PARAGON
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SENT VIA EMAIL (randy@wardoil.com)

December 10, 2021

Mr. Randy Ward
Alfred Ward & Son
P.O. Box 737
Ogallala, NE 69153

RE: Limited Subsurface Assessment
Former State 3 Well (API Number 121-05603)
COGCC Remediation Project Number 12068
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado
Paragon Project Number 1021020

Dear Mr. Ward:

The purpose of this report is to summarize the results of the limited subsurface assessment performed at the above-referenced site in September and October 2021. A copy of this report was submitted to the State Land Board. We understand that you will incorporate this report into a supplemental Form 27 for submittal to the Colorado Oil & Gas Conservation Commission (COGCC). The approximate location of the site is shown on Figures 1 and 2 attached to this report. A Site Location Diagram is attached to this report as Figure 3.

1. BACKGROUND

In the summer of 2018, water was reportedly observed near the well head. On September 20, 2018, the COGCC requested that a spill be reported and that assessment be performed to evaluate the significance of the spill. We understand that the well was plugged and abandoned in October 2018 and it appeared that a part in the well casing caused some damage of the surface conductor, allowing water to flow out of the casing. Surface equipment was also removed prior to the 2021 assessment activities.

We prepared a work plan dated August 25, 2021 outlining the planned assessment activities. The completion of soil borings and installation of groundwater monitoring wells was discussed in the proposed work plan. The work plan was approved by the COGCC on August 30, 2021. Three (3) soil borings and five (5) monitoring wells were completed at the site in September 2021 to obtain information regarding potential petroleum hydrocarbon contamination. The

approximate locations of borings B-1 through B-3 and MW-1 through MW-5 are shown on Figure 3, which is attached to this report.

2. ASSESSMENT ACTIVITIES

Three (3) soil borings (B-1 through B-3) and borings for five (5) groundwater monitoring wells (MW-1 through MW-5) were completed at the site between September 27 and September 29, 2021 to obtain information regarding potential petroleum hydrocarbon contamination in the vicinity of former State Well 3. The approximate locations of borings B-1 through B-3 and MW-1 through MW-5 are shown on Figure 3, which is attached to this report. Our field geologist logged the borings, collected samples and documented field activities during drilling operations. Soils encountered during drilling were screened on site for organic vapors with a photoionization detector (PID) to aid in evaluating potential zones of petroleum hydrocarbon contamination. Soil samples were screened using ambient temperature headspace analysis (ATHA). The ATHA procedure consisted of placing the soil samples in Ziplock bags such that the bags were approximately one-third full. The sample was allowed to equilibrate with the container headspace for approximately 15 minutes. The probe of the PID was then used to pierce the bag and the maximum observed reading was recorded. The ATHA results for soil samples screened from B-1 through B-3 and MW-1 through MW-5 are summarized in Table 1 and shown on the boring logs, which are attached to this report. As seen from Table 1, the ATHA results ranged from not observed in the parts per million (ppm) range to 1,241 ppm as organic vapor in air. It should be noted that ATHA results are a qualitative indicator of petroleum hydrocarbon contamination and should not be construed as a quantitative indicator of contamination.

Select soil samples from B-1 through B-3 and MW-1 through MW-5 were transported under our standard chain-of-custody procedures to our contract laboratory for benzene-toluene-ethylbenzene-xylenes (BTEX), naphthalene, total petroleum hydrocarbons – gasoline range organics (TPH-GRO), total petroleum hydrocarbons – diesel range organics (TPH-DRO), pH and electrical conductivity (EC) analyses. The soil samples analyzed from the site were selected for chemical analysis based on ATHA results, olfactory and visual observations, as well as the suspected location of the groundwater table. The soil sample results are discussed in Chapter 3 of this report.

Borings B-1 through B-3 were completed to depths ranging from approximately 17 to 21 feet below ground surface (bgs) while monitoring wells MW-1 through MW-5 were completed to depths ranging from approximately 19 to 22 feet bgs. The borings were advanced with 4 ¼-inch hollow-stem augers (HSA) and continuous hollow-stem sampling or split-spoon sampling techniques were used to collect soil samples from the borings. Descriptions of the soils encountered in B-1 through B-3 and MW-1 through MW-5 are included below and are

provided on the boring logs, which are attached to this report. Field logs of the soil borings were prepared by our field representative. Those logs contain visual-tactual classification of the materials encountered during drilling, as well as the driller's interpretation of subsurface conditions based on drilling resistance. Final boring logs included in this report represent an interpretation of the field logs. The stratification boundaries shown on the enclosed boring logs represent the approximate locations of changes in soil types; in-situ, the transition of materials may be gradual.

Based on the assessment work completed at the site, the subsurface soil conditions can be generally described as follows. Topsoil, silt with varying amounts of sand, and/or sand with varying amounts of silt was observed in B-1 through B-3 and MW-1 through MW-5 from the ground surface to depths ranging from approximately 3 to 11.5 feet bgs. Below the silt and sand layers, silty clay or clayey silt was observed to the bottom of the borings in B-1 through B-3 and MW-1, MW-2, MW-4 and MW-5. In MW-3, very fine sand was observed beneath a silty clay layer and extended from approximately 5 feet bgs to the bottom of the boring. Apparent bedrock was not observed in the borings, which were completed to depths of approximately 17 to 22 feet bgs. Groundwater was observed in B-1 through B-3 and MW-1 through MW-5 during drilling at depths ranging from approximately 10 to 18 feet bgs.

3. SOIL SAMPLE RESULTS

Select soil samples from B-1 through B-3 and MW-1 through MW-5 were transported under our standard chain-of-custody procedures to our contract laboratory for BTEX, naphthalene, TPH-GRO, TPH-DRO, pH and EC analyses. The soil samples analyzed from the site were selected for chemical analysis based on ATHA results, olfactory and visual observations, as well as the suspected location of the groundwater table. The analytical results for the soil samples analyzed from the site are summarized in Table 2 and on Figure 4. Copies of the laboratory reports are also attached to this report.

The Cleanup Concentrations for BTEX, naphthalene, TPH-GRO, TPH-DRO, pH and EC in soil as described in Table 915-1 of Series 900 of the COGCC Rules and Regulations are also summarized in Table 2. As seen from Table 2, the naphthalene concentrations observed in the soil samples analyzed from B-1, B-2 (4 to 6 ft. bgs), and MW-1 exceeded the COGCC 900 Series Cleanup Concentrations. The TPH-GRO concentration observed in the soil sample analyzed from 19 to 21 feet bgs in B-1 also exceeded the COGCC 900 Series Cleanup Concentration. The remaining BTEX, naphthalene, TPH-GRO and TPH-DRO concentrations observed in soil samples analyzed from B-1 through B-3 and MW-1 through MW-5 did not exceed the COGCC Cleanup Concentrations. The pH values observed in the soil samples analyzed from B-1 through B-3 and MW-1 through MW-5 were not outside of the range specified in Table 915-1 except for B-1 (14 to 16 ft. bgs), which exhibited a PH value of 8.41.

The EC values observed in five (5) of the 13 soil samples analyzed from the site exceeded the COGCC Series 900 Cleanup Concentration. The EC value observed in the soil sample analyzed from MW-2, which appears to be upgradient of the former State 3 well, was the second highest observed at the site with only the EC value from the MW-4 soil sample being higher that the MW-2 value. The soil sample from MW-4 was also be analyzed for sodium adsorption ratio (SAR) since it had the highest EC value. The SAR value in the soil sample from MW-4 was 12.3 while the COGCC Series 900 Cleanup Concentration for SAR is 6.

4. GEOHYDROLOGY

Groundwater depths were measured in MW-1 through MW-5 on October 8, 2021 and November 22, 2021. The horizontal and vertical locations of the monitoring wells were surveyed by Foresight West Surveying, Inc. on November 18, 2021. The depths to groundwater from the top-of-casings (TOCs), depths to groundwater from the ground surface, and the groundwater elevations for October 8, 2021 and November 22, 2021 are summarized in Table 3, which is attached to this report. As seen from Table 3, groundwater was observed at depths ranging from approximately 10.2 to 11.5 feet below grade in MW-1 through MW-5 on October 8 and November 22, 2021. Free-phase product was not observed in the wells accessed in October or November 2021.

Piezometric surface diagrams for groundwater elevations observed on October 8, 2021 and November 22, 2021 are attached to this letter as Figure 5a and Figure 5b, respectively. The piezometric surfaces were estimated using the Surfer® software distributed by Golden Software based on groundwater table measurements in wells MW-1 through MW-5. As seen from Figures 5a and 5b, the general groundwater flow direction on October 8, 2021 and November 22, 2021 appeared to be to the northeast and the hydraulic gradients were estimated to range from approximately 0.002 to 0.004. It should be noted that local geohydrologic characteristics such as flow direction and gradient may change due to variations in precipitation and recharge, or other conditions not evident at the time of field exploration.

5. GROUNDWATER QUALITY RESULTS

Monitoring wells MW-1 through MW-5 were developed on October 8, 2021 by surging the wells and removing at least five (5) well volumes of water. Groundwater samples were collected from MW-1 through MW-5 on October 8, 2021 using a new disposable bailer for each well. The groundwater samples were transported under our standard chain-of-custody procedures to our contract laboratory for BTEX and chloride analyses. The groundwater sample results are summarized in Table 4 and on Figure 6, which are attached to this report. A copy of the TLI laboratory report is also attached to this report. As seen from Table 4,

BTEX were not observed above their respective laboratory detection limits and chloride were observed at relatively low concentrations in the groundwater samples collected from MW-1 through MW-5 on October 8, 2021.

The Cleanup Concentrations for BTEX and chloride in groundwater as described in Table 915-1 of Series 900 of the COGCC Rules and Regulations are also summarized in Table 4. As seen from Table 4, the BTEX and chloride concentrations observed in the groundwater samples collected from MW-1 through MW-5 on October 8, 2021 did not exceed the Cleanup Concentrations.

6. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions are made based on information obtained during the additional soil assessment and remediation activities.

1. In the summer of 2018, water was reportedly observed near the well head. It appears that a part in the well casing caused some damage of the surface conductor, allowing water to flow out of the casing.

2. Three (3) soil borings and five (5) monitoring wells were completed at the site by Paragon in September 2021 to obtain information regarding potential petroleum hydrocarbon contamination.

3. The naphthalene concentrations observed in the soil samples analyzed from B-1, B-2 (4 to 6 ft. bgs), and MW-1 exceeded the COGCC 900 Series Cleanup Concentrations. The TPH-GRO concentration observed in the soil sample analyzed from 19 to 21 feet bgs in B-1 also exceeded the COGCC 900 Series Cleanup Concentration. The remaining BTEX, naphthalene, TPH-GRO and TPH-DRO concentrations observed in soil samples analyzed from B-1 through B-3 and MW-1 through MW-5 did not exceed the COGCC Cleanup Concentrations. The horizontal extent of impacted soil appears to be bracketed upgradient, crossgradient and downgradient of B-1, B-2 and MW-1.

4. Groundwater was observed at depths ranging from approximately 10.2 to 11.5 feet below grade in MW-1 through MW-5 on October 8 and November 22, 2021. Free-phase product was not observed in the wells accessed in October or November 2021.

5. The general groundwater flow direction on October 8, 2021 and November 22, 2021 appeared to be to the northeast and the hydraulic gradients were estimated to range from approximately 0.002 to 0.004.

6. The BTEX and chloride concentrations observed in the groundwater samples collected from MW-1 through MW-5 on October 8, 2021 did not exceed the Cleanup Concentrations.

The following recommendations are made based on information obtained during the soil remediation activities.

1. Remediation of the impacted soil near B-1 should be performed to reduce the potential for contaminants leaching to groundwater.

7. GENERAL COMMENTS

The analyses and opinions expressed in this report are based on data obtained from the indicated locations along with other information described in this report. This report does not reflect any variations in subsurface geohydrology or contaminant distribution which may occur between wells and or across the site. Actual subsurface conditions may vary and may not become evident without further exploration. Due to the dynamic nature of groundwater flow and contaminant migration, subsurface conditions will vary with time.

This report was prepared for the exclusive use of Alfred Ward & Son for specific application to the subject property and has been prepared in accordance with generally accepted geo-environmental engineering practices. No warranties, either express or implied, are intended or made. In the event that changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be valid unless these changes are reviewed and the opinions of this report are modified and verified in writing by Paragon.

It is a pleasure to be of service to you on this project. If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,
PARAGON CONSULTING GROUP, INC.

Scott A. Rutherford, P.E.
Colorado No. 27715

David M. Rau, P.E., BCEE
Principal Engineer

SAR/DMR:sar2

Enc: Figure 1 - General Map
Figure 2 - Vicinity Map
Figure 3 - Site Location Diagram

Figure 4 - Soil Sample Results Diagram
Figure 5a - Piezometric Surface Diagram (October 8, 2021)
Figure 5b - Piezometric Surface Diagram (November 22, 2021)
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Table 1 - Summary of Field ATHA Results
Table 2 - Summary of Soil Analytical Results
Table 3 - Summary of Monitoring Well Data and Groundwater Elevations
Table 4 - Summary of Groundwater Quality Analytical Results
Boring Logs and General Notes
Laboratory Reports

cc: Mr. Steve Freese/State Land Board (via email)

(FTC)N:\2021\PROJECTS\1021020\REPORT\1021020 FORMER STATE 3 WELL LSA DRAFT.RPT.DOCX

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Figure 1 General Location Map
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W, Washington County, Colorado
Project No. 1021020 December 6, 2021 Drawn by PJH(20fig1)

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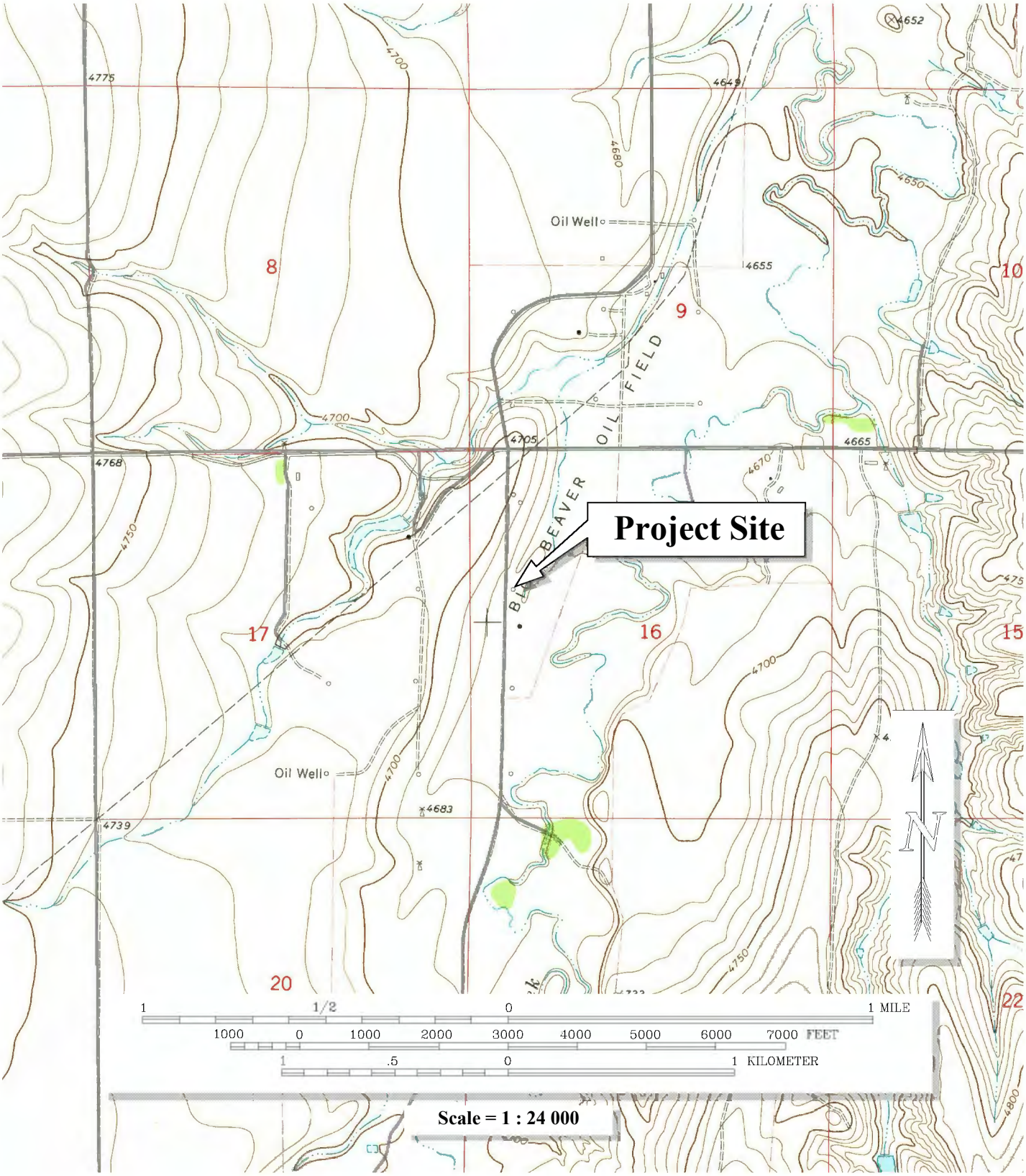

Figure 2 Vicinity Map
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W, Washington County, Colorado
Project No. 1021020 December 9, 2021 Drawn by PJH(20fig2)

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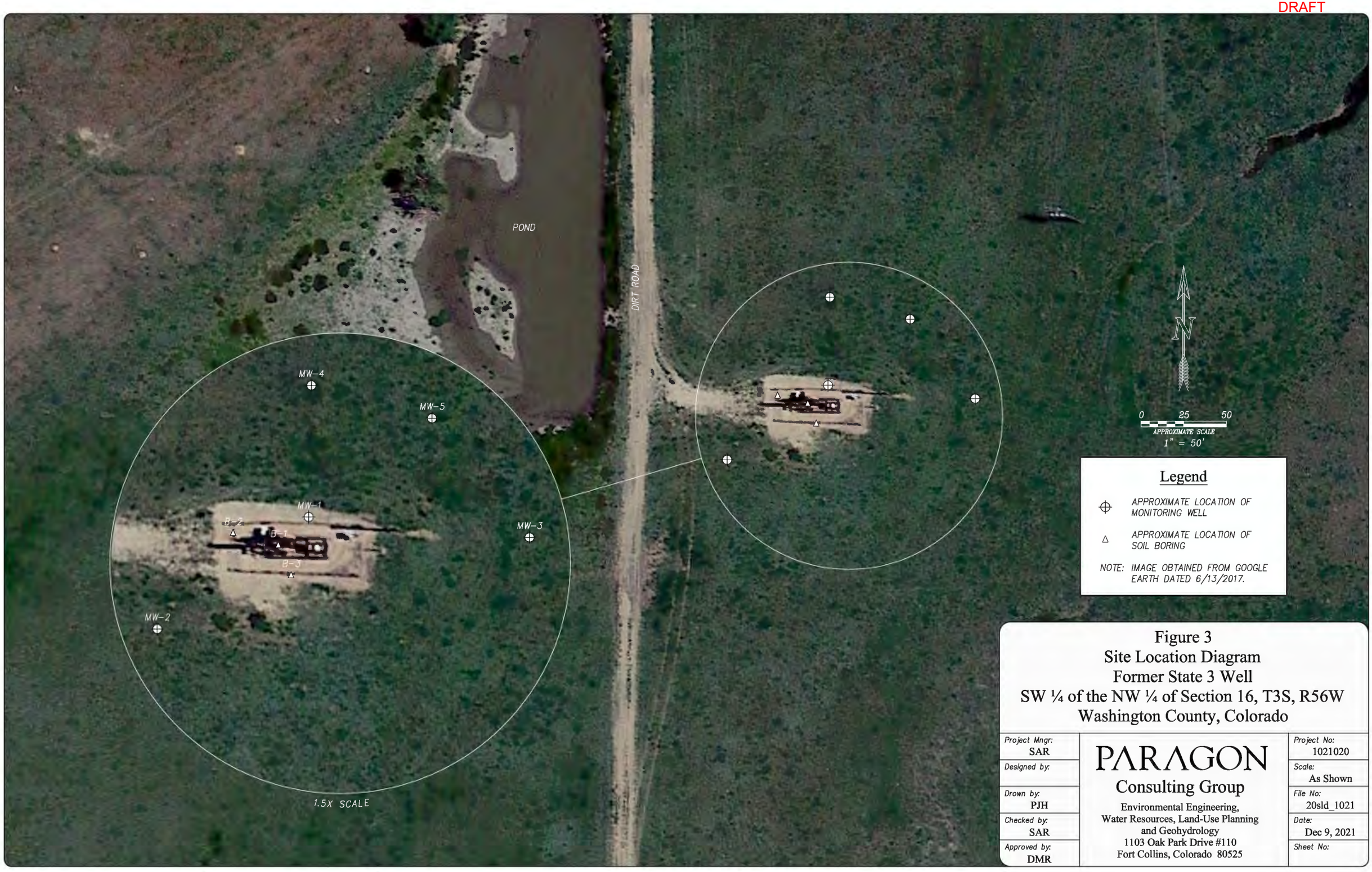

Legend

- ⊕ APPROXIMATE LOCATION OF MONITORING WELL
- △ APPROXIMATE LOCATION OF SOIL BORING

NOTE: IMAGE OBTAINED FROM GOOGLE EARTH DATED 6/13/2017.

Figure 3
Site Location Diagram
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado

Project Mngr: SAR	PARAGON Consulting Group	Project No: 1021020
Designed by:		Scale: As Shown
Drown by: PJH		File No: 20sld_1021
Checked by: SAR		Date: Dec 9, 2021
Approved by: DMR		Sheet No:

Environmental Engineering,
Water Resources, Land-Use Planning
and Geohydrology
1103 Oak Park Drive #110
Fort Collins, Colorado 80525

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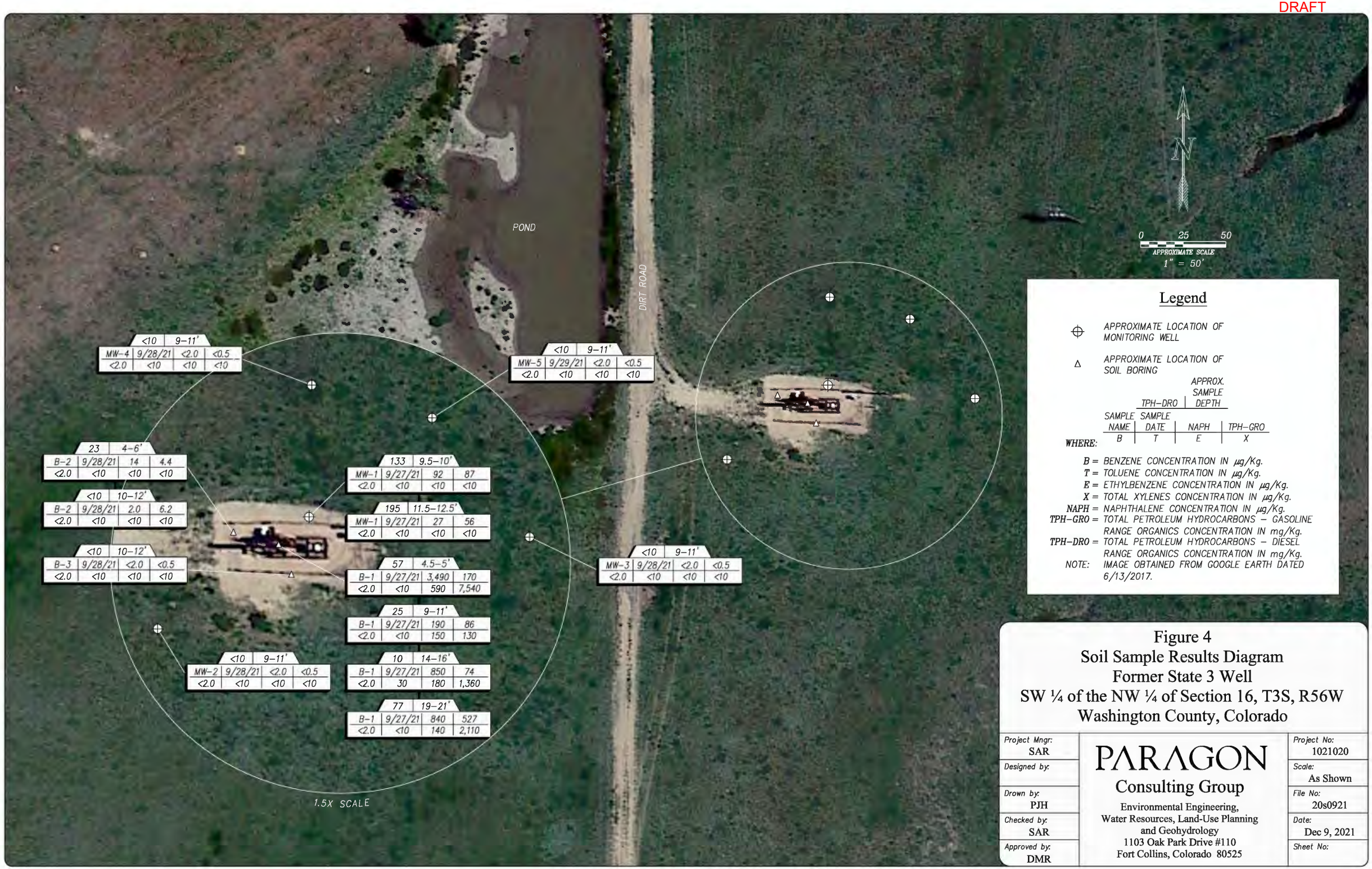

Legend

⊕ APPROXIMATE LOCATION OF MONITORING WELL

△ APPROXIMATE LOCATION OF SOIL BORING

SAMPLE NAME	SAMPLE DATE	NAPH	TPH-GRO	TPH-DRO	APPROX. SAMPLE DEPTH
B	T	E	X		

WHERE:

B = BENZENE CONCENTRATION IN µg/Kg.
T = TOLUENE CONCENTRATION IN µg/Kg.
E = ETHYLBENZENE CONCENTRATION IN µg/Kg.
X = TOTAL XYLENES CONCENTRATION IN µg/Kg.
NAPH = NAPHTHALENE CONCENTRATION IN µg/Kg.
TPH-GRO = TOTAL PETROLEUM HYDROCARBONS – GASOLINE RANGE ORGANICS CONCENTRATION IN mg/Kg.
TPH-DRO = TOTAL PETROLEUM HYDROCARBONS – DIESEL RANGE ORGANICS CONCENTRATION IN mg/Kg.
NOTE: IMAGE OBTAINED FROM GOOGLE EARTH DATED 6/13/2017.

Figure 4
Soil Sample Results Diagram
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado

Project Mngr: SAR	PARAGON Consulting Group	Project No: 1021020
Designed by:		Scale: As Shown
Drown by: PJH	Environmental Engineering, Water Resources, Land-Use Planning and Geohydrology	File No: 20s0921
Checked by: SAR	1103 Oak Park Drive #110	Date: Dec 9, 2021
Approved by: DMR	Fort Collins, Colorado 80525	Sheet No:

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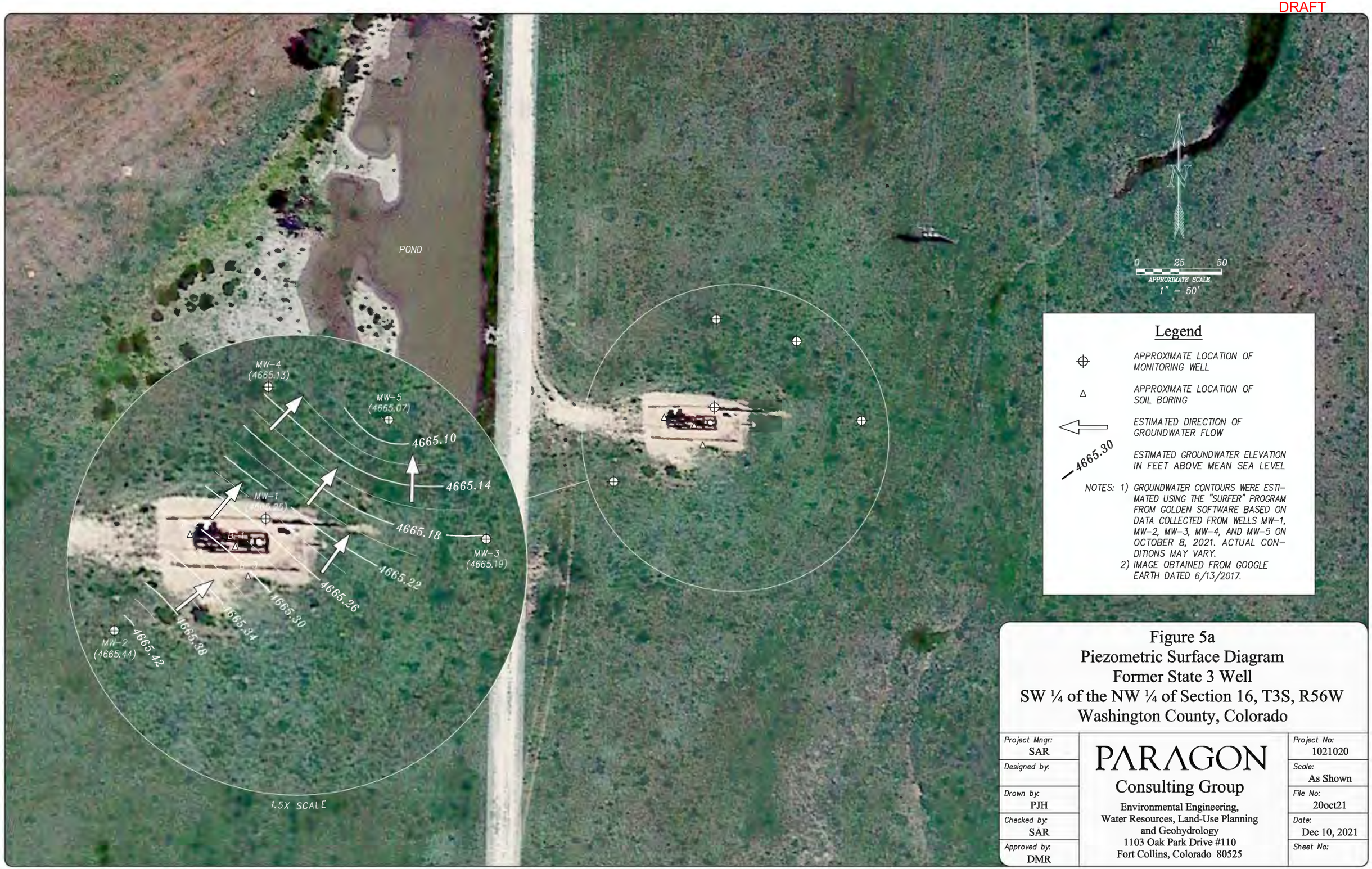

Legend

- APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE LOCATION OF SOIL BORING
- ESTIMATED DIRECTION OF GROUNDWATER FLOW
- 4665.30 — ESTIMATED GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL

NOTES:
1) GROUNDWATER CONTOURS WERE ESTIMATED USING THE "SURFER" PROGRAM FROM GOLDEN SOFTWARE BASED ON DATA COLLECTED FROM WELLS MW-1, MW-2, MW-3, MW-4, AND MW-5 ON OCTOBER 8, 2021. ACTUAL CONDITIONS MAY VARY.
2) IMAGE OBTAINED FROM GOOGLE EARTH DATED 6/13/2017.

Figure 5a
Piezometric Surface Diagram
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado

Project Mngr: SAR	PARAGON Consulting Group	Project No: 1021020
Designed by:		Scale: As Shown
Drawn by: PJH	Environmental Engineering, Water Resources, Land-Use Planning and Geohydrology	File No: 20oct21
Checked by: SAR	1103 Oak Park Drive #110	Date: Dec 10, 2021
Approved by: DMR	Fort Collins, Colorado 80525	Sheet No:

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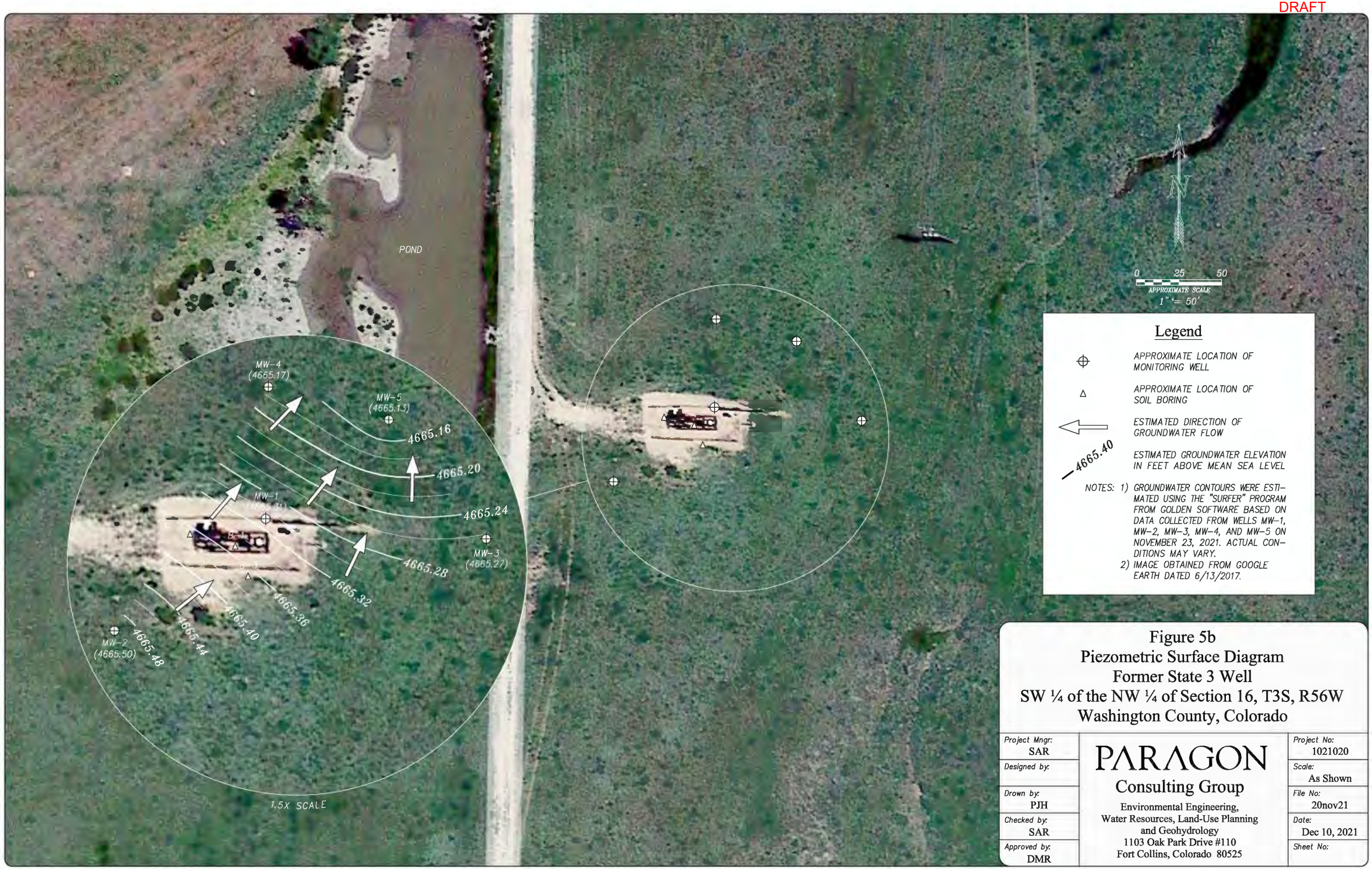

Legend

- APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE LOCATION OF SOIL BORING
- ESTIMATED DIRECTION OF GROUNDWATER FLOW
- 4665.40 — ESTIMATED GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL

NOTES:
1) GROUNDWATER CONTOURS WERE ESTIMATED USING THE "SURFER" PROGRAM FROM GOLDEN SOFTWARE BASED ON DATA COLLECTED FROM WELLS MW-1, MW-2, MW-3, MW-4, AND MW-5 ON NOVEMBER 23, 2021. ACTUAL CONDITIONS MAY VARY.
2) IMAGE OBTAINED FROM GOOGLE EARTH DATED 6/13/2017.

Figure 5b
Piezometric Surface Diagram
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado

Project Mngr: SAR	PARAGON Consulting Group	Project No: 1021020
Designed by:		Scale: As Shown
Drawn by: PJH		File No: 20nov21
Checked by: SAR		Date: Dec 10, 2021
Approved by: DMR		Sheet No:

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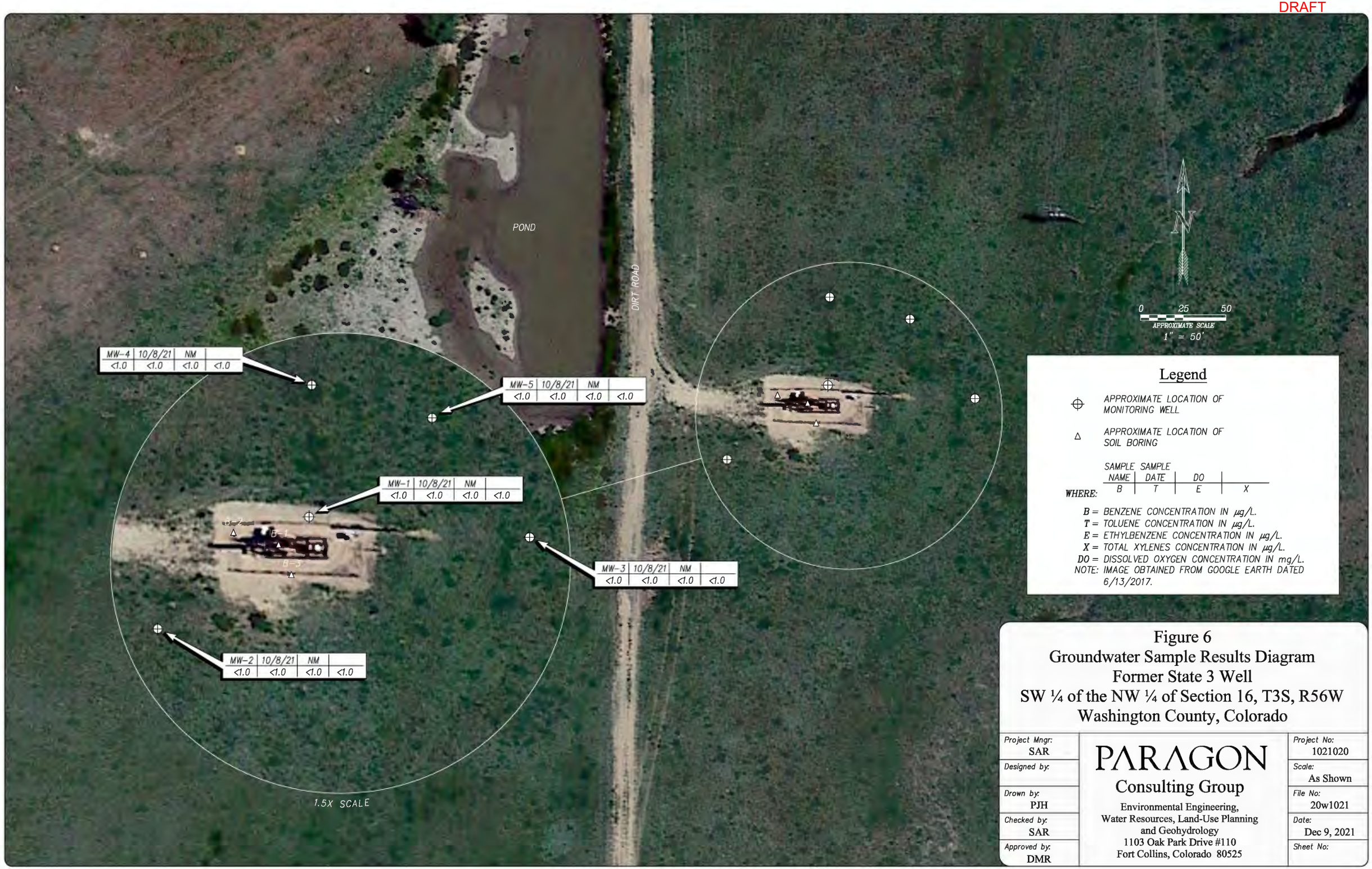

Legend

⊕ APPROXIMATE LOCATION OF MONITORING WELL

△ APPROXIMATE LOCATION OF SOIL BORING

SAMPLE NAME	SAMPLE DATE	DO	
B	T	E	X

WHERE:

B = BENZENE CONCENTRATION IN µg/L.
T = TOLUENE CONCENTRATION IN µg/L.
E = ETHYLBENZENE CONCENTRATION IN µg/L.
X = TOTAL XYLENES CONCENTRATION IN µg/L.
DO = DISSOLVED OXYGEN CONCENTRATION IN mg/L.
NOTE: IMAGE OBTAINED FROM GOOGLE EARTH DATED 6/13/2017.

Figure 6
Groundwater Sample Results Diagram
Former State 3 Well
SW ¼ of the NW ¼ of Section 16, T3S, R56W
Washington County, Colorado

Project Mngr: SAR	PARAGON Consulting Group	Project No: 1021020
Designed by:		Scale: As Shown
Drown by: PJH		File No: 20w1021
Checked by: SAR		Date: Dec 9, 2021
Approved by: DMR		Sheet No:

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TABLE 1
SUMMARY OF FIELD ATHA RESULTS
(Page 1 of 1)

PROJECT NAME: Former State 3 Well
PROJECT LOCATION: Sec. 16, T3S, R56W, Washington County, Colorado
PROJECT NUMBER: 1021020

Sample Name	Sample Date	Approximate Sample Depth (ft)	PID Reading (ppm as organic vapor in air)
B-1	09/27/21	4 to 5.5	**321**
B-1	09/27/21	9 to 11	**1,241**
B-1	09/27/21	14 to 16	**940**
B-1	09/27/21	19 to 21	**17**
B-2	09/28/21	4 to 6	**54**
B-2	09/28/21	10 to 12	**40**
B-2	09/28/21	15 to 17	2
B-3	09/28/21	5 to 7	ND
B-3	09/28/21	10 to 12	**4**
B-3	09/28/21	15 to 17	1
MW-1	09/27/21	1 to 2	ND
MW-1	09/27/21	4 to 4.5	3
MW-1	09/27/21	8.5 to 9.5	14
MW-1	09/27/21	9.5 to 10	**610**
MW-1	09/27/21	11.5 to 12.5	**5**
MW-1	09/27/21	16.5 to 17.5	2
MW-1	09/27/21	18 to 19	ND
MW-2	09/28/21	4 to 6	ND
MW-2	09/28/21	9 to 11	**ND**
MW-2	09/28/21	14 to 16	1
MW-2	09/28/21	19 to 21	ND
MW-3	09/28/21	4 to 6	ND
MW-3	09/28/21	9 to 11	**1**
MW-3	09/28/21	14 to 16	ND
MW-4	09/28/21	4 to 6	ND
MW-4	09/28/21	9 to 11	**1**
MW-4	09/28/21	14 to 16	1
MW-5	09/29/21	4 to 6	ND
MW-5	09/29/21	9 to 11	**1**
MW-5	09/29/21	14 to 16	1

Notes:

1. Approximate sample locations are shown on Figure 3.
2. ATHA = Ambient Temperature Headspace Analysis.
3. PID = Photoionization Detector.
4. ppm = parts per million.
5. ND = Not Detected in the ppm range.
5. NR = No Recovery.
6. ATHA results are a qualitative indicator of petroleum hydrocarbon contamination and should not be interpreted as a quantitative indicator of contamination.
7. A **Bold** value indicates a sample that was submitted for laboratory analyses.

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TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS

PROJECT NAME: Former State 3 Well
PROJECT LOCATION: Sec. 16, T3S, R56W, Washington County, Colorado
PROJECT NUMBER: 1021020

Sample Name	Sample Date	Approximate Sample Depth (ft)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl benzene (µg/Kg)	Total Xylenes (µg/Kg)	Naphthalene (µg/Kg)	TPH-GRO (mg/Kg)	TPH-DRO (mg/Kg)	pH (std units)	Electrical Conductivity (µS/cm)
B-1	9/27/2021	4 to 5.5	<2.	<10.	590.	7,540.	**3,490.**	170.	57.3	7.89	1,120.
B-1	9/27/2021	9 to 11	<2.	<10.	150.	130.	**190.**	85.6	25.3	7.86	3,638.
B-1	9/27/2021	14 to 16	<2.	30.	180.	1,360.	**850.**	73.6	10.3	**8.41**	1,544.
B-1	9/27/2021	19 to 21	<2.	<10.	140.	2,110.	**840.**	**527.**	77.1	8.16	669.
B-2	09/28/21	4 to 6	<2.	<10.	<10.	<10.	**14.**	4.36	23.3	8.25	454.
B-2	09/28/21	10 to 12	<2.	<10.	<10.	<10.	2.	6.15	<10.	7.72	**4,494.**
B-3	09/28/21	10 to 12	<2.	<10.	<10.	<10.	<2.	<0.5	<10.	7.41	3,034.
MW-1	09/27/21	9.5 to 10	<2.	<10.	<10.	<10.	**92.**	86.9	133.	6.95	1,447.
MW-1	09/27/21	11.5 to 12.5	<2.	<10.	<10.	<10.	**27.**	56.1	195.	7.91	2,235.
MW-2	09/28/21	9 to 11	<2.	<10.	<10.	<10.	<2.	<0.5	<10.	7.55	**5,266.**
MW-3	09/28/21	9 to 11	<2.	<10.	<10.	<10.	<2.	<0.5	<10.	7.61	**4,996.**
MW-4	09/28/21	9 to 11	<2.	<10.	<10.	<10.	<2.	<0.5	<10.	7.84	**7,366.**
MW-5	09/29/21	9 to 11	<2.	<10.	<10.	<10.	<2.	<0.5	<10.	7.76	**4,155.**
900 Series Cleanup Concentrations			2.6	690.	780.	9,900.	3.8	500.	500.	6 to 8.3	4,000.

Notes:

1. Approximate sample locations are shown on Figure 4.
2. TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics.
3. TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics.
4. µg/Kg = micrograms per kilogram.
5. mg/Kg = milligrams per kilogram.
6. < = Less than the laboratory detection limit.
7. 900 Series Cleanup Concentrations for soils are described in Table 915-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations effective January 15, 2021.
8. **Bold** indicates an exceedance of the Cleanup Concentrations.

PARAGON

TABLE 3
SUMMARY OF MONITORING WELL DATA AND GROUNDWATER ELEVATIONS
(Page 1 of 1)

PROJECT NAME: Former State 3 Well
PROJECT LOCATION: Sec. 16, T3S, R56W, Washington County, Colorado
PROJECT NUMBER: 1021020

Well Name	MW-1	MW-2	MW-3	MW-4	MW-5
Installation Date	9/27/2021	9/28/2021	9/28/2021	9/28/2021	9/29/2021
Total Depth (feet bgs)	22.0	21.0	19.0	19.0	19.0
Screened Interval (feet bgs)	7 to 22	4 to 19	4 to 19	4 to 19	4 to 19
Ground Elevation (feet AMSL)	4,676.70	4,676.50	4,675.50	4,675.90	4,676.00
TOC Elevation (ft. AMSL)	4,679.34	4,679.38	4,678.60	4,678.53	4,678.95
Date Measured: October 8, 2021					
Depth to Water (feet from TOC)	14.09	13.94	13.41	13.40	13.88
Depth to Water (feet bgs)	11.45	11.06	10.31	10.77	10.93
Water Elevation (feet AMSL)	4,665.25	4,665.44	4,665.19	4,665.13	4,665.07
Date Measured: November 23, 2021					
Depth to Water (feet from TOC)	14.03	13.88	13.33	13.36	13.82
Depth to Water (feet bgs)	11.39	11.00	10.23	10.73	10.87
Water Elevation (feet AMSL)	4,665.31	4,665.50	4,665.27	4,665.17	4,665.13

NOTES:

1) Approximate well locations are shown on Figure 5.
2) bgs = below ground surface.
3) AMSL = Above Mean Sea Level. Ground and well casing elevations were surveyed by Foresight West Surveying, Inc. in November 2021.
4) TOC = Top of Casing.

TABLE 4
SUMMARY OF GROUNDWATER QUALITY ANALYTICAL RESULTS

PROJECT NAME: Former State 3 Well
PROJECT LOCATION: Sec. 16, T3S, R56W, Washington County, Colorado
PROJECT NUMBER: 1021020

Sample Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Chloride (mg/L)
MW-1	10/08/21	<1.	<1.	<1.	<1.	192.
MW-2	10/08/21	<1.	<1.	<1.	<1.	85.3
MW-3	10/08/21	<1.	<1.	<1.	<1.	200.
MW-4	10/08/21	<1.	<1.	<1.	<1.	50.2
MW-5	10/08/21	<1.	<1.	<1.	<1.	164.
900 Series Cleanup Concentrations		5.	560.	700.	1,400.	250.

Notes:

1. Approximate sample locations are shown on Figure 6.
2. µg/L = micrograms per liter.
3. mg/L = milligrams per liter.
4. < = Less than the laboratory detection limit.
5. 900 Series Cleanup Concentrations for GROUNDWATER are described in Table 915-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations effective January 15, 2021.
6. **Bold** indicates an exceedance of the Cleanup Concentrations.

DRAFT

Log of Boring No. B-1

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

GRAPHIC LOG	DESCRIPTION	DEPTH (FT.)	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY	SAMPLES SPT-N BLOWS/FT	TESTS ATHA RESULTS (PPM)	TESTS SOIL SAMPLE SENT TO LABORATORY
	GROUND SURFACE ELEV.								
	1.0 Sandy Silt Trace Gravel Light Brown				HS				
	3.0 Very Fine Sandy Silt Light Gray to Brown								
	Silty Clay Dark Gray Hydrocarbon Odor @ 3.0'	5		1	SS	14"	PUSH	321	X
	9.0 Less Hydrocarbon Odor @ 7.5'				HS				
	Silty Clay Gray to Brown Strong Hydrocarbon Odor @ 9.0' ▼	10		2	SS	24"	6	1,241	X
					HS				
	17.0	15		3	SS	20"	4	940	X
	Silty Clay Light Gray to Brown Some Hydrocarbon Odor ▽				HS				
	21.0	20		4	SS	15"	14	17	X
	Bottom of Boring	25							
		30							

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"

WATER LEVEL OBSERVATIONS		
WL	▽ 18.0' WD	▼ 11.0' 9/28/21
WL		
WL		

PARAGON

BORING STARTED	9/27/21		
BORING COMPLETED	9/27/21		
RIG	CME-75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. B-2

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

GROUND SURFACE ELEV.

GRAPHIC LOG	DESCRIPTION	DEPTH (FT.)	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY	SAMPLES SPT-N BLOWS/FT	TESTS ATHA RESULTS (PPM)	TESTS SOIL SAMPLE SENT TO LABORATORY
	1.0 Sandy Silt, Light Brown				HS				
	Silty Very Fine Sand, Brown, 4.0								
	Silty Very Fine Sand, Light Grayish Brown, Slight Hydrocarbon Odor @ 4.0', 10.0	5		1	SS	15"	7	54	X
					HS				
	11.5 Clayey Silt, Brown, Slight Hydrocarbon Odor @ 10.0'	10		2	SS	20"	5	40	X
					HS				
	Silty Clay, Brown, No Hydrocarbon Odor, Saturated @ 15.5', 17.0	15		3	SS	24"	2	2	
	Bottom of Boring	20							
		25							
		30							

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"

WATER LEVEL OBSERVATIONS			
WL	▽ 14.0'	WD	▼ AB
WL			
WL			

PARAGON

BORING STARTED	9/28/21		
BORING COMPLETED	9/28/21		
RIG	CME-75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. B-3

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

GROUND SURFACE ELEV.

DESCRIPTION	DEPTH (FT.)	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY	SAMPLES SPT-N BLOWS/FT	TESTS ATHA RESULTS (PPM)	TESTS SOIL SAMPLE SENT TO LABORATORY
Sandy Silt Trace Gravel Light Brown				HS				
1.5								
Very Fine Sand Trace Silt Brown	5		1	SS	20"	6	ND	
				HS				
9.0								
Silty Clay Brown Very Moist @ 11.5' No Hydrocarbon Odor	10		2	SS	24"	6	4	X
				HS				
15.0								
Silty Clay Gray to Dark Gray No Hydrocarbon Odor	15		3	SS	22"	4	1	
17.0								
Bottom of Boring	20							
ND = Not Detected in the Parts per Million Range.	25							
	30							

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"

WATER LEVEL OBSERVATIONS		
WL	▽ 14.0' WD	▼ AB
WL		
WL		

PARAGON

BORING STARTED	9/28/21		
BORING COMPLETED	9/28/21		
RIG	CME-75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. MW-1

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

TOP OF CASING (TOC) 4679.34 ft
GROUND SURFACE ELEV. 4676.7 ft

Depth (ft)	Description	USCS Symbol	Number	Type	Recovery	SPT-N Blows/ft	ATHA Results (PPM)	Soil Sample Sent to Laboratory
0	Silty Sand Trace Gravel, Light Brown		1	SSHC	50"			
1.0	Silt Trace Clay Trace Very Fine Sand, Light Brown to Gray						ND	
	Silt Trace Very Fine Sand, Tan						3	
5			2	SSHC	40"			
7.5	Silt Very Fine Sand, Brown, Moist @ 9.0'						14	
9.5	Silty Very Fine Sand, Dark Gray to Gray, Hydrocarbon Odor @ 9.5'		3	SSHC	60"		610	X
10							5	X
11.5	Clayey Silt, Gray to Brown, No Hydrocarbon Odor							
15			4	SSHC	42"		2	
15.0	Clayey Silt, Brown, Wet @ 16.8', No Hydrocarbon Odor						ND	
18.0	Clayey Silt, Light Gray, No Hydrocarbon Odor		5	SSHC				
20								
22.0	Bottom of Boring							
25								
30								

ND = Not Detected in the Parts per Million Range.

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"
WELL DIA. 2.0"

WATER LEVEL OBSERVATIONS		
WL	▽ 16.5' WD	▼ 11.0' 9/28/21
WL		
WL	▼ 14.09' from TOC 10/8/21	

PARAGON

BORING STARTED	9/27/21
BORING COMPLETED	9/27/21
RIG CME-75	LOGGED BCW
APPROVED SAR	JOB# 1021020

DRAFT

Log of Boring No. MW-2

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

TOP OF CASING (TOC) 4679.38 ft
GROUND SURFACE ELEV. 4676.5 ft

GRAPHIC LOG	DESCRIPTION	WELL DETAIL	DEPTH (FT.)	USCS SYMBOL	NUMBER	TYPE	RECOVERY	SPT–N BLOWS/FT	ATHA RESULTS (PPM)	SOIL SAMPLE SENT TO LABORATORY
	Topsoil					HS				
	Very Fine Sandy Silt Light Brown									
3.0										
	Silty Very Fine Sand Light Brown		5		1	SS	23"	4	ND	
6.0						HS				
	Silty Clay Light Brown		10		2	SS	23"	5	ND	X
						HS				
			15		3	SS	24"	3	1	
						HS				
22.0			20		4	SS	24"	10	ND	
	Bottom of Boring		25							
	ND = Not Detected in the Parts per Million Range.		30							

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"
WELL DIA. 2.0"

WATER LEVEL OBSERVATIONS		
WL	▽ 10.0' WD	▼ 12.0' AB
WL		
WL	▼ 13.94' from TOC 10/8/21	

PARAGON

BORING STARTED	9/28/21		
BORING COMPLETED	9/28/21		
RIG	CME–75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. MW-3

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

TOP OF CASING (TOC) 4678.60 ft
GROUND SURFACE ELEV. 4675.5 ft

DEPTH (FT.)	USCS SYMBOL	NUMBER	TYPE	RECOVERY	SPT–N BLOWS/FT	ATHA RESULTS (PPM)	SOIL SAMPLE SENT TO LABORATORY
			HS				
5		1	SS	23"	11	ND	
			HS				
10		2	SS	24"	5	1	X
			HS				
15		3	SS	24"	8	ND	
			HS				
20							
25							
30							

Topsoil

Silt Trace Very Fine Sand
Brown
3.5'

Silt Clay
Brown
5.0

Very Fine Sand
Brown

19.0

Bottom of Boring

ND = Not Detected in the Parts per Million Range.

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"
WELL DIA. 2.0"

WATER LEVEL OBSERVATIONS			
WL	▽ 10.8' WD	▼	AB
WL			
WL	▼ 13.41' from TOC 10/8/21		

PARAGON

BORING STARTED	9/28/21		
BORING COMPLETED	9/28/21		
RIG	CME–75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. MW-4

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

TOP OF CASING (TOC) 4678.53 ft
GROUND SURFACE ELEV. 4675.9 ft

DESCRIPTION	DEPTH (FT.)	USCS SYMBOL	NUMBER	TYPE	RECOVERY	SPT–N BLOWS/FT	ATHA RESULTS (PPM)	SOIL SAMPLE SENT TO LABORATORY
Topsoil				HS				
Very Fine Sandy Silt, Brown	3.5							
Very Fine Sand Trace Silt, Brown			1	SS	22"	6	ND	
	5			HS				
Silty Clay, Brown, No Hydrocarbon Odor	8.5		2	SS	24"	5	1	X
	10			HS				
Silty Clay Trace Very Fine Sand, Light Brown to Brown	13.5		3	SS	24"	5	1	
	15			HS				
	19.0							
Bottom of Boring	20							
ND = Not Detected in the Parts per Million Range.	25							
	30							

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"
WELL DIA. 2.0"

WATER LEVEL OBSERVATIONS		
WL	▽ 10.5' WD	▼ AB
WL		
WL	▼ 13.40' from TOC 10/8/21	

PARAGON

BORING STARTED	9/28/21		
BORING COMPLETED	9/28/21		
RIG	CME–75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

DRAFT

Log of Boring No. MW-5

CLIENT: Alfred Ward & Son

SITE NAME: Former State 3 Well

SITE ADDRESS: SW¼ of the NW¼ of Section 16, T3S, R56W Washington County, Colorado

TOP OF CASING (TOC) 4678.95 ft
GROUND SURFACE ELEV. 4676.0 ft

DEPTH (FT.)	USCS SYMBOL	NUMBER	TYPE	RECOVERY	SPT–N BLOWS/FT	ATHA RESULTS (PPM)	SOIL SAMPLE SENT TO LABORATORY	DESCRIPTION
			HS					Topsoil
								Silt Light Brown
3.0								
		1	SS	15"	5	ND		Silty Very Fine Sand Light Brown
5			HS					
8.5								
		2	SS	24"	4	1	X	Silty Clay Trace Very Fine Sand Light Brown
10			HS					
		3	SS	24"	4	1		
15			HS					
19.0								
20								Bottom of Boring
25								ND = Not Detected in the Parts per Million Range.
30								

The stratification lines represent the approximate boundary lines between rock types; in-situ the transition may be gradual.

BOREHOLE DIA. 8.5"
WELL DIA. 2.0"

WATER LEVEL OBSERVATIONS			
WL	▽ 10.3'	WD	▼ AB
WL			
WL	▼ 13.88' from TOC 10/8/21		

PARAGON

BORING STARTED	9/29/21		
BORING COMPLETED	9/29/21		
RIG	CME–75	LOGGED	BCW
APPROVED	SAR	JOB#	1021020

GENERAL NOTES
DRILLING AND EXPLORATION

DRILLING & SAMPLING SYMBOLS:

SS : Split Spoon - 1" I.D., 2" O.D., unless otherwise noted
ST : Thin-Walled Tube - 2" O.D., unless otherwise noted
PA : Power Auger
HA : Hand Auger
DB : Diamond Bit = 4", N, B
AS : Auger Sample
HS : Hollow Stem Auger
WB : Wash Bore
PS : Piston Sample
WS : Wash Sample
FT : Fish Tail Bit
RB : Rock Bit
BS : Bulk Sample
PM : Pressure Meter
DC : Dutch Cone
DP : Direct Push

Penetration Test: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. split spoon, except where noted.

WATER LEVEL MEASUREMENT SYMBOLS:

WL : Water Level
WCI : Wet Cave in
DCI : Dry Cave in
AB : After Boring
WS : While Sampling
WD : While Drilling
BCR : Before Casing Removal
ACR : After Casting Removal

Water levels indicated on the boring logs are the levels measured in the borings at the time indicated. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels is not possible with only short term observations.

DESCRIPTIVE SOIL CLASSIFICATION:

Soil Classification is based on the Unified Soil Classification system and the ASTM Designations D-2487 and D-2488. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; they are described as:boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: clays, if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse grained soils are defined on the basis of their relative in-place density and fine grained soils on the basis of their consistency. Example: Lean clay with sand, trace gravel, stiff (CL); silty sand, trace gravel, medium dense (SM).

CONSISTENCY OF FINE-GRAINED SOILS:

Unconfined Compressive Strength, Qu, psf	Consistency
< 500	Very Soft
500 - 1,000	Soft
1,001 - 2,000	Medium
2,001 - 4,000	Stiff
4,001 - 8,000	Very Stiff
8,001 -16,000	Very Hard

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) (of Components Also Present in Sample)	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) (of Components Also Present in Sample)	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

RELATIVE DENSITY OF COARSE-GRAINED SOILS:

N-Blows/ft.	Relative Density
0-3	Very Loose
4-9	Loose
10-29	Medium Dense
30-49	Dense
50-80	Very Dense
80+	Extremely Dense

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Size Range
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75mm)
Sand	#4 to #200 sieve(4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Soil Classification	
					Group Symbol	Group Name[B]
Coarse-Grained Soils more than 50% retained on No. 200 sieve	Gravels more than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	Cu ≥ 4 and 1 ≤ Cc ≤3[E]		GW	Well-graded gravel[F]
			Cu < 4 and/or 1 > Cc > 3[E]		GP	Poorly graded gravel[F]
		Gravels with Fines more than 12% fines[C]	Fines classify as ML or MH		GM	Silty gravel,G,H
			Fines classify as CL or CH		GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[E]	Cu ≥ 6 and 1 ≤ Cc ≤ 3[E]		SW	Well-graded sand[I]
			Cu < 6 and/or 1 > Cc > 3[E]		SP	Poorly graded sand[I]
		Sands with Fines more than 12% fines[D]	Fines classify as ML or MH		SM	Silty sand[G,H,I]
			Fines Classify as CL or CH		SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	PI > 7 and plots on or above "A line[J]		CL	Lean clay[K,L,M]
			PI < 4 or plots below "A" line[J]		ML	Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OL	Organic clay[K,L,M,N]
			Liquid limit - not dried			Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line		CH	Fat clay[K,L,M]
			PI lots below "A" line		MH	Elastic Silt[K,L,M]
		organic	Liquid limit - oven dried	< 0.75	OH	Organic clay[K,L,M,P]
			Liquid limit - not dried			Organic silt[K,L,M,Q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor				PT	Peat

ABased on the material passing the 3-in. (75-mm) sieve

[B]If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C]Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

[D]Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

[E] $Cu = D_{60} / D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

[F]If soil contains ≥ 15% sand, add "with sand" to group name.

[G]If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H]If fines are organic, add "with organic fines" to group name.

[I]If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J]If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K]If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel", whichever is predominant.

[L]If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

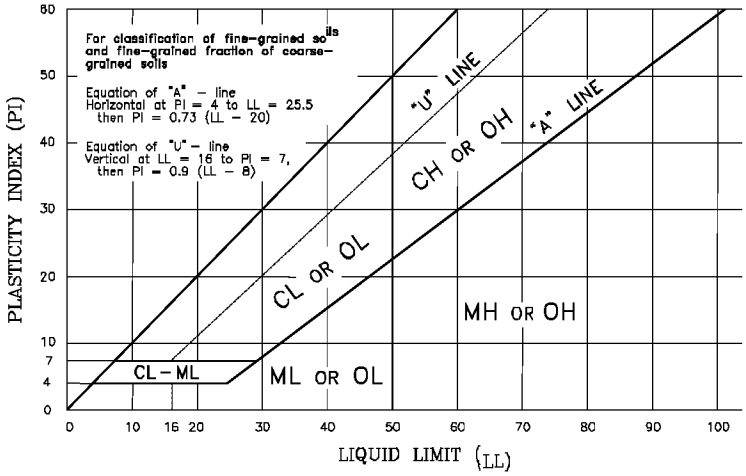
[M]If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N]PI ≥ 4 and plots on or above "A" line.

[O]PI < 4 or plots below "A" line.

[P]PI plots on or above "A" line.

[Q]PI plots below "A" line.



PARAGON

DRAFT

TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 09/30/21
Matrix: Soil
Project No.: 1021020

Lab ID	Sample ID	Date Sampled	Date Analyzed	Benzene mg/Kg	Toluene mg/Kg	Ethylbenzene mg/Kg	Total Xylenes mg/Kg	Naphthalene mg/Kg	GRO (TVPH) mg/Kg
C2479-01	MW-1 9.5-10	09/27/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	0.092	86.9
C2479-02	MW-1 11.5-12.5	09/27/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	0.027	56.1
C2479-03	B-1 4-5.5	09/27/21	10/12/21	< 0.002	< 0.01	0.59	7.54	3.49	170
C2479-04	B-1 9-11	09/27/21	10/05/21	< 0.002	< 0.01	0.15	0.13	0.19	85.6
C2479-05	B-1 14-16	09/27/21	10/12/21	< 0.002	0.03	0.18	1.36	0.85	73.6
C2479-06	B-1 19-21	09/27/21	10/05/21	< 0.002	< 0.01	0.14	2.11	0.84	527
C2479-07	B-2 4-6	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	0.014	4.36
C2479-08	B-2 10-12	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	0.002	6.15
C2479-09	B-3 10-12	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	< 0.002	< 0.5
C2479-10	MW-2 9-11	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	< 0.002	< 0.5
C2479-11	MW-3 9-11	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	< 0.002	< 0.5
C2479-12	MW-4 9-11	09/28/21	10/05/21	< 0.002	< 0.01	< 0.01	< 0.01	< 0.002	< 0.5
C2479-13	MW-5 9-11	09/29/21	10/06/21	< 0.002	< 0.01	< 0.01	< 0.01	< 0.002	< 0.5

BTEXNG Method: EPA-8260B

Katrina L. Alsum
Laboratory Director
Technology Laboratory, Inc.

The results contained in this report relate only to those items tested.

DRAFT

TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

QA/QC SURROGATE RECOVERY

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 09/30/21
Matrix: Soil
Project No.: 1021020

(% Recovery)

Lab ID	Sample ID	Bromofluorobenzene Limits (70-113%)	Dibromofluoromethane Limits (68-120%)	Toluene-d8 Limits (81-128%)
C2479-01	MW-1 9.5-10	94	99	93
C2479-02	MW-1 11.5-12.5	93	99	93
C2479-03	B-1 4-5.5	88	85	112
C2479-04	B-1 9-11	90	96	93
C2479-05	B-1 14-16	85	85	112
C2479-06	B-1 19-21	77	98	101
C2479-07	B-2 4-6	93	100	89
C2479-08	B-2 10-12	94	96	91
C2479-09	B-3 10-12	95	96	93
C2479-10	MW-2 9-11	96	98	89
C2479-11	MW-3 9-11	95	98	89
C2479-12	MW-4 9-11	96	98	90
C2479-13	MW-5 9-11	94	99	89

Katrina L. Alsum

Katrina L. Alsum
Laboratory Director
Technology Laboratory, Inc.

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TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK
1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 09/30/21
Matrix: Soil
Project No.: 1021020

Lab ID	Sample ID	Date Sampled	Date Analyzed	DRO (TEPH) mg/Kg
C2479-01	MW-1 9.5-10	09/27/21	10/05/21	133
C2479-02	MW-1 11.5-12.5	09/27/21	10/06/21	195
C2479-03	B-1 4-5.5	09/27/21	10/05/21	57.3
C2479-04	B-1 9-11	09/27/21	10/05/21	25.3
C2479-05	B-1 14-16	09/27/21	10/05/21	10.3
C2479-06	B-1 19-21	09/27/21	10/05/21	77.1
C2479-07	B-2 4-6	09/28/21	10/06/21	23.3
C2479-08	B-2 10-12	09/28/21	10/06/21	< 10.0
C2479-09	B-3 10-12	09/28/21	10/06/21	< 10.0
C2479-10	MW-2 9-11	09/28/21	10/06/21	< 10.0
C2479-11	MW-3 9-11	09/28/21	10/05/21	< 10.0
C2479-12	MW-4 9-11	09/28/21	10/05/21	< 10.0
C2479-13	MW-5 9-11	09/29/21	10/05/21	< 10.0

DRO (TEPH) Method: EPA-8015B

Katrina L. Alsum
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TECHNOLOGY LABORATORY, INC.

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1012 Centre Avenue
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CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 09/30/21
Matrix: Soil
Project No.: 1021020

Lab ID	Sample ID	Date Sampled	Date Analyzed	pH units (1:5)	Specific Conductance µS/cm @ 25°C
C2479-01	MW-1 9.5-10	09/27/21	10/06/21	6.95	1447
C2479-02	MW-1 11.5-12.5	09/27/21	10/06/21	7.91	2235
C2479-03	B-1 4-5.5	09/27/21	10/06/21	7.89	1120
C2479-04	B-1 9-11	09/27/21	10/06/21	7.86	3638
C2479-05	B-1 14-16	09/27/21	10/06/21	8.41	1544
C2479-06	B-1 19-21	09/27/21	10/06/21	8.16	669
C2479-07	B-2 4-6	09/28/21	10/06/21	8.25	454
C2479-08	B-2 10-12	09/28/21	10/06/21	7.72	4494
C2479-09	B-3 10-12	09/28/21	10/06/21	7.41	3034
C2479-10	MW-2 9-11	09/28/21	10/06/21	7.55	5266
C2479-11	MW-3 9-11	09/28/21	10/06/21	7.61	4996
C2479-12	MW-4 9-11	09/28/21	10/06/21	7.84	7366
C2479-13	MW-5 9-11	09/29/21	10/06/21	7.76	4155

pH Method: EPA-9045D
Specific Conductance Method: USDA 60 (4)

Katrina L. Alsum
Laboratory Director
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W.O. NUMBER C2479

CHAIN-OF-CUSTODY REPORT

COMPANY NAME: Paragon Consulting Group, Inc
PROJECT MANAGER: Scott Rutherford
PROJECT NUMBER: 102020
PROJECT LOCATION OR NAME: Former State 3 Well
Washington, County CO
SAMPLER'S SIGNATURE:

	SAMPLE ID	DATE/TIME SAMPLED	SAMPLE MATRIX: SOIL (S) AIR (A) AQUEOUS (W) OTHER (O)	NUMBER OF CONTAINERS	BTEX / MTBE / TVPH	TEPH (DRO)	OIL & GREASE	8260 (TOTAL / TCLP)	8270 / PAH (TOTAL / TCLP)	pH / ~~TDS~~	RCRA 8 METALS (TOTAL / TCLP / DISSOLVED)	React. / Ignite. / Corr. / Paint Filt.	BTEX/TVPH Emissions Vapor	BTEX Soil Vapor	TO-14 / TO-15 / TVPH Vapor	NITRITE / NITRITE / AMMONIA	BOD / COD	PCBs	Electrical Conductivity	Naphthalene								HOLD AFTER ANALYSIS	HOLD, DON'T ANALYZE
01	mw-1 9.5-10	9/27/21	S	1	X	X				X									X	X								X	
02	mw-1 11.5-12.5																												
03	SB-1 4-5.5																												
04	SB-1 9-11																												
05	SB-1 14-16																												
06	SB-1 19-21																												
07	SB-2 4-6	9/28/21																											
08	B-2 10-12																												
09	B-3 10-12																												
10	mw-2 9-11																												
11	mw-3 9-11																												
12	mw-4 9-11																												

PAGE 1 OF 2

TURNAROUND TIME
- [ ] Normal (≤10 Working Days)
- [ ] 3 Day (1.5 x Normal Rates)
- [ ] Next Day (2 x Normal Rates)
- [ ] Same Day (4 x Normal Rates)

DISCHARGE PERMIT? ___YES X NO

COMMENTS:

LOGGED IN BY: KA

Sample Preservative:
- [x] ≤ 6° C
- [ ] None
- [ ] Other
- [ ] Acid
- [ ] Filtered

RELINQUISHED BY:		DATE: 9/30/21	RECEIVED BY: VP Meeks	DATE: 9.30.21
COMPANY:	Paragon Consulting	TIME: 1255	COMPANY: RT	TIME: 12:53
RELINQUISHED BY:		DATE:	RECEIVED BY:	DATE:
COMPANY:		TIME:	COMPANY:	TIME:

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W.O. NUMBER C2479

CHAIN-OF-CUSTODY REPORT

COMPANY NAME: Bucaglia Consulting Group, Inc.
PROJECT MANAGER: Scott Rutherford
PROJECT NUMBER: 1021020
PROJECT LOCATION OR NAME: Former State 3 Well Washington County, CO
SAMPLER'S SIGNATURE:

	SAMPLE ID	DATE/TIME SAMPLED	SAMPLE MATRIX: SOIL (S) AIR (A) AQUEOUS (W) OTHER (O)	NUMBER OF CONTAINERS	BTEX / ~~MTBE~~ / TVPH	TEPH (DRO)	OIL & GREASE	8260 (TOTAL / TCLP)	8270 / PAH (TOTAL / TCLP)	pH / ~~TSS~~ / TDS	RCRA 8 METALS (TOTAL / TCLP / DISSOLVED)	React. / Ignite. / Corr. / Paint Filt.	BTEX/TVPH Emissions Vapor	BTEX Soil Vapor	TO-14 / TO-15 / TVPH Vapor	NITRITE / NITRITE / AMMONIA	BOD / COD	PCBs	Electrical Conductivity	Naphthalene								HOLD AFTER ANALYSIS	HOLD, DON'T ANALYZE
13	MW-5 9-21	9/29/21	S	1	X	X				~~X~~									X	X								X	

PAGE 2 OF 2

TURNAROUND TIME

- [X] Normal (≤10 Working Days)
- [ ] 3 Day (1.5 x Normal Rates)
- [ ] Next Day (2 x Normal Rates)
- [ ] Same Day (4 x Normal Rates)

DISCHARGE PERMIT? ___YES X NO

COMMENTS:

LOGGED IN BY: KH

Sample Preservative:
- [X] ≤ 6° C
- [ ] None
- [ ] Other
- [ ] Acid
- [ ] Filtered

RELINQUISHED BY:		DATE: 9/30/21	RECEIVED BY: VPMeiers RT
COMPANY:	Bucaglia Consulting	TIME: 1255	COMPANY: DATE: 9.30.21 TIME: 1253
RELINQUISHED BY:		DATE:	RECEIVED BY: DATE:
COMPANY:		TIME:	COMPANY: TIME:

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TECHNOLOGY LABORATORY, INC.

CENTRE PROFESSIONAL PARK

1012 Centre Avenue
Fort Collins, Colorado 80526
(970) 490-1414

CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Sampled: 09/28/21
Received: 09/30/21

Sample ID: MW-4 9-11
Laboratory ID: C2479-12

Project No.: 1021020
Matrix: Soil

CAS Number	Parameter	Result	Units	MDL	Method	Date Analyzed
N/A	SAR	12.3			USDA 60 (20B)	10/20/21

Katrina L. Alsum
Laboratory Director
Technology Laboratory, Inc.

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DRAFT

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W.O. NUMBER C2479

CHAIN-OF-CUSTODY REPORT

COMPANY NAME: Paragon Consulting Group, Inc.
PROJECT MANAGER: Scott Rutherford
PROJECT NUMBER: 102020
PROJECT LOCATION OR NAME: Former State 3 Well Washington, County CO
SAMPLER'S SIGNATURE:

	SAMPLE ID	DATE/TIME SAMPLED	SAMPLE MATRIX: SOIL (S) AIR (A) AQUEOUS (W) OTHER (O)	NUMBER OF CONTAINERS	BTEX / MTBE / TVPH	TEPH (DRO)	OIL & GREASE	8260 (TOTAL / TCLP)	8270 / PAH (TOTAL / TCLP)	pH / ~~TSS~~ / TDS	RCRA 8 METALS (TOTAL / TCLP / DISSOLVED)	React. / Ignite. / Corr. / Paint Filt.	BTEX/TVPH Emissions Vapor	BTEX Soil Vapor	TO-14 / TO-15 / TVPH Vapor	NITRATE / NITRITE / AMMONIA	BOD / COD	PCBs	Electrical Conductivity	Naphthalene	Sodium Adsorption Ratio	HOLD AFTER ANALYSIS	HOLD, DON'T ANALYZE
01	mw-1 9'-10'	9/27/21	S	1	X	X				X									X	X		X	
02	mw-1 11'-12'																						
03	SB-1 4-5'																						
04	SB-1 9-11																						
05	SB-1 14-16																						
06	SB-1 19-21																						
07	SB-2 4-6	9/28/21																					
08	B-2 10-12																						
09	B-3 10-12																						
10	mw-2 9-11																						
11	mw-3 9-11																						
12	mw-4 9-11																				X SR 10/13/21		

PAGE 1 OF 2

TURNAROUND TIME

- [ ] Normal (≤10 Working Days)
- [ ] 3 Day (1.5 x Normal Rates)
- [ ] Next Day (2 x Normal Rates)
- [ ] Same Day (4 x Normal Rates)

DISCHARGE PERMIT? ___YES X NO

COMMENTS:

LOGGED IN BY: KA

Sample Preservative:

- [x] ≤ 6° C
- [ ] None
- [ ] Other
- [ ] Acid
- [ ] Filtered

RELINQUISHED BY:		DATE: 9/30/21	RECEIVED BY: VP Meeks	DATE: 9.30.21
COMPANY: Paragon Consulting		TIME: 1255	COMPANY: TT	TIME: 2153
RELINQUISHED BY:		DATE:	RECEIVED BY:	DATE:
COMPANY:		TIME:	COMPANY:	TIME:

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Fort Collins, Colorado 80526
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CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 10/08/21
Matrix: Water
Project No.: 1021020

Lab ID	Sample ID	Date Sampled	Date Analyzed	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L
C2508-01	MW-1	10/08/21	10/20/21	< 0.001	< 0.001	< 0.001	< 0.001
C2508-02	MW-2	10/08/21	10/20/21	< 0.001	< 0.001	< 0.001	< 0.001
C2508-03	MW-3	10/08/21	10/20/21	< 0.001	< 0.001	< 0.001	< 0.001
C2508-04	MW-4	10/08/21	10/20/21	< 0.001	< 0.001	< 0.001	< 0.001
C2508-05	MW-5	10/08/21	10/20/21	< 0.001	< 0.001	< 0.001	< 0.001

BTEX Method: EPA-8260B

Katrina L. Alsum
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DRAFT

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CENTRE PROFESSIONAL PARK

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CERTIFICATE OF ANALYSIS

QA/QC SURROGATE RECOVERY

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 10/08/21
Matrix: Water
Project No.: 1021020

(% Recovery)

Lab ID	Sample ID	Bromofluorobenzene Limits (70-113%)	Dibromofluoromethane Limits (68-120%)	Toluene-d8 Limits (81-128%)
C2508-01	MW-1	105	109	96
C2508-02	MW-2	103	110	96
C2508-03	MW-3	104	109	96
C2508-04	MW-4	106	109	96
C2508-05	MW-5	105	110	98

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(970) 490-1414

CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.
1103 Oak Park Drive
Fort Collins, CO 80525

Date Received: 10/08/21
Matrix: Water
Project No.: 1021020

Lab ID	Sample ID	Date Sampled	Date Analyzed	Chloride mg/L
C2508-01	MW-1	10/08/21	10/13/21	192
C2508-02	MW-2	10/08/21	10/13/21	85.3
C2508-03	MW-3	10/08/21	10/13/21	200
C2508-04	MW-4	10/08/21	10/13/21	50.2
C2508-05	MW-5	10/08/21	10/13/21	164

Chloride Method: EPA-300.1

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W.O. NUMBER C2508

CHAIN-OF-CUSTODY REPORT

COMPANY NAME: Paragon Consulting Group
PROJECT MANAGER: Scott Rutherford
PROJECT NUMBER: 10 21020
PROJECT LOCATION OR NAME: Former State 3 well Last Chance, CO
SAMPLER'S SIGNATURE:

	SAMPLE ID	DATE/TIME SAMPLED	SAMPLE MATRIX: SOIL (S) AIR (A) AQUEOUS (W) OTHER (O)	NUMBER OF CONTAINERS	BTEX / ~~MEDI. FUPH~~	TEPH (DRO)	OIL & GREASE	8260 (TOTAL / TCLP)	8270 / PAH (TOTAL / TCLP)	pH / TSS / TDS	RCRA 8 METALS (TOTAL / TCLP / DISSOLVED)	React. / Ignite. / Corr. / Paint Filt.	BTEX/TVPH Emissions Vapor	BTEX Soil Vapor	TO-14 / TO-15 / TVPH Vapor	NITRATE / NITRITE / AMMONIA	BOD / COD	PCBs	Chloride									HOLD AFTER ANALYSIS	HOLD, DON'T ANALYZE
01	mw-1	10/8/21	W	4	X														X									
02	mw-2		W	4	X														X									
03	mw-3		W	4	X														X									
04	MW-4		W	4	X														X									
05	mw-5		W	4	X														X									

PAGE 1 OF 1

TURNAROUND TIME

- [x] Normal (≤10 Working Days)
- [ ] 3 Day (1.5 x Normal Rates)
- [ ] Next Day (2 x Normal Rates)
- [ ] Same Day (4 x Normal Rates)

DISCHARGE PERMIT? ___YES X NO

COMMENTS:

RELINQUISHED BY:		DATE: 10/8/21	RECEIVED BY: KA	DATE: 10/8/21
COMPANY:	Paragon Consulting	TIME: 1530	COMPANY: TLI	TIME: 3:30 p.m.
RELINQUISHED BY:		DATE:	RECEIVED BY:	DATE:
COMPANY:		TIME:	COMPANY:	TIME:

LOGGED IN BY: KA

Sample Preservative:

- [x] ≤ 6° C
- [ ] None
- [ ] Other
- [ ] Acid
- [ ] Filtered