07-Aug-2019 12:30	09-Aug-2019 08:45	☐
HS19080491-04	MW-4	Groundwater		07-Aug-2019 12:07	09-Aug-2019 08:45	☐
HS19080491-05	MW-5	Groundwater		07-Aug-2019 12:10	09-Aug-2019 08:45	☐
HS19080491-06	DUP	Groundwater		07-Aug-2019 00:00	09-Aug-2019 08:45	☐
HS19080491-07	Trip Blank	Water	C&G- 062119-319	07-Aug-2019 00:00	09-Aug-2019 08:45	☐

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19080491

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R344140

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

WetChemistry by Method E300

Batch ID: R344496

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-1R
 Collection Date: 07-Aug-2019 12:45

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 07:36
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 07:36
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 07:36
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 07:36
Surr: 1,2-Dichloroethane-d4	96.0			70-126	%REC	1	13-Aug-2019 07:36
Surr: 4-Bromofluorobenzene	94.3			82-124	%REC	1	13-Aug-2019 07:36
Surr: Dibromofluoromethane	99.0			77-123	%REC	1	13-Aug-2019 07:36
Surr: Toluene-d8	100			82-127	%REC	1	13-Aug-2019 07:36
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	8,840		100	250	mg/L	500	16-Aug-2019 19:11

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-2
 Collection Date: 07-Aug-2019 11:45

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 08:00
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:00
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:00
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:00
Surr: 1,2-Dichloroethane-d4	95.0			70-126	%REC	1	13-Aug-2019 08:00
Surr: 4-Bromofluorobenzene	96.6			82-124	%REC	1	13-Aug-2019 08:00
Surr: Dibromofluoromethane	98.6			77-123	%REC	1	13-Aug-2019 08:00
Surr: Toluene-d8	99.5			82-127	%REC	1	13-Aug-2019 08:00
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	56.6		2.00	5.00	mg/L	10	16-Aug-2019 20:34

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-3
 Collection Date: 07-Aug-2019 12:30

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 08:24
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:24
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:24
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:24
Surr: 1,2-Dichloroethane-d4	95.9			70-126	%REC	1	13-Aug-2019 08:24
Surr: 4-Bromofluorobenzene	97.6			82-124	%REC	1	13-Aug-2019 08:24
Surr: Dibromofluoromethane	101			77-123	%REC	1	13-Aug-2019 08:24
Surr: Toluene-d8	100			82-127	%REC	1	13-Aug-2019 08:24
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	55.9		2.00	5.00	mg/L	10	16-Aug-2019 19:27

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-4
 Collection Date: 07-Aug-2019 12:07

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 08:49
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:49
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:49
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 08:49
Surr: 1,2-Dichloroethane-d4	93.7			70-126	%REC	1	13-Aug-2019 08:49
Surr: 4-Bromofluorobenzene	95.0			82-124	%REC	1	13-Aug-2019 08:49
Surr: Dibromofluoromethane	97.8			77-123	%REC	1	13-Aug-2019 08:49
Surr: Toluene-d8	100			82-127	%REC	1	13-Aug-2019 08:49
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	933		10.0	25.0	mg/L	50	16-Aug-2019 19:44

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-5
 Collection Date: 07-Aug-2019 12:10

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 09:13
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:13
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:13
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:13
Surr: 1,2-Dichloroethane-d4	95.9			70-126	%REC	1	13-Aug-2019 09:13
Surr: 4-Bromofluorobenzene	94.7			82-124	%REC	1	13-Aug-2019 09:13
Surr: Dibromofluoromethane	98.0			77-123	%REC	1	13-Aug-2019 09:13
Surr: Toluene-d8	99.2			82-127	%REC	1	13-Aug-2019 09:13
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	50.4		2.00	5.00	mg/L	10	16-Aug-2019 21:24

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: DUP
 Collection Date: 07-Aug-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-06
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 09:37
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:37
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:37
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 09:37
Surr: 1,2-Dichloroethane-d4	96.9			70-126	%REC	1	13-Aug-2019 09:37
Surr: 4-Bromofluorobenzene	95.4			82-124	%REC	1	13-Aug-2019 09:37
Surr: Dibromofluoromethane	101			77-123	%REC	1	13-Aug-2019 09:37
Surr: Toluene-d8	99.0			82-127	%REC	1	13-Aug-2019 09:37
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	931		10.0	25.0	mg/L	50	16-Aug-2019 21:40

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

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: Trip Blank
 Collection Date: 07-Aug-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19080491
 Lab ID:HS19080491-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	13-Aug-2019 01:30
Ethylbenzene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 01:30
Toluene	U		0.00050	0.0050	mg/L	1	13-Aug-2019 01:30
Xylenes, Total	U		0.00050	0.0050	mg/L	1	13-Aug-2019 01:30
Surr: 1,2-Dichloroethane-d4	94.6			70-126	%REC	1	13-Aug-2019 01:30
Surr: 4-Bromofluorobenzene	95.7			82-124	%REC	1	13-Aug-2019 01:30
Surr: Dibromofluoromethane	98.2			77-123	%REC	1	13-Aug-2019 01:30
Surr: Toluene-d8	99.8			82-127	%REC	1	13-Aug-2019 01:30

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

ALS Houston, US

Date: 21-ago-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID: R344140 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS19080491-07	Trip Blank	07 Aug 2019 00:00			13 Aug 2019 01:30	1
Batch ID: R344140 (0)		Test Name : VOLATILES - SW8260C			Matrix: Groundwater	
HS19080491-01	MW-1R	07 Aug 2019 12:45			13 Aug 2019 07:36	1
HS19080491-02	MW-2	07 Aug 2019 11:45			13 Aug 2019 08:00	1
HS19080491-03	MW-3	07 Aug 2019 12:30			13 Aug 2019 08:24	1
HS19080491-04	MW-4	07 Aug 2019 12:07			13 Aug 2019 08:49	1
HS19080491-05	MW-5	07 Aug 2019 12:10			13 Aug 2019 09:13	1
HS19080491-06	DUP	07 Aug 2019 00:00			13 Aug 2019 09:37	1
Batch ID: R344496 (0)		Test Name : ANIONS BY E300.0			Matrix: Groundwater	
HS19080491-01	MW-1R	07 Aug 2019 12:45			16 Aug 2019 19:11	500
HS19080491-02	MW-2	07 Aug 2019 11:45			16 Aug 2019 20:34	10
HS19080491-03	MW-3	07 Aug 2019 12:30			16 Aug 2019 19:27	10
HS19080491-04	MW-4	07 Aug 2019 12:07			16 Aug 2019 19:44	50
HS19080491-05	MW-5	07 Aug 2019 12:10			16 Aug 2019 21:24	10
HS19080491-06	DUP	07 Aug 2019 00:00			16 Aug 2019 21:40	50

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

QC BATCH REPORT

Batch ID: R344140 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-190812	Units: ug/L		Analysis Date: 13-Aug-2019 00:17					
Client ID:	Run ID: VOA9_344140	SeqNo: 5207053		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	46.83	0	50	0	93.7	70 - 130			
Surr: 4-Bromofluorobenzene	47.94	0	50	0	95.9	82 - 115			
Surr: Dibromofluoromethane	49.71	0	50	0	99.4	73 - 126			
Surr: Toluene-d8	49.92	0	50	0	99.8	81 - 120			

LCS	Sample ID: VLCSW-190812	Units: ug/L		Analysis Date: 12-Aug-2019 23:29					
Client ID:	Run ID: VOA9_344140	SeqNo: 5207052		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	21.08	5.0	20	0	105	74 - 120			
Ethylbenzene	21.27	5.0	20	0	106	77 - 117			
Toluene	20.62	5.0	20	0	103	77 - 118			
Xylenes, Total	64.6	5.0	60	0	108	75 - 122			
Surr: 1,2-Dichloroethane-d4	45.04	0	50	0	90.1	70 - 130			
Surr: 4-Bromofluorobenzene	50.43	0	50	0	101	82 - 115			
Surr: Dibromofluoromethane	48.66	0	50	0	97.3	73 - 126			
Surr: Toluene-d8	50.17	0	50	0	100	81 - 120			

MS	Sample ID: HS19080475-01MS	Units: ug/L		Analysis Date: 13-Aug-2019 03:08					
Client ID:	Run ID: VOA9_344140	SeqNo: 5207060		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Benzene	20.84	5.0	20	0	104	70 - 127			
Ethylbenzene	21.35	5.0	20	0	107	70 - 124			
Toluene	20.51	5.0	20	0	103	70 - 123			
Xylenes, Total	64.14	5.0	60	0	107	70 - 130			
Surr: 1,2-Dichloroethane-d4	46.15	0	50	0	92.3	70 - 126			
Surr: 4-Bromofluorobenzene	50.19	0	50	0	100	82 - 124			
Surr: Dibromofluoromethane	49.22	0	50	0	98.4	77 - 123			
Surr: Toluene-d8	50.51	0	50	0	101	82 - 127			

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

QC BATCH REPORT

Batch ID: R344140 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MSD		Sample ID: HS19080475-01MSD		Units: ug/L		Analysis Date: 13-Aug-2019 03:32			
Client ID:		Run ID: VOA9_344140		SeqNo: 5207061		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.36	5.0	20	0	102	70 - 127	20.84	2.34	20
Ethylbenzene	20.54	5.0	20	0	103	70 - 124	21.35	3.87	20
Toluene	19.51	5.0	20	0	97.6	70 - 123	20.51	4.97	20
Xylenes, Total	60.82	5.0	60	0	101	70 - 130	64.14	5.3	20
Surr: 1,2-Dichloroethane-d4	45.43	0	50	0	90.9	70 - 126	46.15	1.57	20
Surr: 4-Bromofluorobenzene	48.91	0	50	0	97.8	82 - 124	50.19	2.59	20
Surr: Dibromofluoromethane	49.43	0	50	0	98.9	77 - 123	49.22	0.424	20
Surr: Toluene-d8	49.86	0	50	0	99.7	82 - 127	50.51	1.29	20
The following samples were analyzed in this batch:									
HS19080491-01		HS19080491-02		HS19080491-03		HS19080491-04			
HS19080491-05		HS19080491-06		HS19080491-07					

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

QC BATCH REPORT

Batch ID: R344496 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MBLK	Sample ID: WBLKW1-081619	Units: mg/L		Analysis Date: 16-Aug-2019 13:55					
Client ID:	Run ID: ICS-Integrion_344496		SeqNo: 5214679		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	U	0.500							
LCS	Sample ID: WLCBW1-081619	Units: mg/L		Analysis Date: 16-Aug-2019 14:12					
Client ID:	Run ID: ICS-Integrion_344496		SeqNo: 5214680		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	19.99	0.500	20	0	99.9	90 - 110			
LCSD	Sample ID: WLCSDW1-081619	Units: mg/L		Analysis Date: 16-Aug-2019 14:28					
Client ID:	Run ID: ICS-Integrion_344496		SeqNo: 5214681		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	20.09	0.500	20	0	100	90 - 110	19.99	0.509	20
MS	Sample ID: HS19080815-02MS	Units: mg/L		Analysis Date: 16-Aug-2019 15:35					
Client ID:	Run ID: ICS-Integrion_344496		SeqNo: 5214685		PrepDate:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	1190	25.0	250	929.8	104	80 - 120			
MS	Sample ID: HS19080491-02MS	Units: mg/L		Analysis Date: 16-Aug-2019 20:50					
Client ID: MW-2	Run ID: ICS-Integrion_344496		SeqNo: 5214704		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	152.1	5.00	100	56.58	95.5	80 - 120			
MSD	Sample ID: HS19080815-02MSD	Units: mg/L		Analysis Date: 16-Aug-2019 15:51					
Client ID:	Run ID: ICS-Integrion_344496		SeqNo: 5214686		PrepDate:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	1189	25.0	250	929.8	104	80 - 120	1190	0.147	20

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

QC BATCH REPORT

Batch ID: R344496 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MSD	Sample ID: HS19080491-02MSD	Units: mg/L		Analysis Date: 16-Aug-2019 21:07					
Client ID: MW-2	Run ID: ICS-Integrion_344496		SeqNo: 5214705		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	152.6	5.00	100	56.58	96.0	80 - 120	152.1	0.309	20

The following samples were analyzed in this batch:

HS19080491-01	HS19080491-02	HS19080491-03	HS19080491-04
HS19080491-05	HS19080491-06		

ALS Houston, US

Date: 21-Aug-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19080491

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

ALS Houston, US

Date: 21-Aug-19

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231	20-Dec-2021
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Carolina	624-2019	31-Dec-2019
Oklahoma	2018-156	31-Aug-2019
Texas	TX104704231-19-23	30-Apr-2020

ALS Houston, US

Date: 21-Aug-19

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **09-Aug-2019 08:45**

Work Order: HS19080491

Received by: **JRM**

Checklist completed by: Nilesh D. Ranchod 9-Aug-2019
eSignature Date

Reviewed by: Dane J. Wacasey 21-Aug-2019
eSignature Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:205746
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	2.1C UC/C IR # 25		
Cooler(s)/Kit(s):	43876		
Date/Time sample(s) sent to storage:	08/09/2019 5:15pm		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

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

Chain of Custody Form

Page 1 of 1

COC ID: 205746

HS19080491

Glenn Springs Holdings, Inc.
55626DM GSHI PXP Elliot E.M. Federal TB

Customer Information				Project Information				ALS Project Manager:												
Purchase Order	4502201559 ENV 749-402-D02-1'0			Project Name	GSHI PXP Elliot E.M. Federal TB			A	8260_W (BTEX)											
Work Order				Project Number	55626DM (ENV749A006)			B	300_W (Chloride)											
Company Name	Glenn Springs Holdings, Inc.			Bill To Company	Glenn Springs Holdings, Inc.			C	8260_W (BTEX) Trip Blank											
Send Report To	Mike Carmona			Invoice Attn	Accounts Payable			D												
Address	PO Box 2148			Address	PO Box 2148			E												
								F												
City/State/Zip	Houston, TX 77252-2148			City/State/Zip	Houston TX 77252-2148			G												
Phone				Phone				H												
Fax				Fax				I												
e-Mail Address	Mike.Carmona@tetrattech.com			e-Mail Address				J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1R	8-7-19	1245	Groundwa	1,8	4	X	X									
2	MW-2	8-7-19	1145	Groundwa	1,8	4	X	X									
3	MW-3	8-7-19	1230	Groundwa	1,8	4	X	X									
4	MW-4	8-7-19	1207	Groundwa	1,8	4	X	X									
5	MW-5	8-7-19	1210	Groundwa	1,8	4	X	X									
6	DUP	8-7-19	—	Groundwa	1,8	4	X	X									
7	Trip Blank			Water	1,8	2			X								
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Preston Portant</i>				Shipment Method FedEx		Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:		
Relinquished by: <i>[Signature]</i>		Date: 8-8-19	Time: 1600	Received by: <i>[Signature]</i>		Notes: [GSHI PXP Elliot EM Federal TB]						
Relinquished by:		Date: 8/9/19	Time: 08:45	Received by (Laboratory): <i>[Signature]</i>		Cooler ID 43876	Cooler Temp. 2.1	QC Package: (Check One Box Below)				
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				☒ Level II Std QC	☐ *RFP Checkdlet			
								☐ Level III Std QC/Raw Data	☐ *RFP Level IV			
								☐ Level IV SW/BA/CLP				
								☐ Other				

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

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

Copyright 2011 by ALS Environmental.

	ALS	CI Date: <u>8-8-20</u> Name: _____ Company: _____
	10450 Stancliff Rd., Suite 210	
	Houston, Texas 77099	
	Tel. +1 281 530 5656	
	Fax. +1 281 530 5887	

JUSTODY SEAL		Seal Broken By:
Time: <u>1600</u>	<u>Potential</u> <u>Extra Tech</u>	Date: <u>8/9/20</u>

TRK# 4809 7836 3058
 0221
 RETURNS MON--SAT
 PRIORITY OVERNIGHT



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

November 26, 2019

Mike Carmona
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS19111015**

Laboratory Results for: **55626DM GSHI PXP Elliot E.M. Federal TB**

Dear Mike,

ALS Environmental received 7 sample(s) on Nov 20, 2019 for the analysis presented in the following report.

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

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

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

Sincerely,

Generated By: JUMOKE.LAWAL

Dane J. Wacasey

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19111015

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19111015-01	MW-1R	Groundwater		15-Nov-2019 14:10	20-Nov-2019 08:53	☐
HS19111015-02	MW-2	Groundwater		15-Nov-2019 13:45	20-Nov-2019 08:53	☐
HS19111015-03	MW-3	Groundwater		15-Nov-2019 14:10	20-Nov-2019 08:53	☐
HS19111015-04	MW-4	Groundwater		15-Nov-2019 13:20	20-Nov-2019 08:53	☐
HS19111015-05	MW-5	Groundwater		15-Nov-2019 13:05	20-Nov-2019 08:53	☐
HS19111015-06	DUP	Groundwater		15-Nov-2019 00:00	20-Nov-2019 08:53	☐
HS19111015-07	Trip Blank	Water		15-Nov-2019 00:00	20-Nov-2019 08:53	☐

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
Work Order: HS19111015

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R351083

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

WetChemistry by Method E300

Batch ID: R351223

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-1R
 Collection Date: 15-Nov-2019 14:10

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 18:34
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:34
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:34
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:34
Surr: 1,2-Dichloroethane-d4	100			70-126	%REC	1	21-Nov-2019 18:34
Surr: 4-Bromofluorobenzene	94.3			82-124	%REC	1	21-Nov-2019 18:34
Surr: Dibromofluoromethane	89.9			77-123	%REC	1	21-Nov-2019 18:34
Surr: Toluene-d8	105			82-127	%REC	1	21-Nov-2019 18:34
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	7,870		100	250	mg/L	500	25-Nov-2019 02:26

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-2
 Collection Date: 15-Nov-2019 13:45

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 18:58
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:58
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:58
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:58
Surr: 1,2-Dichloroethane-d4	100			70-126	%REC	1	21-Nov-2019 18:58
Surr: 4-Bromofluorobenzene	87.7			82-124	%REC	1	21-Nov-2019 18:58
Surr: Dibromofluoromethane	89.7			77-123	%REC	1	21-Nov-2019 18:58
Surr: Toluene-d8	108			82-127	%REC	1	21-Nov-2019 18:58
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	55.2		0.200	0.500	mg/L	1	25-Nov-2019 02:42

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-3
 Collection Date: 15-Nov-2019 14:10

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 19:22
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:22
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:22
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:22
Surr: 1,2-Dichloroethane-d4	98.3			70-126	%REC	1	21-Nov-2019 19:22
Surr: 4-Bromofluorobenzene	97.6			82-124	%REC	1	21-Nov-2019 19:22
Surr: Dibromofluoromethane	86.9			77-123	%REC	1	21-Nov-2019 19:22
Surr: Toluene-d8	108			82-127	%REC	1	21-Nov-2019 19:22
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	55.4		0.200	0.500	mg/L	1	25-Nov-2019 02:59

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-4
 Collection Date: 15-Nov-2019 13:20

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 19:47
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:47
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:47
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 19:47
Surr: 1,2-Dichloroethane-d4	99.5			70-126	%REC	1	21-Nov-2019 19:47
Surr: 4-Bromofluorobenzene	92.7			82-124	%REC	1	21-Nov-2019 19:47
Surr: Dibromofluoromethane	87.4			77-123	%REC	1	21-Nov-2019 19:47
Surr: Toluene-d8	106			82-127	%REC	1	21-Nov-2019 19:47
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,000		4.00	10.0	mg/L	20	25-Nov-2019 03:15

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: MW-5
 Collection Date: 15-Nov-2019 13:05

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 20:11
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:11
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:11
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:11
Surr: 1,2-Dichloroethane-d4	103			70-126	%REC	1	21-Nov-2019 20:11
Surr: 4-Bromofluorobenzene	92.7			82-124	%REC	1	21-Nov-2019 20:11
Surr: Dibromofluoromethane	87.7			77-123	%REC	1	21-Nov-2019 20:11
Surr: Toluene-d8	105			82-127	%REC	1	21-Nov-2019 20:11
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	49.6		0.200	0.500	mg/L	1	25-Nov-2019 03:32

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: DUP
 Collection Date: 15-Nov-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-06
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 20:35
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:35
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:35
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 20:35
Surr: 1,2-Dichloroethane-d4	94.8			70-126	%REC	1	21-Nov-2019 20:35
Surr: 4-Bromofluorobenzene	96.4			82-124	%REC	1	21-Nov-2019 20:35
Surr: Dibromofluoromethane	79.5			77-123	%REC	1	21-Nov-2019 20:35
Surr: Toluene-d8	110			82-127	%REC	1	21-Nov-2019 20:35
ANIONS BY E300.0		Method:E300				Analyst: KMU	
Chloride	1,010		4.00	10.0	mg/L	20	25-Nov-2019 03:48

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
 Project: 55626DM GSHI PXP Elliot E.M. Federal TB
 Sample ID: Trip Blank
 Collection Date: 15-Nov-2019 00:00

ANALYTICAL REPORT

WorkOrder:HS19111015
 Lab ID:HS19111015-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES - SW8260C		Method:SW8260				Analyst: PC	
Benzene	U		0.00060	0.0050	mg/L	1	21-Nov-2019 18:09
Ethylbenzene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:09
Toluene	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:09
Xylenes, Total	U		0.00050	0.0050	mg/L	1	21-Nov-2019 18:09
Surr: 1,2-Dichloroethane-d4	98.5			70-126	%REC	1	21-Nov-2019 18:09
Surr: 4-Bromofluorobenzene	98.3			82-124	%REC	1	21-Nov-2019 18:09
Surr: Dibromofluoromethane	88.7			77-123	%REC	1	21-Nov-2019 18:09
Surr: Toluene-d8	106			82-127	%REC	1	21-Nov-2019 18:09

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

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R351083 (0)		Test Name : VOLATILES - SW8260C			Matrix: Water	
HS19111015-07	Trip Blank	15 Nov 2019 00:00			21 Nov 2019 18:09	1
Batch ID: R351083 (0)		Test Name : VOLATILES - SW8260C			Matrix: Groundwater	
HS19111015-01	MW-1R	15 Nov 2019 14:10			21 Nov 2019 18:34	1
HS19111015-02	MW-2	15 Nov 2019 13:45			21 Nov 2019 18:58	1
HS19111015-03	MW-3	15 Nov 2019 14:10			21 Nov 2019 19:22	1
HS19111015-04	MW-4	15 Nov 2019 13:20			21 Nov 2019 19:47	1
HS19111015-05	MW-5	15 Nov 2019 13:05			21 Nov 2019 20:11	1
HS19111015-06	DUP	15 Nov 2019 00:00			21 Nov 2019 20:35	1
Batch ID: R351223 (0)		Test Name : ANIONS BY E300.0			Matrix: Groundwater	
HS19111015-01	MW-1R	15 Nov 2019 14:10			25 Nov 2019 02:26	500
HS19111015-02	MW-2	15 Nov 2019 13:45			25 Nov 2019 02:42	1
HS19111015-03	MW-3	15 Nov 2019 14:10			25 Nov 2019 02:59	1
HS19111015-04	MW-4	15 Nov 2019 13:20			25 Nov 2019 03:15	20
HS19111015-05	MW-5	15 Nov 2019 13:05			25 Nov 2019 03:32	1
HS19111015-06	DUP	15 Nov 2019 00:00			25 Nov 2019 03:48	20

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

QC BATCH REPORT

Batch ID: R351083 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C					
MBLK	Sample ID: VBLKW-191121	Units: ug/L		Analysis Date: 21-Nov-2019 14:54					
Client ID:	Run ID: VOA9_351083	SeqNo: 5356339		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Toluene	U	5.0							
Xylenes, Total	U	5.0							
Surr: 1,2-Dichloroethane-d4	51.34	0	50	0	103	70 - 130			
Surr: 4-Bromofluorobenzene	45.42	0	50	0	90.8	82 - 115			
Surr: Dibromofluoromethane	45.26	0	50	0	90.5	73 - 126			
Surr: Toluene-d8	53.78	0	50	0	108	81 - 120			

LCS	Sample ID: VLCSW-191121	Units: ug/L		Analysis Date: 21-Nov-2019 14:05					
Client ID:	Run ID: VOA9_351083	SeqNo: 5356338		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	21.65	5.0	20	0	108	74 - 120			
Ethylbenzene	19.33	5.0	20	0	96.6	77 - 117			
Toluene	19.14	5.0	20	0	95.7	77 - 118			
Xylenes, Total	55.24	5.0	60	0	92.1	75 - 122			
Surr: 1,2-Dichloroethane-d4	56.37	0	50	0	113	70 - 130			
Surr: 4-Bromofluorobenzene	46.91	0	50	0	93.8	82 - 115			
Surr: Dibromofluoromethane	50.69	0	50	0	101	73 - 126			
Surr: Toluene-d8	49.39	0	50	0	98.8	81 - 120			

MS	Sample ID: HS19110944-22MS	Units: ug/L		Analysis Date: 21-Nov-2019 16:07					
Client ID:	Run ID: VOA9_351083	SeqNo: 5356342		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	32.58	5.0	20	12.57	100	70 - 127			
Ethylbenzene	23.49	5.0	20	0	117	70 - 124			
Toluene	23.98	5.0	20	0	120	70 - 123			
Xylenes, Total	68.42	5.0	60	0	114	70 - 130			
Surr: 1,2-Dichloroethane-d4	49.24	0	50	0	98.5	70 - 126			
Surr: 4-Bromofluorobenzene	51.71	0	50	0	103	82 - 124			
Surr: Dibromofluoromethane	47.26	0	50	0	94.5	77 - 123			
Surr: Toluene-d8	51.08	0	50	0	102	82 - 127			

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

QC BATCH REPORT

Batch ID: R351083 (0)		Instrument: VOA9		Method: VOLATILES - SW8260C						
MSD	Sample ID: HS19110944-22MSD	Units: ug/L		Analysis Date: 21-Nov-2019 16:32						
Client ID:	Run ID: VOA9_351083		SeqNo: 5356343		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	31.45	5.0	20	12.57	94.4	70 - 127	32.58	3.52	20	
Ethylbenzene	23.4	5.0	20	0	117	70 - 124	23.49	0.389	20	
Toluene	22.67	5.0	20	0	113	70 - 123	23.98	5.62	20	
Xylenes, Total	66.33	5.0	60	0	111	70 - 130	68.42	3.1	20	
Surr: 1,2-Dichloroethane-d4	49.36	0	50	0	98.7	70 - 126	49.24	0.247	20	
Surr: 4-Bromofluorobenzene	50.28	0	50	0	101	82 - 124	51.71	2.79	20	
Surr: Dibromofluoromethane	47.54	0	50	0	95.1	77 - 123	47.26	0.593	20	
Surr: Toluene-d8	51.61	0	50	0	103	82 - 127	51.08	1.04	20	
The following samples were analyzed in this batch:										
HS19111015-01			HS19111015-02			HS19111015-03			HS19111015-04	
HS19111015-05			HS19111015-06			HS19111015-07				

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

QC BATCH REPORT

Batch ID: R351223 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0					
MBLK	Sample ID: WBLKW1-112419	Units: mg/L		Analysis Date: 24-Nov-2019 18:41					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359521		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	U	0.500							
LCS	Sample ID: WLCSW1-112419	Units: mg/L		Analysis Date: 24-Nov-2019 18:57					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359522		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	19.92	0.500	20	0	99.6	90 - 110			
LCSD	Sample ID: WLCSDW1-112419	Units: mg/L		Analysis Date: 24-Nov-2019 19:14					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359523		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	19.9	0.500	20	0	99.5	90 - 110	19.92	0.126	20
MS	Sample ID: HS19111070-01MS	Units: mg/L		Analysis Date: 24-Nov-2019 19:47					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359525		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	217.8	5.00	100	120.6	97.2	80 - 120			
MS	Sample ID: HS19111008-01MS	Units: mg/L		Analysis Date: 24-Nov-2019 23:06					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359537		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	47.34	0.500	10	38.37	89.7	80 - 120			
MSD	Sample ID: HS19111070-01MSD	Units: mg/L		Analysis Date: 24-Nov-2019 20:04					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359526		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	217.7	5.00	100	120.6	97.1	80 - 120	217.8	0.0459	20

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

QC BATCH REPORT

Batch ID: R351223 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0						
MSD	Sample ID: HS19111008-01MSD	Units: mg/L			Analysis Date: 24-Nov-2019 23:23					
Client ID:	Run ID: ICS-Integrion_351223		SeqNo: 5359538		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	47.41	0.500	10	38.37	90.4	80 - 120	47.34	0.156	20	
The following samples were analyzed in this batch:										
HS19111015-01		HS19111015-02		HS19111015-03		HS19111015-04				
HS19111015-05		HS19111015-06								

ALS Houston, US

Date: 26-Nov-19

Client: Glenn Springs Holdings, Inc.
Project: 55626DM GSHI PXP Elliot E.M. Federal TB
WorkOrder: HS19111015

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

ALS Houston, US

Date: 26-Nov-19

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231	20-Dec-2021
Florida	E87611-28	30-Jun-2020
Illinois	2000322019-2	09-May-2020
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Carolina	624-2019	31-Dec-2019
North Dakota	R-193 2019-2020	30-Apr-2020
Oklahoma	2019-067	31-Aug-2020
Texas	TX104704231-19-23	30-Apr-2020

ALS Houston, US

Date: 26-Nov-19

Sample Receipt Checklist

Client Name: Glen Springs/CRA

Date/Time Received: **20-Nov-2019 08:53**

Work Order: HS19111015

Received by: **PMG**

Checklist completed by: Nilesh D. Ranchod 20-Nov-2019
eSignature Date

Reviewed by: Dane J. Wacasey 25-Nov-2019
eSignature Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	COC IDs:207287
Samplers name present on COC?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	1.2C UC/C IR # 11		
Cooler(s)/Kit(s):	43688		
Date/Time sample(s) sent to storage:	11/20/2019 20:00		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:



Chain of Custody Form

HS19111015

Page 1 of 1

COC ID: 207287

Glenn Springs Holdings, Inc.
55626DM GSHI PXP Elliot E.M. Federal TB

Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4502201559 ENV 749-402-D02-110	Project Name	GSHI PXP Elliot E.M. Federal TB	A	8260_W (BTEX)
Work Order		Project Number	55626DM (ENV749A006)	B	300_W (Chloride)
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_W (BTEX) Trip Blank
Send Report To	Mike Camona	Invoice Attn	Accounts Payable	D	
Address	PO Box 2148	Address	PO Box 2148	E	
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	F	
Phone		Phone		G	
Fax		Fax		H	
e-Mail Address	Mike.Camona@tetratech.com	e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1R	11-15-19	1410	Groundwa	1,8	4	X	X									
2	MW-2	11-15-19	1345	Groundwa	1,8	4	X	X									
3	MW-3	11-15-19	1410	Groundwa	1,8	4	X	X									
4	MW-4	11-15-19	1320	Groundwa	1,8	4	X	X									
5	MW-5	11-15-19	1305	Groundwa	1,8	4	X	X									
6	DUP	11-15-19	—	Groundwa	1,8	4	X	X									
7	Trip Blank	—	—	Water	1,8	2			X								
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Preston P. Beyerist		FedEx		☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24-hour			
Relinquished by:	Date: 11-19-19	Time: 8:53	Received by:	Notes: [GSHI PXP Elliot EM Federal TB]			
Relinquished by:	Date: Nov 20/19	Time: 8:53	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	43688	102	☒ Level II Std QC ☐ TRRP Checklist	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				☐ Level III Std QC/Row Date ☐ TRRP Level IV			
				☐ Level IV SW/43/CLP ☐ Other			

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

C/F-0

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 ALS 10450 St. Cliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CU STony SEA		Seal Broken By: C4
	Date:	5-17-20	Date:
	N. me:	555 17th	Date:
	Company:	7-17-20	Date:

TRK# 0221	1251 0291 1703	RETURNS MON-SAT PRIORITY OVERNIGHT
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District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 8280

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	8280
Action Type:	
[C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. See app ID 16685 for most updated status.	10/19/2022