

Interim Characterization Report and Remediation Plan

Property:

2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) Unit Letter I, S23 T28N R10W San Juan County, New Mexico

NM EMNRD OCD Incident ID No. NAPP2121054964

February 9, 2022 Ensolum Project No. 05A1226149

Prepared for:

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Interim Characterization Report and Remediation Plan

2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) Unit Letter I, S23 T28N R10W San Juan County, New Mexico

Ensolum Project No. 05A1226149

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) (Site)
NM EMNRD OCD Incident ID No.	NAPP2121054964
Location:	36.644538° North, 107.857891° West Unit Letter I, Section 23, Township 28 North, Range 10 West San Juan County, New Mexico
Property:	Private
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On July 29, 2021, a release of natural gas was identified on the 2D-1 Well Tie/Bruce R Sullivan #2 pipeline. Enterprise subsequently isolated and locked the pipeline out of service. On August 9, 2021, Enterprise initiated activities to facilitate the repair of the pipeline and remediate potential petroleum hydrocarbon impact.

A **Topographic Map** depicting the location of the Site is included as **Figure 1**, and a **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

1.2 **Project Objective**

The primary objective of the closure activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the applicable NM EMNRD OCD closure criteria.

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the NM EMNRD OCD. To address activities related to oil and gas releases, the NM EMNRD OCD references NM Administrative Code (NMAC) 19.15.29 *Releases,* which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Enterprise, the general site characteristics, and information available from the NM Office of the State Engineer (OSE) and the NM EMNRD OCD imaging database to determine the appropriate closure criteria for the Site. Additionally, Ensolum utilized the NM WQCC GQSs (NMAC 20.6.2 *Ground and Surface Water Protection*) to evaluate groundwater conditions. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.



- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified within a one mile radius of the Site. In addition, no PODs were identified in the adjacent Public Land Survey System (PLSS) sections (Figure A, Appendix B).
- Numerous cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database within one mile of the Site and in adjacent PLSS sections Figure B (Appendix B). The two closest CPWs are located less than one mile from the Site. The first CPW is associated with the McClanahan A#, A#2 and A#3 oil/gas production wells and is located approximately 0.75 miles southeast of the site and at a higher elevation (5,811 feet, according to the well record) than the Site (5,727 feet), with a reported depth to water of 155 feet bgs. The second CPW is associated with the Omler #500 oil/gas production well and is located approximately 0.9 miles southeast of the site and at a higher elevation (5,825 feet, according to the well record) than the Site and at a higher elevation (5,825 feet, according to the well record) than the Site, with a reported depth to water of 120 feet bgs. The remaining CPWs that are located over one mile from the Site have recorded depths to water ranging from 120 feet bgs to 310 feet bgs.
- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse. The Site is located approximately 60 feet east of the Armenta Canyon Wash normal high water mark and is within the flood plain (**Figure C**, **Appendix B**).
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure D**, **Appendix B**).
- No springs, or private domestic fresh water wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E**, **Appendix B**).
- No fresh water wells or springs were identified within 1,000 feet of the Site (Figure E, Appendix B).
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not located within 300 feet of a wetland (**Figure F**, **Appendix B**).
- Based on information identified in the NM Mining and Minerals Division's Geographic Information System (GIS) Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine (**Figure G**, **Appendix B**).
- The Site is not located within an unstable area.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database the location of the Site is located within a 100-year floodplain (**Figure H**, **Appendix B**).

Based on the identified siting criteria, the applicable closure criteria for soils remaining in place at the Site include:



Tier I Closure Criteria for Soils Impacted by a Release							
Constituent ¹	Method	Limit					
Chloride	EPA 300.0 or SM4500 CI B	600 mg/kg					
TPH (GRO+DRO+MRO) ²	EPA SW-846 Method 8015	100 mg/kg					
BTEX ³	EPA SW-846 Method 8021 or 8260	50 mg/kg					
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg					

¹ – Constituent concentrations are in milligrams per kilogram (mg/kg).

² – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).

³ – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

3.0 REMEDIATION ACTIVITIES

On August 9, 2021, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, Industrial Mechanical Inc (IMI), provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

During remediation activities, water was encountered at approximately seven feet bgs (capillary fringe). Upon completion of pipeline repair and soil remediation activities, Enterprise corresponded with the New Mexico EMNRD OCD and informed them of Enterprise's plan to install a temporary monitoring well at the Site. On August 13, 2021, the temporary monitoring well was installed at the Site during the backfill activities to provide access to groundwater for sampling, and a sampling event was performed at the Site on August 17, 2021. The regulatory correspondence is provided in **Appendix C**.

The final excavation measured approximately 24 feet long and 12 feet wide at the maximum extents. The maximum depth of the excavation measured approximately eight feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sand.

Approximately 36 cubic yards (yd³) of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix D**. The excavation was backfilled with imported fill and laboratory-confirmed stockpiled soils, and the area was then contoured to the surrounding grade.

Figure 3 is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipelines (**Appendix A**). Photographic documentation of the field activities is included in **Appendix E**.

4.0 SOIL AND WATER SAMPLING PROGRAM

Ensolum field screened the soil samples from the excavation utilizing a calibrated Dexsil PetroFLAG[®] hydrocarbon analyzer system and a photoionization detector (PID) fitted with a 10.6 eV lamp to guide excavation extents.

Ensolum's soil sampling program included the collection of five composite soil samples (S-1 through S-5) from the excavation for laboratory analysis. In addition, two composite soil samples (SP-1 and SP-2) were collected from the stockpiled soils to confirm the material was suitable to use as backfill. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft²) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools were utilized to obtain fresh aliquots from each area of the excavation. The regulatory correspondence is provided in **Appendix C**.



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First Sampling Event

On August 11, 2021, the first sampling event was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-1 (0' to 8'), S-2 (0' to 8'), S-3 (0' to 8'), S-4 (0' to 8'), S-5 (0' to 8') were collected from the sidewalls of the excavation. A water sample (WS-1) was collected from base of the capillary fringe in the open excavation utilizing a disposable bailer and was subsequently submitted for laboratory analysis to evaluate the potential for water impact at the Site. Subsequent water analytical results for EW-1 identified a benzene concentration that exceeded the applicable WQCC standard.

Second Sampling Event

On August 13, 2021, Ensolum installed a temporary monitoring well (MW-1) at the Site, and on August 16, 2021, the well was developed by removing groundwater until the fluid appeared relatively free of finegrained sediment. On August 17, 2021, the temporary monitoring well was sampled utilizing disposable bailer. The analytical results indicated benzene, sulfate, and TDS concentrations above the WQCC GQSs.

All soil samples were collected and placed in laboratory prepared glassware. The containers were labeled and sealed using the laboratory supplied labels and custody seals and were stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, NM, under proper chain-of-custody procedures.

5.0 LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX using Environmental Protection Agency (EPA) SW-846 Method 8021; TPH GRO/DRO/MRO using EPA SW-846 Method 8015; and chlorides using EPA Method 300.0.

The initial water sample collected from the open excavation was analyzed for BTEX using EPA SW-846 Method 8260. The water sample collected from the temporary monitoring well was analyzed for VOCs using EPA Method SW-846 8260; total dissolved solids (TDS) using Standard Method (SM) 2540C MOD; cations using EPA Method 200.7; and anions using EPA Method 300.0.

The laboratory analytical results are summarized in **Table 1** through **Table 3** in **Appendix F**. **Table 2** only identifies the constituents that indicated a concentration above the laboratory practical quantitation limits (PQLs) or reporting limits (RLs). The laboratory data sheets and executed chain-of-custody forms are provided in **Appendix G**.

6.0 DATA EVALUATION

6.1 Soil Data Evaluation

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-5, SP-1, and SP-2) to the NM EMNRD OCD Tier I closure criteria.

- The laboratory analytical results for the composite soil samples indicate that benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analytical results for the composite soil samples indicate that total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg.



- The laboratory analytical result for composite soil sample SP-1 indicates a combined TPH GRO/DRO/MRO concentration of 26 mg/kg, which is less than the NM EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for all other composite soil samples indicate that total combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 100 mg/kg.
- The laboratory analytical results for the composite soil samples indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 600 mg/kg.

The laboratory analytical results are summarized in Table 1 (Appendix F).

6.2 Water Data Evaluation

Ensolum compared the laboratory analytical results associated with the water samples (EW-1 and MW-1) to the NM WQCC Human Health Standards (HHSs) and Domestic Water Supply Standards (DWSSs). The results of the water sample analyses are summarized in **Table 2** and **Table 3** of **Appendix F**.

- The laboratory analytical results for samples EW-1 and MW-1 indicate benzene concentrations of 5.3 μg/L and 33 μg/L, respectively, which exceed the WQCC HHS of 5 μg/L.
- The laboratory analytical result for sample MW-1 indicates a toluene concentration of 3.2 µg/L, which is below the WQCC HHS of 1,000 µg/L. The laboratory analytical result for sample EW-1 does not indicate a toluene concentration above the laboratory PQL/RL, which is below the WQCC HHS of 1,000 µg/L.
- The laboratory analytical result for sample MW-1 indicates an ethylbenzene concentration of 1.3 μg/L, which is below the WQCC HHS of 700 μg/L. The laboratory analytical result for sample EW-1 does not indicate an ethylbenzene concentration above the laboratory PQL/RL, which is below the WQCC HHS of 700 μg/L.
- The laboratory analytical result for sample MW-1 indicates a total xylene concentration of 17 µg/L, which is below the WQCC HHS of 620 µg/L. The laboratory analytical result for sample EW-1 does not indicate a total xylene concentration above the laboratory PQL/RL, which is below the WQCC HHS of 620 µg/L.
- The laboratory analytical result for sample MW-1 indicates a naphthalene concentration of 4.9 μg/L, which is below the WQCC HHS of 30 μg/L.
- The laboratory analytical result for sample MW-1 indicates a 1,2,4-trimethylbenzene concentration of 7.6 μg/L. The WQCC does not have an established standard for 1,2,4-trimethylbenzene.
- The laboratory analytical result for sample MW-1 indicates a 1,3,5-Trimethylbenzene concentration of 4.8 μg/L. The WQCC does not have an established standard for 1,3,5-trimethylbenzene.
- The laboratory analytical result for sample MW-1 indicates a 2-methylnaphthalene concentration of 4.8 μg/L. The WQCC does not have an established standard for 2-methylnaphthalene.

Cations/Anions

• The laboratory analytical result for sample MW-1 indicates a fluoride concentration of 0.79 mg/L, which is less than the WQCC HHS of 1.6 mg/L.



- The laboratory analytical result for sample MW-1 indicates a chloride concentration of 62 mg/L, which is below the WQCC DWSS of 250 mg/L.
- The laboratory analytical result for sample MW-1 indicates a sulfate concentration of 4,000 mg/L, which exceeds the WQCC DWSS of 600 mg/L.
- The laboratory analytical result for sample MW-1 indicates a Nitrate + Nitrite concentration below the laboratory PQLs/RL, which is less than the WQCC HHS of 11 mg/L.
- The laboratory analytical result for sample MW-1 indicates a bromide concentration below the laboratory PQLs/RLs. There is no WQCC standard established for bromide.
- The laboratory analytical result for sample MW-1 indicates a phosphorous concentration below the laboratory PQLs/RLs. There is no WQCC standard established for phosphorous.
- The laboratory analytical result for sample MW-1 indicates a calcium concentration of 530 mg/L. There is no WQCC standard established for calcium.
- The laboratory analytical result for sample MW-1 indicates a magnesium concentration of 78 mg/L. There is no WQCC standard established for magnesium.
- The laboratory analytical result for sample MW-1 indicates a potassium concentration of 13 mg/L. There is no WQCC standard established for potassium.
- The laboratory analytical result for sample MW-1 indicates a sodium concentration of 1,300 mg/L. There is no WQCC standard established for sodium.

<u>TDS</u>

• The laboratory analytical result for sample MW-1 indicates a TDS concentration of 6,300 mg/L, which exceeds the WQCC DWSS of 1,000 mg/L.

Conductivity

• The laboratory analytical result for sample MW-1 indicates a conductivity value of 7,200 micromhos per centimeter (μmhos/cm). There is no WQCC standard established for conductivity.

Total Alkalinity

• The laboratory analytical result for sample MW-1 indicates a total alkalinity concentration of 427.2 mg/L Calcium (Ca). There is no WQCC standard established for total alkalinity.

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with imported fill and laboratory-confirmed stockpiled soil and was then contoured to surrounding grade. Enterprise will re-seed the Site with an approved seeding mixture.



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8.0 FINDINGS

- Seven composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.
- Approximately 36 yd³ of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and laboratory-confirmed stockpiled soils, and then contoured to the surrounding grade.
- Two water samples were collected from the. Based on the laboratory analytical results for the water samples, benzene, sulfate, and TDS concentrations were identified above the applicable WQCC standards.

9.0 RECOMMENDATIONS AND INTERIM REMEDIATION PLAN

Based upon the information provided herein, additional investigation appears warranted at this time with relation to groundwater. Based on conversations with the NM EMNRD OCD, Enterprise plans to install additional temporary monitoring wells to delineate the extent of impact to groundwater, determine the hydraulic gradient, and determine if the impact to groundwater is naturally attenuating. Enterprise recommends utilizing a track-mounted drilling or push-probe rig to access the Site. The proposed temporary monitoring well locations are depicted on **Figure 5** (Appendix A).

10.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

10.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties).

10.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendation are based solely upon data available to Ensolum at the time of these services.

10.3 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms,

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Interim Characterization Report and Remediation Plan Enterprise Field Services, LLC 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) February 9, 2022



conditions and limitations stated in the Closure Report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

Figures

Received by OCD: 4/26/2024 8:27:41 AM













APPENDIX B

Siting Figures and Documentation

Released to Imaging: 4/26/2024 8:41:24 AM

Received by OCD: 4/26/2024 8:27:41 AM



















New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 23, 15, 14, 13, Township: 28N Range: 10W 22, 24, 25, 26, 27

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO

Operator Meridian Oil Co. Location: Unit M Sec. 23 Twp 28 Rng 10 Name of Well/Wells or Pipeline Serviced 30-045-07272, 30-045-13069 MC (IRNAHAN R" R"2, + R"3 30-045-2475 Elevation <u>58//</u>Completion Date <u>2-22-93</u>Total Depth <u>4/3</u> Land Type <u>F</u> Casing Strings, Sizes, Types & Depths 2/18 507 99 of 8" PVC CASING NO GAS WATER OF Boulders Were ENCOUNTEREd DURING CASING If Casing Strings are cemented, show amounts & types used <u>Cemented</u> WITH 21 SACKS. If Cement or Bentonite Plugs have been placed, show depths & amounts used None Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 155' and was clear. Depths gas encountered: $\sqrt{2} - 3 = 5$ Ground bed depth with type & amount of coke breeze used: 413' with to (10015) sacks Loresco S.W. and 80 (5016) Asbury. Depths anodes placed: #1 at 390' and #15 at 175' Depths vent pipes placed: Bottom to surface m Vent pipe perforations: Up 40 150 JAN 31 1994 Remarks: OIL CON. DIV. DIST

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

Analyst 91'3 100'0N 20:91 26'12 JPW

TEL No.5053253311

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	L.AI	BORATORY REPORT		TECH, 333 East M
	OIL-F	LELD WATER ANAL	YSIS	Fàrmin New Mo
				8 505/327-
Client:	23930315-08 Meridian Oil McClanahan A - M23-28-10	6/60W #2,#1,#3 G.bed	Date Sample Date Receiv Date Analy: Date Report	ved: 03-15-93 zed: 03-17-93
DISSOLVED S	olids:	me / L	ng/L	Detection Limit, mg/L
Calcium, Ca	¢uu‡n	7.9	159	1.0
Magnesium, I		0.4	5	1.0
Sodium, Na+	(calc)	50.5	1,160	5.0
Chloride, C	1-	0.7	25	2.0
Sulfate, SO		52.9	2,540	5.0
Bicarbonate	, HCO3-	4.8	293	5.0
Carbonate,C		0.4	12	1.0
Hydroxide, 4	DH-	ND	ND	1.0
Total Disso	lved Solids (c	alculated);	4,200	10.0
OTHER PROPE	RTIES:			
pH (units):		8.1		
reisistivit	y (ohm-meters)	: 2.2		
specific gr	avity at 60F:	1.0071		
room temper	ature (F):	72		
ND = Not De	tected at the	stated dectecti	on limit	
Connents:	DK, PC, PC F San Juan Coun Sampled by R.	ty, New Mexico		
Methods:		oleum Institute of Dil-Field Wa		

Mar 21,93 16:02 No.001 P.16

1EC Nº.505323311

A.



LABORATORY REPORT OIL-FIELD WATER ANALYSIS TECH, Inc. 333 East Main Farmington New Mexico 87401

505/327-3311

Detection

Limit, mg/L

1.Ö

1.0

5.0

2.0

5.0

5.0

1.0

1.0

10.0

Lab Number:	25930315-08	G.bed	Date Sampled:	02-22-93
Client:	Meridian Oil 6160 W		Date Received:	03-15-93
Sample ID:	McClanahan A #2,#1,#3		Date Analyzed:	03-17-93
Location:	M23-28-10		Date Reported:	03-18-93

me/L

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7.9

0.4

50.5

0.7

52.9

4.8

0.4

ND

mg/L_

····· ···· ···· ····

1,160

2,540

4,200

293

158

5

25

12

ND

DISSOLVED	SOLIDS:

Calcium, Ca++ Magnesium, Mg++ Sodium, Na+ (calc)

Chloride, Cl-Sulfate, SO4--Bicarbonate, HCO3-Carbonate,CO3--Hydro×ide, OH-

Total Dissolved Solids (calculated):

OTHER PROPERTIES:

pH (units):	8.1
reisistivity (ohm-meters):	2.2
specific gravity at 60F:	1.0071
room temperature (F):	72

ND = Not Detected at the stated dectection limit

- Comments: DK, PC, PC Formation. San Juan County, New Mexico Sampled by R. Smith
- Methods: American Petroleum Institute, "Recommended Practice for Analysis of Oil-Field Waters;" 2nd edition.

anal

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DATA SHEET FOR DEEP NORT	GROUND BED THWESTERN N		ECTION WELLS
		CD Aztec Offic	:e)
Operator MERIDIAN OIL INC.	Lc	cation: Unit_L	
Name of Well/Wells or Pipelin	ne Serviced	OMLER #50	0
			cps 2156
Elevation_ <u>5825</u> Completion Date	<u>6/23/89</u> 1	otal Depti4	<u>00'</u> Land Type* <u>N/A</u>
Casing, Sizes, Types & Depths		N/A	
If Casing is cemented, show a	mounts & t	vpes used	N/A
y		<u></u>	
If Cement or Bentonite Plugs	have been		anthe f amounts use
if cement of benconite flugs	nave been	praced, show d	epens a amounes use
N/A			
Depths & thickness of water z	ones with	description of	water when possibl
Fresh, Clear, Salty, Sulphur,	Etc	120'	
Depths gas encountered:	N/A		
Type & amount of coke breeze	used:	N/A	
Depths anodes placed: 300': 290), 280', 270	', 260', 250', 1 <u>9</u>	95', 155', 145', 135'
Depths vent pipes placed:	N/A	•	
Vent pipe perforations:	280'	TO ECEL	
Remarks: <u>gb</u> #1		IN	<u> </u>
Achial KS.		MAY 31 19	
		OIL CON.	A
If any of the above data is u	navailable	, please Phail	ate so. Copies of a

logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

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*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

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WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Hereto)

FM-07-0238 (Rev. 10-82)

Completion Date 6 - 23 CPS # Well Name, Line or Plant-Work Order # Ins Union Check Static: Omler 500 1 817 . Good 🗌 Bad 355814 21560 Location Anode Type Anode Size Size Bit. 2" × 60" 34 6 L25-28-10 Vuriron Drilling Rig Time, 5 Krs Depth Drilled Total Lbs Goke Used Lost Circulation Mat'l Used No Sacks Mud Used Depth Logged 340 400 Anode Depth * 3 280 * 4 2 20 * 5 260 * 6 250 * 7/95 #1300 #2290 * 8155 * ~ 45 خر/ 10 # Anode Output (Amps) # 2 5.9 # 35.9 # 4 5.2 # 5 4,9 # 6 5,3 📿 . سې ۱ # **لر بری 8 چا سی بر کی 7 پا** # 9 5.4 ک 10 # Anode Depth # 11 # 12 # 13 # 14 # 15 # 16 # 17 # 18 # 19 # 20 Anode Output (Amps) # 15 # 11 # 12 # 13 # 14 # 16 # 17 # 18 # 19 # 20 Total Circuit Resistance No. 8 C.P. Cable Used No. 2 C.P. Cable Used ,47 Volts 11.92 Amps 25 Ohms riller said water was at 120! Vent pi 120: Sugges aroted 50 20 5.5 loca. 01 East. 3870.00 599.00 600.00 / 34.00 -16 Rectifier Size: 40 V A All Construction Completed 312,50 Addn'l Depth_ Depth Credit: 160' 3.15 237.00 .20 170 4552,50 Extra Cable:____ Ditch & 1 Cable: ____ 50 ,70 227.88 (Signature) 25 'Meter Pole:__ 20' Meter Pole: 312,50 GROUND BED LAYOUT SKETCH 4285.38 OK93 10' Stub Pole:_ 560x - 237,00 Ν 5825

2-5-3 Released to Imaging: 4/26/2024 8:41:24 AM

Received by OCD: 4/26/2024 8:27:41 AM 1 X - 30 - 045 - 07513 Page 33 of 98 1- 30-045-07512 21- 30-045-25362 DATA SHEET FOR DEEP GROUND BED CATHODIC. PROTECTION WELLS NORTHWESTERN NEW MEXICO Operator Meridian Oil INC. Location: Unit A Sec. 13 Two 28 Rng 10 Name of Well/Wells.or Pipeline Serviced Mc (| RNAHAN *18, *1, AND *21 Elevation ____ Completion Date 5/12/94 Total Depth 398 Land Type F Casing Strings, Sizes, Types & Depths 5/11 Set 99 OF 8 PVC CASING. NO GAS OF Boulders, BUT WATER AT 45, WAS ENCOUNTERED DURING CASING If Casing Strings are cemented, show amounts & types used CemenTed WITH 30 SACKS If Cement or Bentonite Plugs have been placed, show depths & amounts used NONE Depths & thickness of water zones with description of water: Fresh. Clear. Salty, Sulphur, Etc. HIT Some Fresh WATER AT 135, And More FLESH WATER AT 370. A WATER SAMPLE WAS TAKEN. Depths gas encountered: NONE Ground bed depth with type & amount of coke breeze used: 398 Death. (15ed 103 SACKS OF ASbury 218R (5150#) Depths anodes placed: 345, 335, 320, 310, 290, 275, 265, 235, 225, 215, 205, 190, 180, 170. + 145 Depths vent pipes placed: SulfAce To 398, Vent pipe perforations: Bottom 275. 2 0 1995 Remarks: OIL CON. DIV.

If any of the above data is unavailable, please indicate so. -Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

Received by OCD: 4/26/2024 8:27:41 AM Page 34 of 98 #19E 30-045-24107 ٣. DATA SHEET FOR DEEP GROUND BED CATHODIC. PROTECTION WELLS NORTHWESTERN NEW MEXICO Operator Meridian Oil Inc. Location: Unit E Sec. 14 Twp 28 Rng 10 Name of Well/Wells or Pipeline Serviced Mc Clanahan #19E Elevation 5900 Completion Date 2-15-95 Total Depth Land Type Casing Strings, Sizes, Types & Depths/00'of 8" P.J.C. If Casing Strings are cemented, show amounts & types used (emented) with 17 sacks of type I cement. If Cement or Bentonite Plugs have been placed, show depths & amounts used Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 130 and was clear. Depths gas encountered: Ground bed depth with type & amount of coke breeze used: Depths anodes placed: Depths vent pipes placed: Bottom to Surface Vent pipe perforations: Up to 120! Remarks: OUL GUINO DUVO DISTL 3 If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included. Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number. 100' 17 5acks

10.	#15 30-045-07423 #550 30-045-27926
	GROUND BED CATHODIC PROTECTION WELLS THWESTERN NEW MEXICO
Operator Meridian OIL	Location: Unit <u>N</u> Sec. <u>14</u> Twp <u>29</u>
Name of Well/Wells or Pipeline	e Serviced Mcchanullan # 550, 15,
Elevation 5800 Completion Date	12-6-91 Total Depth 497 Land Type
Casing Strings, Sizes, Types (& Depths & " PVC Surface Casing,
If Casing Strings are cemented	d, show amounts & types used yes $\overline{w_1}$
Bags of Neat Gemenit	· · · · · · · · · · · · · · · · · · ·
	have been placed, show depths & amound
NA	
	ones with description of water: Fres
Depths & thickness of water zo	resh
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> Depths gas encountered: <u>N</u> A	resh
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> fr Depths gas encountered: <u>N</u> A Ground bed depth with type & a	resh
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> fr Depths gas encountered: <u>NA</u> Ground bed depth with type & a <u>7600165</u> AShury 4518 f Depths anodes placed: <u>469</u> 466	resh amount of coke breeze used: <u>497</u> -10 COKe 0, 450, 440, 430, 415, 405, 395, 385, 375
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> fr Depths gas encountered: <u>NA</u> Ground bed depth with type & a <u>7600165</u> AShury 4518 f Depths anodes placed: <u>469</u> 466	amount of coke breeze used: <u>497</u>
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> fr Depths gas encountered: <u>NA</u> Ground bed depth with type & a <u>7600165</u> AShury 4518 f Depths anodes placed: <u>469</u> 466	resh amount of coke breeze used: $497'$ -10 COKe 0, 450, 440, 430, 415, 405, 395, 385, 375 97', 7600 165 Asbury 1518 Sto coke
Depths & thickness of water zo Salty, Sulphur, Etc. <u>310'</u> fr Depths gas encountered: <u>NA</u> Ground bed depth with type & a <u>7600165</u> <u>AShury 4518</u> f Depths anodes placed: <u>469,460</u> Depths vent pipes placed: <u>4</u>	resh amount of coke breeze used: $497'$ -10 COKe 0, 450, 440, 430, 415, 405, 395, 385, 375 97', 7600 165 Asbury 1518 Sto coke

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number. $\sum_{i=1}^{n}$

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4 m 199

	•••••	CPS	GROUN	D BED -	CONSTRU	JCTION	WORKSI	IEET			
4207 W	P/L NAME (=), NUMBER (=) MCCLANAITAN # 550 15 9										
	TOTAL	VOLTE		AMPE			DAT		NAME		
<u>K443</u>		11.7		28.9	قرب معلم مرجع	10	112-6	p- 91	MW,1	<u> </u>	
EMARKS (n	9786 791	r const	rucs 1	on 108	•						
									,		
100' 0f ca	Sing ,	24 Bags C	ement;	water	at 320	Perfur	sted B	ottum 2	00'		
150 Bags	of As	church 45	-19 1	Ban of	Lacres	D +upe	2 5 (4)				
<u>120 Bags</u>	<u></u>	burg to		Dag 01	501050	- Liff					
					, <u>ja liisen aikka</u>			<u>مردا با المراجع المراجع ا</u>			
DEPTH	ANODE	DEPTH	LOG	ANODE	DEPTH	LOG	ANDDE	DEPTH	Lag	ANODE	
ANOD	E		ANODE	·		ANODE			ANDDE		
100		295			<u>490</u> 495	<u> 3</u> TO 497		690			
105		<u>300</u> 305	·		500	10.411		695			
115		310			-505-	·	· ·	700			1
120		315			510			ANODE	DEPTH	NO	PUL
-125-		320	4.7-		515	·				COKE	COK
130		<u>325</u> 330	1.6		<u>520</u> 525			$\frac{1}{2}$	469 460	2.4	5,8
140		335	1.2	-	530			3	450	3.4	6.7
145		340	.9		535			4	440	2.8	66
150		_345_	23		540	l		5	430	2.6	6.0
1:55		<u>350 ·</u>	2.4	/2	545			<u> </u>	415	25	- lak
160		<u>355</u> 360	1.9 2.1		<u>.550</u> 555		·	8	405	3.0	2.
170		365	2.1		560			9	385	29	8
175		370	2.1		565			10	375	25	7.
180		375	zq	_10	570			11	365	2.4 2.4	8.0
<u>-185</u> 190		<u>380</u> 385 ·	2.1	9	<u>575</u> 580	}		<u>12</u> 13	350	<u>a.y</u>	-8.4
195		390	2.1		585			14	•		
200		<u>395 ·</u>	2.1	8	590			15			
205		400	2.2		595			16			
210		405	2.4		600		}	<u>17</u> 18	•		
215		<u>410</u> 415.	2.3		<u>~605</u> 610			19	• • •	· • •	-
225		420	1.6		615]	20			1
230		425	1.1		620			21		·	
235		430	2.2		<u>625</u> 630	·		22	•	·{	-
240		435	2.6		635		·	24	• {	·{	-
250		445	2.6		640		1	25	1		-1
255		450·	3.2		645			26			
260		455	2.8		650	·		27	•	.	
265		<u>460 ·</u> 465	2.6		655	·{		<u>28</u> 29		· [·	
270		470.	2.0		665	1		30		1	
280		475	1.0		670			#			
85		480	7	-	675				•	•	_
290		485.	1.0		680		· · · · · · · · · · · · · · · · · · ·				and the second

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ed by OCD: 4/26/2024 8:27:41 AM	#11E 30-045-23913	37
DATA SHEET F	OR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO	
Operator Meridian	0, / Location: Unit Sec. 15 Twp 28 Rng.	/ <
Name of Well/Wells or	Pipeline Serviced (c, n # 11 E	
	on Date <u>2-13-95</u> Total Depth <u>430</u> Land Type	
Casing Strings, Sizes,	Types & Depths 8" P.J.C. 40 100'	
••*		
If Casing Strings are Sacks of type	cemented, show amounts & types used Used 17 The cement.	,
If Cement or Bentonite No plugs	e Plugs have been placed, show depths & amounts us	:e
	water zones with description of water: Fresh, Cla 180'and was clear)a:
Depths gas encountered	i: NO gos	
Ground bed depth with $57 (570016) of$	type & amount of coke breeze used: 430' with lonesco Sw	<u> </u>
	Hisat 415 and #15 is at 230 -	•
	ced: Up to 180' Bottom to Surface	
Vent pipe perforations		
Remarks:	DIE CELUCE	į
••••••••••••••••••••••••••••••••••••••	OIL COM DIV DIST. 3	0

logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

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Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

ived by OCD: 4/26/2024 8:27:41 AM	3768	Page 38 of
DATA SHEET FOR DEEP GROUND BED CATHODIC.PRO NORTHWESTERN NEW MEXICO	STECTION WELLS	-28/09
Operator Meridian Oil Co. Location: Unit/	<u> </u>	<u>8 Rng / Ò</u>
Name of Well/Wells or Pipeline Serviced	······	···
KUTZ CANYON #500	······	
Elevation 589 Completion Date 5-14 93 Total Depth 4	<u> </u>	<u>F</u>
Casing Strings, Sizes, Types & Depths $2/2$ Set 99	0F 8" PVC (Asing.
NO GAS, WATER, OF Boulders Were ENCOUNTERED 7	During CAS.	ing
If Casing Strings are cemented, show amounts & types		
WITH 21 SACKS		
If Cement or Bentonite Plugs have been placed, show	depths & amou	nts used
Nene		· · ·
Depths & thickness of water zones with description of	of water: Fres	h, Clear,
Salty, Sulphur, Etc. 200 and 300 - water ;	s clear.	
Depths gas encountered: No Sic 5		
Ground bed depth with type & amount of coke breeze w	used: 415	with
60 (10016) sacks of Loresco Sin		
Depths anodes placed: 390 40 5051		
Depths vent pipes placed: Bottom to surface.		
Depths anodes placed: <u>396' 20 305</u> Depths vent pipes placed: <u>Bottom 40 Surface</u> Vent pipe perforations: <u>Up 40 140'</u>	P) EGELA	• U
Remarks:	JAN31 199	
	OIL CUNT.	DIA .
	0131.3	

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

Received by OCD: 4/26/2024 8:27:41 AM



LABORATORY REPORT

OIL-FIELD WATER ANALYSIS

TECH, Inc. 333 East Main Farmington New Mexico 87401 505/327-3311

Detection

Limit, mg/L

1.0

1.0

5.0

2.0

5.0

5.0

1.0

1.0

10.0

Sample ID: Kutz Canyon #500 Date Analyzed: 02-20-9 Location: M22-28-10 Date Reported: 02-21-9		Meridian Oil Kutz Canyon #500	Date Date	Received: Analyzed:	02-20-93
--	--	----------------------------------	--------------	------------------------	----------

me/L

- ----

1.0

0.1

12.0

C.1

10.9

1.6

0.4

ND

mg/L

20.8

1.0

275

5.0

525

ND

6.8

880

48.0

DISSOLVED SOLIDS:

Calcium	. Ca++
	um, Mg++
Sodium.	Na+ (calc)

Chloride, Cl-Sulfate, SO4--Bicarbonate, HCO3-Carbonate,CO3--Hydroxide, OH-

Total Dissolved Solids (calculated):

OTHER PROPERTIES:

PH (units):	8.7
reisistivity (ohm-meters): specific gravity at GOF:	11 1.0036
room temperature (F):	72

ND = Not Detected at the stated dectection limit

Methods: American Petrolium Institute, "Recommended Practice for Analysis of Oil-Field Waters;" 2nd edition.

Comments: Fruitland Coal: SJ, NM; Groundbed Sampled by R. Smith

elfra.

Released to Imaging: 4/26/2024 8:41:24 AM

TEC NO.505325331

	024 8:27:41 AM	•			Page 4
645			30-0	045-2786	4
- V	DATA SHEET		D BED CATHODI ERN NEW MEXIC		
Operator_	Meridia	N Oil	_ Location: U	nit <u>6</u> Sec.2	2269 4_Twp <u>28</u> -Rng_
Name of W	ell/Wells.or	Pipeline Serv	iced M	CLANAHA	N #551
Elevation	<u>5875</u> Complet	ion Date 12-5-9	7/ Total Dept	h395' Lar	nd Type
Casing St	rings, Sizes	, Types & Dept	hs	PUC SUR	face cas,
	Strings are	cemented, sho DEAT COMER		ypes used	Yes, wit
If Cement	or Bentonit	e Plugs have b	een placed, s \mathcal{N}_{U}	how depths	& amounts us
Depths &	thickness of	e Plugs have b water zones w Fresh	NU Pith descripti	, , , , , , , , , , , , , , , , , , ,	
Depths & Salty, Su	thickness of	water zones w Fresh	NU Pith descripti	, , , , , , , , , , , , , , , , , , ,	
Depths & Salty, Su Depths ga Ground be	thickness of lphur, Etc s encountered d depth with	water zones w <i>Fresh</i> d: type & amount	NU vith descripting 130 ⁻¹ NO 130 ⁻¹ of coke bree	on of wate:	r: Fresh, Cle
Depths & Salty, Su Depths ga Ground be	thickness of lphur, Etc s encountered d depth with co /bs c -f	water zones w Fresh d:	$\mathcal{N}_{\mathcal{U}}$ with description 130^{\prime} $\mathcal{D}_{\mathcal{U}}$ of coke bree $\mathcal{D}_{\mathcal{P}_{\mathcal{U}}}$ $\mathcal{D}_{\mathcal{U}}$.on of wate: 	r: Fresh, Cle 39.5' ωι+ 35, 275.265, 2
Depths & Salty, Su Depths ga Ground be <u>5</u> 4 Depths an	thickness of lphur, Etc s encountered d depth with co /bs c -f odes placed:	water zones w Fresh d:A type & amount Loresco 7	$\mathcal{N}_{\mathcal{U}}$ with description 130^{\prime} $\mathcal{D}_{\mathcal{U}}$ of coke bree $\mathcal{D}_{\mathcal{P}_{\mathcal{U}}}$ $\mathcal{D}_{\mathcal{U}}$	on of wate:	r: Fresh, Cle 39.5' ωι+ 35, 275.265, 2
Depths & Salty, Su Depths ga Ground be <u>54</u> Depths an Depths ve	thickness of lphur, Etc s encountered d depth with $CO / b_S - c - f$ odes placed: nt pipes place	water zones w Fresh d: μ type & amount Loresco T 375, 360, 35	NU with descripting 130^{\prime} NO of coke bree 00^{\prime} 000^{\prime} $00^$	on of wate: eze used: 320 310 28	r: Fresh, Cle 39.5' ωι+ 35, 275.265, 2
Depths & Salty, Su Depths ga Ground be <u>54</u> Depths an Depths ve	thickness of lphur, Etc s encountered d depth with $CO / b_S - c - f$ odes placed: nt pipes place	water zones w <i>Fresk</i> d: type & amount <i>Loresco</i> 7 375, 360, 35 ced:39,5'	NU with descripting 130^{\prime} NO of coke bree 00^{\prime} 000^{\prime} $00^$	on of wate: eze used: 320 310 28 0) E C I FEB2 OIL CO	r: Fresh, Cle 395'ωι+ 35, 2752652

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

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Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

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CPS GROUND BED CONSTRUCTION WORKSHEET

2269.4 K 444 TO K 444 TO AEMARKE (DOCO G24-28-10 Perforasion 54 bags ho	es for const	1.82 AN	29.1 n 100,	95 CA	- ANAH - 404	2 7	2.5.91	NAME		
$\begin{array}{c} \hline \\ \hline $	es for const	truction	n 10g)	95 CA	404	2 12	2.5.91		~	
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} $			n 10g)	95 CA					20	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D WATER TER bossom	AT 13			c . 1 /	22	SACUC	0.5.00	or to t	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	D WATER	AT 13			SIN 6		JACAS			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	TER bottom		0	Priller	ch 400	2, L	OGGEE	> 395		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	101701~	170'								
Log Anode 100 $$		<u></u>				,		<u></u>		
Log Anode 100 $-$ 105 $-$ 110 $-$ 120 $-$ 120 $-$ 120 $-$ 120 $-$ 120 $-$ 120 $-$ 120 $-$ 125 1.4 130 1.6 140 -6 140 -6 140 -6 150 2.0 150 2.0 150 2.0 160 2.2 160 2.2 180 2.1 180 2.1 180 2.1 190 1.8 195 1.6 200 1.5 210 1.1 210 1.1 230 7.2 230 7.2 230 7.2 230 7.2 230 7.2 240 2.9	Loresco									
100 105 110 115 120 125 120 125 120 125 120 125 120 125 120 125 140 140 140 145 2.0 150 2.0 150 2.0 150 2.0 150 2.0 150 2.0 155 2.0 185 1.90 1.8 1.90 1.8 1.90 1.90 1.90 1.90 1.90 1.10 210 1.1 220 2.0 2.10 2.20 2.0	ANODE		ANODE	DEPTH	L.20	ANODE	NTGED	L08	ANODE	
105 110 125 126 125 126 130 125 130 125 130 130 130 130 130 130 130 130 140 135 140 140 150 200 155 200 155 200 155 200 1.5 1.60 2.2 1.55 2.60 1.85 1.90 1.85 1.90 1.85 1.60 2.10 1.1 210 1.1 210 1.1 230 2.40 2.40 2.40 2.50 3.8 <td>·</td> <td>ANODE</td> <td></td> <td></td> <td>ANODE</td> <td></td> <td> </td> <td>ANODE</td> <td></td> <td>!</td>	·	ANODE			ANODE			ANODE		!
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	295	1.0	l	490			685			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1.1		495			690			_
20 1.4 25 1.4 30 1.6 35 1.6 40 1.6 40 1.6 40 1.6 40 2.0 45 2.0 50 2.0 50 2.0 50 2.2 65 2.2 70 2.2 80 2.1 85 1.9 90 1.8 95 1.6 205 1.0 210 1.1 215 1.5 220 2.0 235 2.4 240 2.9 245 3.4^{-1} 255 3.8	<u> </u>	31-1.		<u>500</u> 505			<u>695</u> 700			<u> </u> -
125 1.4 30 1.6 135 1.6 135 1.6 140 1.6 140 1.6 140 1.6 140 1.6 140 1.6 145 2.0 150 2.0 155 2.0 155 2.0 155 2.0 155 2.6 180 2.1 185 1.9 1.90 1.8 1.90 1.8 200 1.5 200 1.5 205 1.0 215 1.5 220 2.0 225 1.4 235 2.4 240 2.9 245 3.4^{-1} 250 3.8	315	<u>3.1-</u> <u>3.4</u>		510			ANODE	DEPTH	NO	
35 1.6 40 1.6 40 2.0 50 2.0 55 2.0 55 2.0 60 2.2 65 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.2 70 2.1 80 2.1 80 2.1 90 1.8 95 1.6 200 1.5 200 1.2 230 1.2 240 2.4 2.5 3.8 250 3.8	320	3.3- 3.4		515					COKE	c
40 7.6 145 2.0 150 2.0 155 2.0 155 2.0 160 2.2 165 2.2 165 2.2 165 2.2 160 2.2 165 2.2 165 2.2 175 2.6 180 2.1 190 1.8 190 1.8 200 1.5 205 1.0 210 1.1 215 1.5 220 2.0 225 7.4 230 7.2 235 2.4 240 2.9 245 3.5 255 3.8	325	3.4		520			1	375	2.6	
45 2.0 50 2.0 55 2.0 60 2.2 65 2.2 70 2.2 70 2.2 80 2.1 80 2.1 80 2.1 90 1.8 90 1.8 90 1.5 205 1.6 205 1.6 205 1.6 205 1.6 215 1.5 220 2.0 215 1.5 230 7.2 235 2.4 240 2.9 245 3.4 255 3.8 250 3.8		3.5-		525			_2	360	13.00 13.00 17.00 17.00	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	335	3.7		530			3	350	3.5	-
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	340	3.6-		535			4	<u>340</u> 330	3.6	-
60 2.2 65 2.2 70 2.2 70 2.2 75 2.6 80 2.1 80 2.1 80 2.1 90 1.8 90 1.8 90 1.5 205 1.0 210 1.1 215 1.5 220 2.0 225 1.4 230 1.2 235 2.4 240 2.9 245 3.4 250 3.5 255 3.8	<u> </u>	<u>3.9</u> 3.5-		<u>540</u> 545			5	320	2.5	-
165 2.2 70 2.2 175 2.6 180 2.1 185 1.9 190 1.8 190 1.8 190 1.8 205 1.6 205 1.0 215 1.5 220 2.0 225 7.4 235 2.4 240 2.9 245 3.4^{-1} 255 3.8 250 3.8	355	3.4		550			$\frac{-2}{7}$	320 310	<u>3.4</u> <u>3.1</u>	-
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	360	2.8-		555			8	285	1.0	
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- Region Correcton Specialist

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NORTHWESTERN NEW MEXICO Operator <u>Meridian Call Cp.</u> Location: Unit <u>O</u> Sec. <u>35</u> Twp <u>79</u> Rng/ <u>C</u> Name of Well/Wells or Pipeline Serviced <u>Om/et #6</u> Elevation <u>5572</u> Completion Date <u>2-23-73</u> Total Depth <u>413</u> Land Type <u>F</u> Casing Strings; Sizes, Types & Depths <u>202567 97 CASTAC CASING</u> <u>ND GAS WATEL, OF BOULDARS Water Encountered During Casing</u> <u>ND GAS WATEL, OF BOULDARS Water Encountered During Casing</u> <u>If Casing Strings are cemented</u> , show amounts & types used <u>Commented</u> <u>NOTH 24 SACKS</u> If Cement or Bentonite Plugs have been placed, show depths & amounts used <u>No plug 5</u> Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. <u>100 go 5</u> Ground bed depth with type & amount of coke breeze used: <u>413</u> <u>with</u> <u>160 (5016) SackS of AS burg</u> Depths anodes placed: <u>Mater and Assact</u> Depths vent pipes placed: <u>Bottom to Surface</u> Vent pipe perforations: <u>Up to 140</u> <u>JAN 31 1994</u> <u>Salty ONE AN 31 1994</u>					Ţ
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JIL CON. DIV.		fiorations: <u></u>	170.	JAN 31	1994
	Kemarks:	- <u></u>			

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

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Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number. Received by OCD: 4/26/2024 8:27:41 AM

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	LABOR	ATORY REPORT		TECH, Inc 333 East Mai
	()IL-FIEL	D WATER ANAL	YSIS	Farmingto New Mexic
				8740 505/327-331
lab Number:	25930315-06	2397W	Date Sampled	1 02-23-93
Client:	Meridian Oil		Date Receive	
	Omler #5 groun 825-28-10	dbed	Date Analyze Date Reporte	
DISSOLVED S	0L105:	ат та, а бабла аттор <u>а с организация странция с</u> ор	144 - 144 - 14 194 - 19 194 - 195 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196	Detection
		me/L	mg/L	Limit, mg/L
Calcium, Ca	-ba-sha	23.2	465	1.0
Magnesium, S		5.1	62	1.0
Sodium, Na+		25.1	577	5.0
Chloride, C	1	0.4	13	2.0
Sulfate, 60		47.6	2,290	5.0
Bicarbon ate		5.4 ND	329 ND	5.0 1.0
Carbonate,C Hydroxide,		ND	ND CIV	1.0
Total Disso	lved Solids (calc	ulated):	3,730	10.0
OTHER PROPE	RTIES:			
pH (units):		8.1		
reisistivit	y (ohm-meters):	2.2		
s pecific gr	avity at BOF:	1.0073		
room temper	ature (F):	72		
ND = Not De	tected at the sta	ated dectect;	ion limit	
Comments:	Fruitland Coal San Juan County Sampled by R. S			
Methods:	American Petrole for Analysis of			
	0-1			

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TECH, Inc.

LABORATORY REPORT 333 East Main Farmington **OIL-FIELD WATER ANALYSIS** New Mexico 87401 505/327-3311 Lab Number: 25930315-06 Date Sampled: 02-23-93 Meridian Dil 2397 W Client: Date Received: 03-15-93 Sample 1D: Omler #5 Date Analyzed: 03-17-93 groundbed 025-28-10 Location: Date Reported: 03-18-93 DISSOLVED SOLIDS: Detection me/L mq/L Limit, mg/L ····· --- --------Calcium, Ca++ 23.2 465 1.0 -1.0 Magnesium, Mg++ 5.i 62 577 5.0 Sodium, Na+ (calc) 25.1 Chloride, Cl-Ö.4 13 2.0 Sulfate, SO4---47.6 2,290 5,0 5.0 5.4 329 Bicarbonate, HCO3-1.0 Carbonate,CO3--ND ND Hydroxide, OH-ND ND 1.0 10.0 Total Dissolved Solids (calculated): 3,730 OTHER PROPERTIES: pH (units): 8.1 reisistivity (ohm-meters): specific gravity at 60F: 1.0073 room temperature (F): 72 ND = Not Detected at the stated dectection limit Fruitland Coal Comments: San Juan County, New Mexico Sampled by R. Smith American Petroleum Institute, "Recommended Practice Methods: for Analysis of Oil-Field Waters;" 2nd edition.

analyst

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APPENDIX C

Regulatory Correspondence

From:	Smith, Cory, EMNRD
То:	Long, Thomas
Cc:	Stone, Brian
Subject:	[EXTERNAL] RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891 - Incident # nAPP2121054964
Date:	Thursday, August 26, 2021 8:47:22 AM

[Use caution with links/attachments]

Tom,

No lets go ahead and get the delineation done you can always send in a stage 1 and 2 and the same time..

Cory Smith • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113 505.419.2687 | <u>Cory.Smith@state.nm.us</u> http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tjlong@eprod.com>
Sent: Thursday, August 26, 2021 8:21 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891
- Incident # nAPP2121054964

Cory,

We have to delineate for the Benzene, so might as well install groundwater monitoring wells in the source area and the four cardinal directions to delineate the hydrocarbon plume. Do we need to submit an Abatement Plan prior to installing the monitoring wells?

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office) 505-215-4727 (Cell) <u>tjlong@eprod.com</u>



From: Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>
Sent: Thursday, August 26, 2021 7:59 AM

To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian
bmstone@eprod.com>
Subject: [EXTERNAL] RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891 - Incident # nAPP2121054964

[Use caution with links/attachments] Tom.

What are your thoughts on getting an upgradient sample before moving forward.

I think it would be beneficial, however if your mobilizing to get an upgrade it would also make sense to do more delineation. To reduce cost etc.

Cory Smith • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113 505.419.2687 | <u>Cory.Smith@state.nm.us</u> http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tilong@eprod.com>
Sent: Thursday, August 26, 2021 7:50 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian
bmstone@eprod.com>
Subject: RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891
- Incident # nAPP2121054964

Cory,

Please find the attached lab report for the Bruce R Sullivan temporary well that was sampled on 8/17/2021. Groundwater impacts are confirmed. Benzene concentrations exceed the NMWQCC standard of 5 ppb with a result of 33 ppb and sulfates exceed the NMWQCC standard of 600 ppm with a result of 4,000 ppm. Sulfates could be background, but we will not be able to determine that until we have an up gradient sample. Would you like Enterprise to submit an abatement plan prior to additional delineation activities?

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office) 505-215-4727 (Cell) tjlong@eprod.com



From: Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>
Sent: Thursday, August 12, 2021 3:14 PM
To: Long, Thomas <<u>tjlong@eprod.com</u>>
Cc: Stone, Brian <<u>bmstone@eprod.com</u>>
Subject: [EXTERNAL] RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538,
-107.857891 - Incident # nAPP2121054964

[Use caution with links/attachments] Tom,

Thanks for the update please make sure to sample for 8026 full list and include Cation/Anion in the water sample.

Cory Smith • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1000 Rio Brazos | Aztec, NM 87410 505.334.6178 x115 | <u>Cory.Smith@state.nm.us</u> http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tilong@eprod.com>
Sent: Thursday, August 12, 2021 2:58 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian
bmstone@eprod.com>
Subject: RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891
- Incident # nAPP2121054964

Cory,

Please find the attached site sketch and lab reports for the 2D-1 Well Tie/Bruce R Sullivan #2 excavation. We found groundwater in the excavation on the morning we sampled it. We collected a groundwater sample as well. All sample results are below NMOCD Tier I remediation standards and NMWQCC standards. Entperise install a temporary well prior to backfilling the excavation. After the temporary well has been developed and allowed to set for 24 hours, it will be purged and sampled. If you have any questions, please call or email.

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office) 505-215-4727 (Cell) tjlong@eprod.com



From: Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>
Sent: Tuesday, August 10, 2021 8:04 AM
To: Long, Thomas <<u>tilong@eprod.com</u>>
Cc: Stone, Brian <<u>bmstone@eprod.com</u>>
Subject: [EXTERNAL] RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538,
-107.857891 - Incident # nAPP2121054964

[Use caution with links/attachments] Tom.

sips coffee my bad hehe..

Thanks for giving me everything I needed

Cory Smith • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1000 Rio Brazos | Aztec, NM 87410 505.334.6178 x115 | <u>Cory.Smith@state.nm.us</u> http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tilong@eprod.com>
Sent: Tuesday, August 10, 2021 8:03 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891
- Incident # nAPP2121054964

Cory,

The incident number is in the title of this email.

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office) 505-215-4727 (Cell) <u>tjlong@eprod.com</u>



From: Smith, Cory, EMNRD <<u>Cory.Smith@state.nm.us</u>>
Sent: Tuesday, August 10, 2021 8:01 AM
To: Long, Thomas <<u>tjlong@eprod.com</u>>
Cc: Stone, Brian <<u>bmstone@eprod.com</u>>
Subject: [EXTERNAL] RE: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538,
-107.857891 - Incident # nAPP2121054964

[Use caution with links/attachments] Tom,

Thanks for the update what is the incident# associated with the release?

Cory Smith • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1000 Rio Brazos | Aztec, NM 87410 505.334.6178 x115 | <u>Cory.Smith@state.nm.us</u> http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tilong@eprod.com>
Sent: Monday, August 9, 2021 2:42 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian
bmstone@eprod.com>
Subject: 2D-1 Well Tie/Bruce R Sullivan #2 - UL I Section 23 T28N R10W; 36.644538, -107.857891 Incident # nAPP2121054964

Cory,

This email is a notification that Entperise will be collecting soil samples at the 2D-1 Well Tie/Bruce R Sullivan #2 release site on Wednesday, August 11, 2021 at 11:00 a.m. If you have any questions, please call or email.

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401





This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.



APPENDIX D

Executed C-138 Solid Waste Acceptance Form

Released to Imaging: 4/26/2024 8:41:24 AM

Received by OCD: 4/26/2024 8:27:41 AM

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-138 Revised 08/01/11 *Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87505	documentation available for Division inspection. $97057-1125$
	APPROVAL TO ACCEP	
1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave	, Farmington NM 87401	PayKey: RB21200 PM: M Eddleman AFE: N54430
2. Originating Site: Bruce R Sullivan # 2		
3. Location of Material (Street Address, City, S23 T28N R10W UL I; 36.644538 -107.857		Aug /2021
4. Source and Description of Waste: Source: Remediation activities associated with Description: Hydrocarbon Condensate impacted Estimated Volume <u>30</u> vd ³ obls Known Volum	soil. ne (to be entered by the operator at the	
	ERTIFICATION STATEMENT OF	WASTE STATUS
I, Brian Stone , representative or author Generator Signature certify that according to the Resource Conservation regulatory determination, the above described was	orized agent for Enterprise Products Op on and Recovery Act (RCRA) and the U ste is: (Check the appropriate classificat	JS Environmental Protection Agency's July 1988
RCRA Exempt: Oil field wastes generate exempt waste. <u>Operator Use Only: Wast</u>	ed from oil and gas exploration and pro e Acceptance Frequency Monthly	duction operations and are not mixed with non-
characteristics established in RCRA regulatio	ns, 40 CFR 261.21-261.24, or listed has	ed the minimum standards for waste hazardous by zardous waste as defined in 40 CFR, part 261, above-described waste is non-hazardous. (Check
□ MSDS Information □ RCRA Hazardous W	/aste Analysis 🛛 Process Knowledge	e D Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE	TESTING CERTIFICATION STAT	FEMENT FOR LANDFARMS
I, Brian Stone 8-5-2021, representat Generator Signature the required testing/sign the Generator Waste Test	ive for Enterprise Products Operating at	uthorizes Envirotech, Inc. to complete
I, <u>Greg Crabbe</u> , representative for representative samples of the oil field waste have have been found to conform to the specific require of the representative samples are attached to demo 19.15.36 NMAC.	been subjected to the paint filter test and ements applicable to landfarms pursuant	d tested for chloride content and that the samples t to Section 15 of 19.15.36 NMAC. The results
5. Transporter: TBD OCD Permitted Surface Waste Management F	acility	
Name and Facility Permit #: Envirotech Inc. Address of Facility: Hilltop, NM Method of <u>Treatment and/or Disposal</u> :	Soil Remediation Facility * Permit #	: NM 01-0011
Waste Acceptance Status:		IED (Must De Meinteine L.A. D
PRINT NAME: Greg Crastree SIGNATURE: Jun Construction Surface Waste Management Facility Auto	TITLE: Ensire MA TELEPHONE NO.:	ED (Must Be Maintained As Permanent Record) $m_{49}cn$ DATE: $\frac{8/18/21}{18}$

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APPENDIX E

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report Enterprise Field Services, LLC 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) Ensolum Project No. 05A1226149



Photograph 1 Photograph Description: View of the initial excavation activities. Photograph 2 Photograph Description: View of in-process excavation activities. Photograph 3 Photograph Description: View of the final excavation.

SITE PHOTOGRAPHS

Closure Report Enterprise Field Services, LLC 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) Ensolum Project No. 05A1226149



Photograph 4

Photograph Description: View of the temporary monitoring well that was installed near the release point.



Photograph 5

Photograph Description: View of the site after restoration.





APPENDIX F

Tables

ENSOLUM

TABLE 1 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) SOIL ANALYTICAL SUMMARY													
Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX ¹	TPH	ТРН	ТРН	Total Combined	Chloride
		C- Composite G - Grab	(Feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO	MRO	TPH (GRO/DRO/MRO) ¹	(mg/kg)
									(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
		Natural Resources on Closure Criteria		10	NE	NE	NE	50				100	600
					Composite	Soil Samples Co	llected from S	tockpiled Soils					
SP-1	8.11.21	С	Stockpile	<0.020	<0.041	<0.041	<0.081	ND	26	<8.9	<45	26	<61
SP-2	8.11.21	С	Stockpile	<0.022	<0.043	<0.043	<0.087	ND	<4.3	<9.4	<47	ND	<60
					E	cavation Comp	osite Soil Sam	ples					
S-1	8.11.21	С	0 to 8	<0.021	<0.042	<0.042	<0.085	ND	<4.2	<10	<50	ND	<60
S-2	8.11.21	С	0 to 8	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.0	<45	ND	<59
S-3	8.11.21	С	0 to 8	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.9	<49	ND	<60
S-4	8.11.21	С	0 to 8	<0.018	<0.035	< 0.035	<0.071	ND	<3.5	<10	<50	ND	<60
S-5	8.11.21	С	0 to 8	<0.023	<0.047	<0.047	<0.094	ND	<4.7	<9.3	<47	ND	<60

Note: Concentrations in **bold** and yellow exceed the applicable NM EMNRD Closure Criteria

¹ = Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.

ND = Not Detected above the Practical Quantitation Limits or Reporting Limits

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbon

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

ENSOLUM

TABLE 2 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) GROUNDWATER ANALYTICAL SUMMARY - DETECTED VOLATILE ORGANIC COMPOUNDS									
Sample I.D.	Sample I.D. Sample Date Benzene Toluene Ethylbenzene Xylenes Naphthalene 1,2,4- 1,3,5- 1,3,5- 2-Methylnaphthalene ^{1,2} (µg/L) (µg/L)								
-	er Quality Control nission th Standards	5	1,000	700	620	30	NE	NE	NE
				Water Samp	le Collected fro	m the Excavation	on		
EW-1*	8.11.21	5.3	<5.0	<5.0	<7.5	NA	NA	NA	NA
			Wate	er Samples Coll	ected from the	Temporary San	nple Point		
MW-1	8.17.21	33	3.2	1.3	17	4.9	7.6	4.8	4.8

Notes:

Concentrations in **bold** and yellow exceed the applicable WQCC HHS

* = The sample collected from the excavation was only analyzed for benzene, toluene, ethlybenzene, and xylenes.

¹ = Constituent is not identified as "toxic pollutant" under 20.6.2 New Mexico Administrative Code (NMAC).

² = Constituent is not identified as a priority pollutant under the Federal Clean Water Act (CWA).

µg/L = microgram per liter

NA = Not Analyzed

NE = Not Established

<1.0 = The numeral (in this case "1.0") identifies the laboratory reporting limit (RL) or practical quantitation limit (PQL).

ENSOLUM

	TABLE 3 2D-1 Well Tie/Bruce R Sullivan #2 (7/29/21) GROUNDWATER ANALYTICAL SUMMARY - INORGANICS, PHYSICAL, AND CHEMICAL PROPERTIES													
Sample I.D.	Sample Date	(mg/L)	C hloride C hloride	Sulfate (mg/L)	(mg/r)	Bromide (mg/L)	(mg/L)	Calcium Calcium (mg/L)	Magnesium (mg/L)	E otassiru Dotassiru (mg/L)	Enipo S (mg/L)	(mg/r) Solids	Conductivity Conductivity (hmpos/cm)	(mg/T Cal Alkalinity
Comm Human Health	New Mexico Water Quality Control Commmission Human Health Standards and Domestic Water Supply Standards				11	NE	NE	NE	NE	NE	NE	1,000	NE	NE
					Water Samp	les Collecte	d from the Te	emporary Sar	mple Point					
MW-1	8.17.21	0.79	62	4,000	<1.00	<0.50	<2.5	530	78	13	1,300	6,300	7,200	427.2

Notes:

Concentrations in **bold** and yellow exceed the applicable WQCC HHS or DWSS

mg/L = milligram per liter

µmhos/cm = micromhos per centimeter

Ca = Calcium

NA = Not Analyzed

NE = Not Established

<1.0 = The numeral (in this case "1.0") identifies the laboratory reporting limit (RL) or practical quantitation limit (PQL).



APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

Released to Imaging: 4/26/2024 8:41:24 AM



August 17, 2021

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX:

RE: Bruce R Sullivan 2

OrderNo.: 2108592

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/12/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 2108592

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/17/2021 **CLIENT:** ENSOLUM Client Sample ID: S-1 **Project:** Bruce R Sullivan 2 Collection Date: 8/11/2021 11:00:00 AM Lab ID: 2108592-001 Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	ND	60	mg/Kg	20	8/12/2021 10:50:18 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/12/2021 11:13:18 AM	61933
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/12/2021 11:13:18 AM	61933
Surr: DNOP	97.7	70-130	%Rec	1	8/12/2021 11:13:18 AM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	8/12/2021 12:23:07 PM	R80488
Surr: BFB	110	70-130	%Rec	1	8/12/2021 12:23:07 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.021	mg/Kg	1	8/12/2021 12:23:07 PM	BS80488
Toluene	ND	0.042	mg/Kg	1	8/12/2021 12:23:07 PM	BS80488
Ethylbenzene	ND	0.042	mg/Kg	1	8/12/2021 12:23:07 PM	BS80488
Xylenes, Total	ND	0.085	mg/Kg	1	8/12/2021 12:23:07 PM	BS80488
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	8/12/2021 12:23:07 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank в
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 11

Hall Environmental Analysis Laboratory, Inc.

Lab Order **2108592** Date Reported: **8/17/2021**

CLIENT:	ENSOLUM	Client Sample ID: S-2
Project:	Bruce R Sullivan 2	Collection Date: 8/11/2021 11:05:00 AM
Lab ID:	2108592-002	Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	VP
Chloride	ND	59	mg/Kg	20	8/12/2021 11:02:38 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	8/12/2021 11:25:07 AM	61933
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	8/12/2021 11:25:07 AM	61933
Surr: DNOP	98.6	70-130	%Rec	1	8/12/2021 11:25:07 AM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	8/12/2021 12:46:42 PM	R80488
Surr: BFB	108	70-130	%Rec	1	8/12/2021 12:46:42 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.019	mg/Kg	1	8/12/2021 12:46:42 PM	BS80488
Toluene	ND	0.037	mg/Kg	1	8/12/2021 12:46:42 PM	BS80488
Ethylbenzene	ND	0.037	mg/Kg	1	8/12/2021 12:46:42 PM	BS80488
Xylenes, Total	ND	0.075	mg/Kg	1	8/12/2021 12:46:42 PM	BS80488
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	8/12/2021 12:46:42 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 11

Analytical Report Lab Order 2108592

Date Reported: 8/17/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUMClient Sample ID: S-3Project: Bruce R Sullivan 2Collection Date: 8/11/2021 11:10:00 AMLab ID: 2108592-003Matrix: MEOH (SOIL)Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	ND	60	mg/Kg	20	8/12/2021 11:14:58 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst:	SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/12/2021 11:36:48 AM	61933
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/12/2021 11:36:48 AM	61933
Surr: DNOP	98.0	70-130	%Rec	1	8/12/2021 11:36:48 AM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	8/12/2021 1:10:24 PM	R80488
Surr: BFB	110	70-130	%Rec	1	8/12/2021 1:10:24 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.019	mg/Kg	1	8/12/2021 1:10:24 PM	BS80488
Toluene	ND	0.037	mg/Kg	1	8/12/2021 1:10:24 PM	BS80488
Ethylbenzene	ND	0.037	mg/Kg	1	8/12/2021 1:10:24 PM	BS80488
Xylenes, Total	ND	0.075	mg/Kg	1	8/12/2021 1:10:24 PM	BS80488
Surr: 4-Bromofluorobenzene	110	70-130	%Rec	1	8/12/2021 1:10:24 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 11

Hall Environmental Analysis Laboratory, Inc.

Lab Order **2108592** Date Reported: **8/17/2021**

CLIENT	: ENSOLUM	Client Sample ID: S-4
Project:	Bruce R Sullivan 2	Collection Date: 8/11/2021 11:15:00 AM
Lab ID:	2108592-004	Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	VP
Chloride	ND	60	mg/Kg	20	8/12/2021 11:27:19 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	8/12/2021 11:48:32 AM	61933
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/12/2021 11:48:32 AM	61933
Surr: DNOP	97.5	70-130	%Rec	1	8/12/2021 11:48:32 AM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	8/12/2021 1:34:03 PM	R80488
Surr: BFB	103	70-130	%Rec	1	8/12/2021 1:34:03 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.018	mg/Kg	1	8/12/2021 1:34:03 PM	BS80488
Toluene	ND	0.035	mg/Kg	1	8/12/2021 1:34:03 PM	BS80488
Ethylbenzene	ND	0.035	mg/Kg	1	8/12/2021 1:34:03 PM	BS80488
Xylenes, Total	ND	0.071	mg/Kg	1	8/12/2021 1:34:03 PM	BS80488
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	8/12/2021 1:34:03 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 11

Hall Environmental Analysis Laboratory, Inc.

Lab Order 2108592

Date Reported: 8/17/2021

CLIENT	: ENSOLUM	Client Sample ID: S-5
Project:	Bruce R Sullivan 2	Collection Date: 8/11/2021 11:20:00 AM
Lab ID:	2108592-005	Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	8/12/2021 11:39:41 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	8/12/2021 12:00:19 PM	61933
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/12/2021 12:00:19 PM	61933
Surr: DNOP	99.0	70-130	%Rec	1	8/12/2021 12:00:19 PM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/12/2021 1:57:45 PM	R80488
Surr: BFB	103	70-130	%Rec	1	8/12/2021 1:57:45 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.023	mg/Kg	1	8/12/2021 1:57:45 PM	BS80488
Toluene	ND	0.047	mg/Kg	1	8/12/2021 1:57:45 PM	BS80488
Ethylbenzene	ND	0.047	mg/Kg	1	8/12/2021 1:57:45 PM	BS80488
Xylenes, Total	ND	0.094	mg/Kg	1	8/12/2021 1:57:45 PM	BS80488
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	8/12/2021 1:57:45 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 11

Hall Environmental Analysis Laboratory, Inc.

Lab Order 2108592

Date Reported: 8/17/2021

CLIENT	: ENSOLUM	Client Sample ID: SP-1
Project:	Bruce R Sullivan 2	Collection Date: 8/11/2021 11:25:00 AM
Lab ID:	2108592-006	Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	VP
Chloride	ND	61		mg/Kg	20	8/12/2021 11:52:01 AM	61930
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	SB
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/12/2021 12:12:02 PM	61933
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/12/2021 12:12:02 PM	61933
Surr: DNOP	99.4	70-130		%Rec	1	8/12/2021 12:12:02 PM	61933
EPA METHOD 8015D: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	26	4.1		mg/Kg	1	8/12/2021 2:21:29 PM	R80488
Surr: BFB	272	70-130	S	%Rec	1	8/12/2021 2:21:29 PM	R80488
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.020		mg/Kg	1	8/12/2021 2:21:29 PM	BS80488
Toluene	ND	0.041		mg/Kg	1	8/12/2021 2:21:29 PM	BS80488
Ethylbenzene	ND	0.041		mg/Kg	1	8/12/2021 2:21:29 PM	BS80488
Xylenes, Total	ND	0.081		mg/Kg	1	8/12/2021 2:21:29 PM	BS80488
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	8/12/2021 2:21:29 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 11

Hall Environmental Analysis Laboratory, Inc.

Lab Order **2108592** Date Reported: **8/17/2021**

CLIENT: ENSOLUM	Client Sample ID: SP-2
Project: Bruce R Sullivan 2	Collection Date: 8/11/2021 11:30:00 AM
Lab ID: 2108592-007	Matrix: MEOH (SOIL) Received Date: 8/12/2021 7:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	VP
Chloride	ND	60	mg/Kg	20	8/12/2021 12:04:21 PM	61930
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	8/12/2021 12:23:46 PM	61933
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/12/2021 12:23:46 PM	61933
Surr: DNOP	98.4	70-130	%Rec	1	8/12/2021 12:23:46 PM	61933
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.3	mg/Kg	1	8/12/2021 2:45:10 PM	R80488
Surr: BFB	105	70-130	%Rec	1	8/12/2021 2:45:10 PM	R80488
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.022	mg/Kg	1	8/12/2021 2:45:10 PM	BS80488
Toluene	ND	0.043	mg/Kg	1	8/12/2021 2:45:10 PM	BS80488
Ethylbenzene	ND	0.043	mg/Kg	1	8/12/2021 2:45:10 PM	BS80488
Xylenes, Total	ND	0.087	mg/Kg	1	8/12/2021 2:45:10 PM	BS80488
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	8/12/2021 2:45:10 PM	BS80488

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 11

Client: Project:	ENSO Bruce	LUM R Sullivan 2									
Sample ID: M	B-61930	SampTy	pe: ME	BLK	Tes	tCode: EF	PA Method	300.0: Anion	S		
Client ID: P	BS	Batch I	ID: 61	930	F	RunNo: 8(0485				
Prep Date:	8/12/2021	Analysis Da	te: 8/	12/2021	S	SeqNo: 28	337791	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: L	CS-61930	SampTy	pe: LC	s	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID: L	css	Batch I	ID: 61	930	F	RunNo: 8(0485				
Prep Date:	8/12/2021	Analysis Da	te: 8/	12/2021	S	SeqNo: 28	337792	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	96.2	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2108592

17-Aug-21

WO#:

QC SUMMARY REPORT Hall E

	WO#:	2108592
Environmental Analysis Laboratory, Inc.		17-Aug-21

Client: Project:	ENSOLU Bruce R S										
Sample ID:	MB-61933	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Batch	ID: 61	933	R	unNo: 8	0484				
Prep Date:	8/12/2021	Analysis D	ate: 8/	12/2021	S	eqNo: 2	837292	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	ND	10								
Motor Oil Range	e Organics (MRO)	ND	50								
Surr: DNOP		10		10.00		99.6	70	130			
Sample ID:	LCS-61933	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID:	LCSS	Batch	ID: 61	933	R	lunNo: 8	0484				
Prep Date:	8/12/2021	Analysis D	ate: 8/	12/2021	S	eqNo: 28	837293	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	46	10	50.00	0	92.4	68.9	141			
Surr: DNOP		4.7		5.000		94.5	70	130			
Sample ID:	2108592-001AMS) SampT	уре: МS	SD	Tes	tCode: EF	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID:	S-1	Batch	ID: 61	933	R	tunNo: 8	0484				
Prep Date:	8/12/2021	Analysis D	ate: 8/	12/2021	S	eqNo: 2	837572	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	46	9.2	45.91	0	101	15	184	3.07	23.9	
Surr: DNOP		4.4		4.591		96.5	70	130	0	0	
Sample ID:	2108592-001AMS	SampT	ype: MS	6	Tes	tCode: EF	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID:	S-1	Batch	ID: 61	933	R	tunNo: 8	0484				
Prep Date:	8/12/2021	Analysis D	ate: 8/	12/2021	S	eqNo: 2	837573	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	48	9.6	48.12	0	99.6	15	184			
Surr: DNOP		4.8		4.812		99.0	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Page	72	of	98
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WO#:	2108	8592

17-Aug-21

Client:	ENSOLUM									
Project:	Bruce R Sulliva	in 2								
Sample ID: 2.5ug g	ro lcs Sa	ampType:	LCS	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	I	Batch ID:	R80488	F	RunNo: 80	0488				
Prep Date:	Analy	sis Date:	8/12/2021	S	SeqNo: 28	337348	Units: mg/K	g		
Analyte	Res	ult PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	(GRO) 2	26 5	.0 25.00	0	103	78.6	131			
Surr: BFB	120	00	1000		119	70	130			
Sample ID: mb	Sa	mpType:	MBLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	I	Batch ID:	R80488	F	RunNo: 8(0488				
Prep Date:	Analy	sis Date:	8/12/2021	S	SeqNo: 28	337352	Units: mg/K	g		
Analyte	Res	ult PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	GRO) N	ID 5	.0							
0 050										
Surr: BFB	120	00	1000		118	70	130			
Surr: BFB Sample ID: 210859 2		00 ampType:		Tes	-		130 8015D: Gaso	line Rang	e	
	2-001ams Sa		MS		-	PA Method		line Rang	e	
Sample ID: 2108592	2 -001ams Sa	ampType: Batch ID:	MS	F	tCode: EF	PA Method 0488		U	e	
Sample ID: 2108592 Client ID: S-1	2 -001ams Sa	ampType: Batch ID: sis Date:	MS R80488 8/12/2021	F	tCode: EF RunNo: 80 SeqNo: 28	PA Method 0488	8015D: Gaso	U	e RPDLimit	Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte	2-001ams Sa I Analy Res	ampType: Batch ID: sis Date: ult PQ	MS R80488 8/12/2021	ਜ 2	tCode: EF RunNo: 80 SeqNo: 28	PA Method 0488 038457	8015D: Gaso Units: mg/K	g		Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte	2-001ams Sa I Analy Res	ampType: Batch ID: sis Date: ult PQ	MS R80488 8/12/2021 L SPK value	F S SPK Ref Val	tCode: EF RunNo: 80 SeqNo: 28 %REC	PA Method 0488 338457 LowLimit	8015D: Gaso Units: mg/K HighLimit	g		Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte Gasoline Range Organics	2-001ams Sa I Analy Res (GRO) 2 94	ampType: Batch ID: sis Date: ult PQ 23 4	MS R80488 8/12/2021 L SPK value .2 21.22 848.9	F S SPK Ref Val 0	tCode: EF RunNo: 8(SeqNo: 28 %REC 106 115	PA Method 0488 338457 LowLimit 61.3 70	8015D: Gaso Units: mg/K HighLimit 114	g %RPD	RPDLimit	Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte Gasoline Range Organics Surr: BFB	2-001ams Sa I Analy (GRO) 3 90 2-001amsd Sa	ampType: Batch ID: sis Date: ult PQ 23 4 30	MS R80488 8/12/2021 L SPK value .2 21.22 848.9 MSD	F S SPK Ref Val 0 Tes	tCode: EF RunNo: 8(SeqNo: 28 %REC 106 115	PA Method 0488 338457 LowLimit 61.3 70 PA Method	8015D: Gaso Units: mg/K HighLimit 114 130	g %RPD	RPDLimit	Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte Gasoline Range Organics Surr: BFB Sample ID: 2108592	2-001ams Sa I Analy Res (GRO) 2 90 2-001amsd Sa	ampType: Batch ID: sis Date: ult PQ 23 4 30 ampType: Batch ID:	MS R80488 8/12/2021 L SPK value .2 21.22 848.9 MSD	F S SPK Ref Val 0 Tes F	tCode: EF RunNo: 80 SeqNo: 28 %REC 106 115 tCode: EF	PA Method 0488 338457 LowLimit 61.3 70 PA Method 0488	8015D: Gaso Units: mg/K HighLimit 114 130	g %RPD line Rang	RPDLimit	Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte Gasoline Range Organics Surr: BFB Sample ID: 2108592 Client ID: S-1	2-001ams Sa I Analy Res (GRO) 2 90 2-001amsd Sa	ampType: Batch ID: sis Date: ult PQ 23 4 30 ampType: Batch ID: sis Date:	MS R80488 8/12/2021 L SPK value .2 21.22 848.9 MSD R80488 8/12/2021	F S SPK Ref Val 0 Tes F	tCode: EF RunNo: 80 SeqNo: 28 %REC 106 115 tCode: EF RunNo: 80 SeqNo: 28	PA Method 0488 338457 LowLimit 61.3 70 PA Method 0488	8015D: Gaso Units: mg/K HighLimit 114 130 8015D: Gaso	g %RPD line Rang	RPDLimit	Qual
Sample ID: 2108592 Client ID: S-1 Prep Date: Analyte Gasoline Range Organics Surr: BFB Sample ID: 2108592 Client ID: S-1 Prep Date:	2-001ams Sa I Analy (GRO) 2 97 2-001amsd Sa I Analy Res	ampType: Batch ID: sis Date: ult PQ 23 4 30 ampType: Batch ID: sis Date: ult PQ	MS R80488 8/12/2021 L SPK value .2 21.22 848.9 MSD R80488 8/12/2021	F SPK Ref Val 0 Tes F S	tCode: EF RunNo: 80 SeqNo: 28 %REC 106 115 tCode: EF RunNo: 80 SeqNo: 28	PA Method 0488 338457 LowLimit 61.3 70 PA Method 0488 338458	8015D: Gaso Units: mg/K HighLimit 114 130 8015D: Gaso Units: mg/K	g %RPD line Rang	RPDLimit e	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
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- B Analyte detected in the associated Method Blank
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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WO#:	2108592

17-Aug-21

	ENSOLUM									
Project: E	Bruce R Sullivan	2								
Sample ID: 100ng bt	ex Ics San	npType: LC	s	Tes	tCode: EF	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Ba	atch ID: BS	S80488	F	RunNo: 8	0488				
Prep Date:	Analysi	s Date: 8/	12/2021	S	SeqNo: 28	837356	Units: mg/k	٢g		
Analyte	Resul	t PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	6 0.025	1.000	0	96.0	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenz	ene 1.1		1.000		111	70	130			
Sample ID: mb	San	прТуре: МІ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	tiles		
Client ID: PBS	Ba	atch ID: BS	\$80488	F	RunNo: 8	0488				
Prep Date:	Analysi	s Date: 8/	/12/2021	S	SeqNo: 28	837360	Units: mg/k	٢g		
Analyte	Resul	t PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	NE	0.025								
Toluene	NE	0.050								
Ethylbenzene	NE	0.050								
Xylenes, Total	NE	0.10								
Surr: 4-Bromofluorobenz	ene 1.2	2	1.000		118	70	130			
Sample ID: 2108592-	002ams San	npType: M	S	Tes	tCode: EF	PA Method	8021B: Volat	tiles		
Client ID: S-2	Ba	atch ID: BS	680488	F	RunNo: 8	0488				
Prep Date:	Analysi	s Date: 8/	/12/2021	S	SeqNo: 28	838514	Units: mg/k	٢g		
Analyte	Resul	t PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.019	0.7491	0	92.8	80	120			
Toluene	0.70	0.037	0.7491	0	93.4	80	120			
Ethylbenzene	0.70	0.037	0.7491	0	93.6	80	120			
Xylenes, Total	2.1	0.075	2.247	0	94.0	80	120			
Surr: 4-Bromofluorobenz	ene 0.78	3	0.7491		104	70	130			
Sample ID: 2108592-	002amsd San	npType: M	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: S-2	Ba	atch ID: BS	\$80488	F	RunNo: 8	0488				
Prep Date:	Analysi	s Date: 8/	12/2021	S	SeqNo: 28	838515	Units: mg/k	٢g		
Analyte	Resul			SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70		0.7491	0	93.6	80	120	0.783	20	
Toluene	0.70			0	93.9	80	120	0.502	20	
Ethylbenzene	0.71		0.7491	0	95.1	80	120	1.59	20	
	0.4	0.075	2.247	0	95.0	80	120	1.11	20	
Xylenes, Total	2.1	0.075	2.241	0						

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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ived by	HALL	26/2024 8:2		На	all Environme			200 C 100 C 100 C 100 C 100			Page 74
	ANAL	ONMENTA SIS RATORY	AL		EL: 505-345-3 Vebsite: client	Albuquerq 3975 FAX:	ue, NI 505-3	45-4107	Sar	mple Log-In Cheo	ck List
Clier	nt Name:	ENSOLUM		Work	Corder Num	ber: 2108	592			RcptNo: 1	
Rece	eived By:	Cheyenne	Cason	8/12/20	021 7:00:00	AM		Ches	l	' mot	
Com	pleted By:	Sean Livii	ngston	8/12/20	021 8:01:53	AM		<	/	and the second s	
Revie	ewed By:	JRFI	12/21					_		1991-	
Chai	in of Cus	tody									
1. Is	Chain of Cu	istody comp	lete?			Yes	\checkmark	N	o 🗌	Not Present	
2. Ho	ow was the	sample deliv	ered?			Cour	ier				
Log											
3. W	as an attem	pt made to c	ool the sample	es?		Yes	\checkmark	N	o 🗌	NA 🗌	
4. We	ere all samp	les received	at a temperat	ure of >0° C	to 6.0°C	Yes	✓	N	o 🗌		
5. Sa	ample(s) in p	oroper contai	ner(s)?			Yes	\checkmark	Ν	o 🗌		
6. Su	fficient sam	ple volume fe	or indicated te	st(s)?		Yes	\checkmark	No			
7. Are	e samples (e	except VOA	and ONG) pro	perly preserv	ed?	Yes	\checkmark	No			
8. Wa	as preservat	ive added to	bottles?			Yes		No		NA 🗌	
9. Re	ceived at lea	ast 1 vial witl	h headspace <	1/4" for AQ	JOA?	Yes		No		NA 🔽	
10. We	ere any sam	ple containe	ers received br	oken?		Yes		N	•	# of preserved	_
11.Do	es paperwo	rk match bot	tle labels?			Yes	\checkmark	No		bottles checked for pH:	
			in of custody)								inless noted)
12. Are	e matrices c	orrectly iden	tified on Chain	of Custody?	Ì		\checkmark	No		Adjusted?	
			ere requested?				\checkmark	No		10	1 ol
		ig times able stomer for a	to be met? uthorization.)			Yes	\checkmark	No		Checked by: KP	7 0/12/
Speci	al Handli	ng (if app	licable)								
15. W	as client not	ified of all di	screpancies w	ith this order	?	Yes		N	o 🗌	NA 🗹	
	Person I	Notified:	AND IN TO ANOTHING TO		Date	: [an bereitigen under		
	By Who				Via:	🗌 eMa	il 🗌] Phone [Fax	In Person	
	Regardii Client In	ng: structions:						_			
16. Ad	dditional ren										
	ooler Inforr										
	Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Da	ite	Signed	By		
1		2.9	Good					3	_,		

Page 1 of 1

Record It necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	1/21	Relinquished by:	hu 1432 7 July	Pate: Time: Relinquished hv:		8:27	:41.		8/11/2111:30 5 SP-2	8/11/21 11:25 5 SP-1	2/11/21 11:20 5 S-5	8/1/21 (1:15 5 S-4	8/11/21/11/18 5 5-3	8/1/21 11:000 5 S-2	S/11/41 11:00 S S-1	Date Time Matrix Sample Name		EDD (Type)		Accreditation: Az Compliance	□ Standard □ Level 4 (Full Validation)		email or Fax#: KSnmerxDodshan in		UILLE	Mailing Address: 606 S. ReaGonade, SuiteA	P	Slient: Ensalum, LLC	Chain-of-Custody Record
	Cel Cam 8/12/01/0700	Received by: Via: Date Time	Mint Walt 8/11/21/432						1402 Pro Cool 007	1402 201 600 000	1 tion as (ac) as	1402 m / 60 004	1402 jar 1001 003	(Hozian coo) 002	1402 jar (00) 001	Type and # Type ここのするない。	mp(including cF): 2. Q - O		Х (Й	Sampler: L. Davie II	K. Summers		Proiect Manager:	05A1226149	Project #:	Bruce K Sullivan L		□ Standard KRush 1001	Turn-Around Time: Same-Du
s possibility. Any			Remarks:	-				/	XX	XX	イメ	XX	XX	XX	X X	TPH	X / M 1 8015D Pestic	(GF	r0 /	DR	0/1	/IRC	· -			4901			
sub-contracted da	RB2	Von AT	PMTE													EDB PAH	(Meth s by 8:	od { 310	504. or 8	1)					Tel. 505-345-3975	4901 Hawkins NE	www.	ANA	HA
This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report	1200	AFETINON	Tave Long (*	\times	X	X	×	×.	× (CI) F 8260 8270	A 8 M , Br,) (VOA) (Sem Colifo	NO3) i-VC	3, N DA)				D₄ t)	Anal	רט	Ξ - Albuquerque, NM 87109	Ð	NALYSIS LABO	I ENVTRONMENTAL
alytical report.			Same-Day																						7	109		LABORATORY	TENTAL

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Released to Imaging: 4/26/2024 8:41:24 AM



August 17, 2021

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX:

RE: Bruce R Sullivan 2

OrderNo.: 2108593

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/12/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 2108593

Date Reported: 8/17/2021

CLIENT	: ENSOLUM			Cl	ient Sa	mple I	D:EV	V-1		
Project:	Bruce R Sullivan 2			(Collecti	ion Dat	e: 8/1	1/2021 11:	35:00 AM	
Lab ID:	2108593-001	Matrix:	AQUEC	OUS	Receiv	ed Dat	e: 8/1	2/2021 7:0	0:00 AM	
Analyses	5	R	lesult	RL	Qual	Units	DF	Date Anal	lyzed	Batch
EPA ME	THOD 8260: VOLATILES S	HORT LIST							Analyst:	ССМ
Benzen	9		5.3	5.0		µg/L	1	8/12/2021	12:48:00 PM	R80483
Toluene			ND	5.0		µg/L	1	8/12/2021	12:48:00 PM	R80483
Ethylber	nzene		ND	5.0		µg/L	1	8/12/2021	12:48:00 PM	R80483
Xylenes	, Total		ND	7.5		µg/L	1	8/12/2021	12:48:00 PM	R80483
Surr:	1,2-Dichloroethane-d4		86.5	70-130		%Rec	1	8/12/2021	12:48:00 PM	R80483
Surr:	Dibromofluoromethane		87.4	70-130		%Rec	1	8/12/2021	12:48:00 PM	R80483
Surr:	Toluene-d8		95.5	70-130		%Rec	1	8/12/2021	12:48:00 PM	R80483

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 2

Client:ENSOLUMProject:Bruce R Sullivan 2

Troject. Diuce i	K Sullivali 2									
Sample ID: mb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: PBW	Batc	h ID: R8	0483	F	RunNo: 8	0483				
Prep Date:	Analysis E	Date: 8/	12/2021	S	SeqNo: 2	837323	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.1	70	130			
Surr: Toluene-d8	9.5		10.00		95.1	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 2

WO#: 2108593 17-Aug-21

Page	79	01	⁶ 98	
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ived by OCD: 4/26/2024 8: HALL ENVIRONMENT		Hall Envir	onmental Analysis Lab 4901 Haw	kins NE		Page
ANALYSIS			Albuquerque, NM 345-3975 FAX: 505-34 clients.hallenvironmen	187109 Sar 45-4107	nple Log-In Che	ck List
Client Name: ENSOLUM		Work Order	Number: 2108593		RcptNo: 1	
Received By: Cheyenne	Cason	8/12/2021 7:0	0:00 AM	Chul		
Completed By: Sean Livi	ngston	8/12/2021 8:0	7:39 AM	Chul S-L	, ,	
Reviewed By: JRE/	12/21				1)99	
Chain of Custody						
1. Is Chain of Custody comp	lete?		Yes 🖌	No 🗌	Not Present	
2. How was the sample deliv	ered?		Courier			
Log In 3. Was an attempt made to o	cool the samples?		Yes ✔	No 🗌	NA 🗌	
4. Were all samples received	at a temperature	of >0° C to 6.0°	C Yes 🗹	No 🗌	NA 🗌	
5. Sample(s) in proper conta	ner(s)?		Yes 🗸	No 🗌		
6. Sufficient sample volume f	or indicated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA	and ONG) proper	ly preserved?	Yes 🗸	No 🗌		
8. Was preservative added to	bottles?		Yes	No 🗹	NA 🗌	
9. Received at least 1 vial wit	h headspace <1/4	" for AQ VOA?	Yes 🗹	No 🗌		
10. Were any sample containe	ers received broke	en?	Yes	No 🗹	# of preserved	/
11.Does paperwork match bo (Note discrepancies on cha			Yes 🗹	No 🗌	bottles checked for pH:	unless noted)
12. Are matrices correctly iden	tified on Chain of	Custody?	Yes 🗸	No 🗌	Adjusted?	
13. Is it clear what analyses we	ere requested?		Yes 🗹	No 🗌		
14. Were all holding times able (If no, notify customer for a			Yes 🗹	No 🗌	Checked by: HPC	1 8/12/
Special Handling (if app	licable)					
15. Was client notified of all d	screpancies with	this order?	Yes	No 🗌	NA 🗹	
Person Notified:	ne no here and a second se	MALANIN MALANIN	Date:			
By Whom:		and would be an included at	Via: eMail 🗌	Phone 🗌 Fax	In Person	
Regarding: Client Instructions:						
16. Additional remarks:						
17. Cooler Information						
Cooler No Temp °C	Condition S	eal Intact Seal	No Seal Date	Signed By		
1 2.9	Good					

Page 1 of 1

		a will he	ted dat	contrac	ny sub-	ility. A	possib	This serves as	credited laboratories	ontracted to other ac	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	
	Ū	200	N	2	55			112M 0700	S me.	X	1862 / Minter Walder	ived 1 1/21 18
NS457 (Save Day	25	PM Tom	AFEH	NY S	PM	Remarks:	Rem	Date Time	Via:	Received by:	ime: Relinquished by:	2
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					jer .	_	X	100	Hachs	3×40mL-VOA	11:35 W2 EW-1	8/11/20 11:
8270	8260		RCRA	EDB (BTEX	HEAL NO. 2109593	Preservative Type	Container Type and #	ne Matrix Sample Name	Date Time
			-				/₩	-0 - 2.4 (°C)	(including CF):79	Cooler Temp(including CF).		234) - 1
							BE		1	# of Coolers:	ype)	□ EDD (Type)
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2561		IO ₂ ,	521			_	MB		. Danie	Sampler:	Az Comp	Accreditation:
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ent)		SO ₄					1)		ger:	http://www.con/Project Manager:	K-Summerica avio	email or Fax#:
Analysis Request	ysis R	Anal						149	221	DSA		Phone #: /
Fax 505-345-4107	Fax 5		-3975	Tel. 505-345-3975	. 505	Tel				Project #:	NN 87410	Aztor.
Albuquerque, NM 87109	buquer	- Alt	NE	4901 Hawkins NE	1 Ha	490		Sullivian 2	7	Bruce	dress: 606 S. Rio Grande SuiteA	Mailing Address:
www.hallenvironmental.com	/ironm	allenv	ww.h	¥						Project Name:		Po
NALYSIS LABORATORY	SIS	K	A i					100% Sure-Du	A Rush_	□ Standard	Isolum, LLC	geðlient:
ENVIRONMENTAL	I VI	Π		I					Time:	Turn-Around Time:	hain-of-Custody Record	00



August 25, 2021

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410 TEL: (903) 821-5603 FAX:

RE: Bruce R Sullivan 2

OrderNo.: 2108941

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/18/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2108941

Date Reported: 8/25/2021

CLIENT: ENSOI	LUM		C	lient Sa	ample ID	: MV	W-1		
Project: Bruce l	R Sullivan 2			Collect	ion Date	: 8/1	7/2021 10:	20:00 AM	
Lab ID: 210894	1-001	Matrix: AQUEOUS	5	Recei	ved Date	: 8/1	8/2021 7:0	0:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Ana	lyzed	Batch
EPA METHOD 30	0.0: ANIONS							Analyst:	LRN
Fluoride		0.79	0.50		mg/L	5	8/18/2021	3:58:14 PM	R8064
Chloride		62	2.5		mg/L	5	8/18/2021	3:58:14 PM	R8064
Nitrogen, Nitrite (A	As N)	ND	0.50		mg/L	5	8/18/2021	3:58:14 PM	R8064
Bromide		ND	0.50		mg/L	5	8/18/2021	3:58:14 PM	R8064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/18/2021	3:58:14 PM	R8064
Phosphorus, Orth	ophosphate (As P)	ND	2.5		mg/L	5	8/18/2021	3:58:14 PM	R8064
Sulfate		4000	100	*	mg/L	200	8/20/2021	2:33:45 AM	A8067
SM2510B: SPEC	IFIC CONDUCTANCE							Analyst:	CAS
Conductivity		7200	10		µmhos/c	1	8/19/2021	12:47:19 PM	R8067
SM2320B: ALKA	LINITY							Analyst:	CAS
Bicarbonate (As C	CaCO3)	427.2	20.00		mg/L Ca	1	8/19/2021	12:47:19 PM	R8067
Carbonate (As Ca	CO3)	ND	2.000		mg/L Ca	1	8/19/2021	12:47:19 PM	R8067
Total Alkalinity (as	s CaCO3)	427.2	20.00		mg/L Ca	1	8/19/2021	12:47:19 PM	R8067
SM2540C MOD:	TOTAL DISSOLVED SC	LIDS						Analyst:	KS
Total Dissolved Se	olids	6300	100	*D	mg/L	1	8/24/2021	7:04:00 PM	62125
EPA METHOD 20	0.7: METALS							Analyst:	ELS
Calcium		530	20		mg/L	20	8/19/2021	10:39:11 AM	62050
Magnesium		78	1.0		mg/L	1	8/19/2021	8:42:50 AM	62050
Potassium		13	1.0		mg/L	1	8/19/2021	8:42:50 AM	62050
Sodium		1300	20		mg/L	20	8/19/2021	10:39:11 AM	62050
EPA METHOD 82	60B: VOLATILES							Analyst:	ССМ
Benzene		33	1.0		µg/L	1	8/19/2021	12:59:00 AM	R8060
Toluene		3.2	1.0		µg/L	1	8/19/2021	12:59:00 AM	R8060
Ethylbenzene		1.3	1.0		µg/L	1	8/19/2021	12:59:00 AM	R8060
Methyl tert-butyl e	ther (MTBE)	ND	1.0		µg/L	1	8/19/2021	12:59:00 AM	R8060
1,2,4-Trimethylbe	nzene	7.6	1.0		µg/L	1	8/19/2021	12:59:00 AM	R8060
1,3,5-Trimethylbe		4.8	1.0		µg/L	1		12:59:00 AM	
1,2-Dichloroethan	. ,	ND	1.0		µg/L	1		12:59:00 AM	
1,2-Dibromoethan	e (EDB)	ND	1.0		µg/L	1		12:59:00 AM	
Naphthalene		4.9	2.0		µg/L	1		12:59:00 AM	
1-Methylnaphthale		ND	4.0		µg/L	1		12:59:00 AM	
2-Methylnaphthale	ene	4.8	4.0		µg/L	1		12:59:00 AM	
Acetone		ND	10		µg/L	1		12:59:00 AM	
Bromobenzene	1	ND	1.0		µg/L	1		12:59:00 AM	
Bromodichlorome	inane	ND	1.0		µg/L	1		12:59:00 AM	
Bromoform		ND ND	1.0 3.0		µg/L	1	8/19/2021	12:59:00 AM	R8060 R8060

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: *

* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 1 of 11

Analytical Report Lab Order 2108941

Hall Environmental Analys		Date Reported: 8/25/202	21			
CLIENT: ENSOLUM Project: Bruce R Sullivan 2 Lab ID: 2108941-001	Matrix: AQUEOUS	C		e: 8/1	W-1 7/2021 10:20:00 AM 8/2021 7:00:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst	ССМ
2-Butanone	ND	10	μg/L	1	8/19/2021 12:59:00 AM	R80607
Carbon disulfide	ND	10	μg/L	1	8/19/2021 12:59:00 AM	R80607
Carbon Tetrachloride	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
Chlorobenzene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
Chloroethane	ND	2.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
Chloroform	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
Chloromethane	ND	3.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
2-Chlorotoluene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
4-Chlorotoluene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
cis-1,2-DCE	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
Dibromochloromethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
Dibromomethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,2-Dichlorobenzene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
1,3-Dichlorobenzene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
1,4-Dichlorobenzene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
Dichlorodifluoromethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,1-Dichloroethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,1-Dichloroethene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
1,2-Dichloropropane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,3-Dichloropropane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
2,2-Dichloropropane	ND	2.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,1-Dichloropropene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
Hexachlorobutadiene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
2-Hexanone	ND	10	μg/L	1	8/19/2021 12:59:00 AM	R80607
Isopropylbenzene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
4-Isopropyltoluene	ND	1.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
4-Methyl-2-pentanone	ND	10	μg/L	1	8/19/2021 12:59:00 AM	R80607
Methylene Chloride	ND	3.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
n-Butylbenzene	ND	3.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
n-Propylbenzene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
sec-Butylbenzene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
Styrene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
tert-Butylbenzene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	8/19/2021 12:59:00 AM	R80607
	NB	10			0/40/0004 40 50 00 414	D 00007

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

1.0

1.0

ND

ND

* **Qualifiers:**

trans-1,2-DCE

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

1

1

Е Value above quantitation range

J Analyte detected below quantitation limits

Р Sample pH Not In Range RL

Reporting Limit

µg/L

µg/L

Page 2 of 11

8/19/2021 12:59:00 AM R80607

8/19/2021 12:59:00 AM R80607

Tetrachloroethene (PCE)

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2108941

Date Reported: 8/25/2021

CLIENT:ENSOLUMProject:Bruce R Sullivan 2Lab ID:2108941-001	Client Sample ID: MW-1 Collection Date: 8/17/2021 10:20:00 AM Matrix: AQUEOUS Received Date: 8/18/2021 7:00:00 AM							
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 8260B: VOLATILES					Analyst:	ССМ		
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
1,1,1-Trichloroethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
1,1,2-Trichloroethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
Trichloroethene (TCE)	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
Trichlorofluoromethane	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
1,2,3-Trichloropropane	ND	2.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
Vinyl chloride	ND	1.0	µg/L	1	8/19/2021 12:59:00 AM	R80607		
Xylenes, Total	17	1.5	µg/L	1	8/19/2021 12:59:00 AM	R80607		
Surr: 1,2-Dichloroethane-d4	80.3 7	0-130	%Rec	1	8/19/2021 12:59:00 AM	R80607		
Surr: 4-Bromofluorobenzene	96.5 7	0-130	%Rec	1	8/19/2021 12:59:00 AM	R80607		
Surr: Dibromofluoromethane	81.4 7	0-130	%Rec	1	8/19/2021 12:59:00 AM	R80607		
Surr: Toluene-d8	92.1 7	0-130	%Rec	1	8/19/2021 12:59:00 AM	R80607		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 11

50

1.0

50.00

Page	85	of 98

WO#	: 2108941
	25-Aug-21

Client: Project:	ENSOLI Bruce R	UM Sullivan 2									
Sample ID:	MB-62050	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	200.7: Metals			
Client ID:	PBW	Batch	n ID: 620	050	F	RunNo: 8	0648				
Prep Date:	8/18/2021	Analysis D	ate: 8/	19/2021	S	SeqNo: 2	844988	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium Magnesium		ND ND	1.0 1.0								
Potassium		ND	1.0								
Sodium		ND	1.0								
Sample ID:	LLLCS-62050	SampT	ype: LC	SLL	Tes	tCode: E	PA Method	200.7: Metals			
Client ID:	BatchQC	Batch	n ID: 620	050	F	RunNo: 8	0648				
Prep Date:	8/18/2021	Analysis D	ate: 8/	19/2021	S	SeqNo: 2	844990	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		ND	1.0	0.5000	0	107	50	150			
Magnesium		ND	1.0	0.5000	0	101	50	150			
Potassium		ND	1.0	0.5000	0	88.8	50	150			
Sodium		ND	1.0	0.5000	0	105	50	150			
Sample ID:	LCS-62050	SampT	ype: LC	S	Tes	tCode: E	PA Method	200.7: Metals			
Client ID:	LCSW	Batch	n ID: 620	050	F	RunNo: 8	0648				
Prep Date:	8/18/2021	Analysis D	ate: 8/	19/2021	S	SeqNo: 2	844992	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		49	1.0	50.00	0	98.1	85	115			
Magnesium		50	1.0	50.00	0	99.6	85	115			
Potassium		50	1.0	50.00	0	99.1	85	115			

0

99.5

85

115

Qualifiers:

Sodium

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- в Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 4 of 11

2108941	WO#:	
25-Aug-21		

Client: H	ENSOLUM									
Project: H	Bruce R Sullivan 2									
Sample ID: MB	Samp	Type: mb	olk	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID: PBW	Bate	h ID: R8	0640	F	RunNo: 80	0640				
Prep Date:	Analysis	Date: 8/	18/2021	S	SeqNo: 28	844707	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10					-			
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophospha		0.50								
Sample ID: LCS	Samp	Type: Ics	;	Tes	tCode: EF	PA Method	300.0: Anions	5		
Client ID: LCSW	Bato	h ID: R8	0640	F	RunNo: 8	0640				
Prep Date:	Analysis	Date: 8/	18/2021	S	SeqNo: 28	844715	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.4	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.4	90	110			
Bromide	2.4	0.10	2.500	0	97.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			
Phosphorus, Orthophospha	te (As P 4.6	0.50	5.000	0	91.0	90	110			
Sample ID: MB	Samp	Type: mb	olk	Tes	tCode: EF	PA Method	300.0: Anions	5		
Client ID: PBW	Bate	h ID: A8	0673	F	RunNo: 8	0673				
Prep Date:	Analysis	Date: 8/ 3	20/2021	S	SeqNo: 28	845972	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								
Sample ID: LCS	Samp	Type: Ics	;	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID: LCSW	Bate	ch ID: A8	0673	F	RunNo: 8	0673				
Prep Date:	Analysis	Date: 8/	20/2021	S	SeqNo: 28	845973	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.7	0.50	10.00	0	96.7	90	110			

Qualifiers:

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- S % Recovery outside of range due to dilution or matrix

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

ENSOLUM

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:

Sample ID: 100ng 8260 lcs	SampT	Type: LC	S	TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R80607			F	RunNo: 8	0607				
Prep Date:	Analysis Date: 8/18/2021			S	SeqNo: 2843673 Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	20	1.0	20.00	0	97.8	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.9	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.1	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		86.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.6	70	130			
Sample ID: mb	SampT	Type: ME	BLK	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batcl	h ID: R8	0607	F	RunNo: 8	0607				
Prep Date:	Analysis E	Date: 8/	18/2021	S	SeqNo: 2	844681	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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- RL Reporting Limit

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WO#: 2108941

	WO#:	2108941
ental Analysis Laboratory, Inc.		25-Aug-21

Client:ENSOLUMProject:Bruce R Sullivan 2

Sample ID: mb	SampType: MBLK			Tes	TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R80607			RunNo: 80607							
Prep Date:	Analysis D	ate: 8/	18/2021	S	SeqNo: 2	844681	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
4-Chlorotoluene	ND	1.0									
cis-1,2-DCE	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3-Dichloropropane	ND	1.0									
2,2-Dichloropropane	ND	2.0									
1,1-Dichloropropene	ND	1.0									
Hexachlorobutadiene	ND	1.0									
2-Hexanone	ND	10									
Isopropylbenzene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Methylene Chloride	ND	3.0									
n-Butylbenzene	ND	3.0									
n-Propylbenzene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
tert-Butylbenzene	ND	1.0									
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	2.0									
Tetrachloroethene (PCE)	ND	1.0									
trans-1,2-DCE	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
Trichloroethene (TCE)	ND	1.0									
Trichlorofluoromethane	ND	1.0									
1,2,3-Trichloropropane	ND	2.0									

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Released to	Imaging:	4/26/2024	8:41:24 AM

Client: Project:	ENSOLUM Bruce R Sullivan 2	
Sample ID: mb	SampType: MBLK	TestCode: EPA
Client ID: PBW	Batch ID: R80607	RunNo: 8060
Prep Date:	Analysis Date: 8/18/2021	SeqNo: 2844

Sample ID: mb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260B: VOLA	TILES		
Client ID: PBW	Batch	n ID: R8	0607	F	RunNo: 8	0607				
Prep Date:	Analysis D	ate: 8/	18/2021	5	SeqNo: 2	844681	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.8	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	8.4		10.00		84.4	70	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Analyte detected in the associated Method Blank в

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

WO#: 2108941 25-Aug-21

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

L.		WO#:	2108941
Hall Env	ironmental Analysis Laboratory, Inc.		25-Aug-21
Client:	ENSOLUM		

Project: Bruce	R Sullivan 2									
Sample ID: Ics-1 98.7uS e	C Samp	Гуре: Ics	5	Tes	tCode: SI	M2510B: Sp	pecific Condu	uctance		
Client ID: LCSW	Batc	h ID: R8	0675	R	RunNo: 8	0675				
Prep Date:	Analysis [Date: 8/	19/2021	S	SeqNo: 2	846075	Units: µmh	os/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.70	0	101	85	115			

Qualifiers:

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- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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QC SUMMARY REPORT

ND

Result

79.64

20.00

Batch ID: R80675

PQL

20.00

SPK value SPK Ref Val

80.00

Analysis Date: 8/19/2021

SampType: Ics

UC SUM Hall Enviro					ory, Inc.					WO#:	2108941 25-Aug-21
Client: Project:	ENSOLUN Bruce R Si										
Sample ID: mb-1	alk	SampT	Гуре: т	blk	Tes	tCode: S	M2320B: AI	kalinity			
Client ID: PBW		Batcl	h ID: R	80675	F	RunNo: 8	0675				
Prep Date:		Analysis D	Date: 8	/19/2021	S	SeqNo: 2	846009	Units: mg/L	. CaCO3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as Ca	CO3)	ND	20.00					-			
Sample ID: Ics-1	alk	SampT	Type: Ic	s	Tes	tCode: S	M2320B: AI	kalinity			
Client ID: LCSV	v	Batcl	h ID: R	80675	F	RunNo: 8	0675				
Prep Date:		Analysis D	Date: 8	/19/2021	S	SeqNo: 2	846011	Units: mg/L	CaCO3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as Cat	CO3)	79.68	20.00	80.00	0	99.6	90	110			
Sample ID: mb-2	alk	SampT	Type: m	blk	Tes	tCode: S	M2320B: AI	kalinity			
Client ID: PBW		Batcl	h ID: R	80675	F	RunNo: 8	0675				
Prep Date:		Analysis D	Date: 8	/19/2021	S	SeqNo: 2	846049	Units: mg/L	CaCO3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit

Total Alkalinity (as CaCO3)

Sample ID: Ics-2 alk

Total Alkalinity (as CaCO3)

Client ID: LCSW

Prep Date:

Analyte

% Recovery outside of range due to dilution or matrix S

в Analyte detected in the associated Method Blank

TestCode: SM2320B: Alkalinity

LowLimit

90

Units: mg/L CaCO3

110

%RPD

RPDLimit

Qual

HighLimit

RunNo: 80675

%REC

99.6

0

SeqNo: 2846051

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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	OLUM ee R Sullivan 2			
Sample ID: MB-62125	SampType: MBLK	TestCode: SM2540C M	OD: Total Dissolved Solids	
Client ID: PBW	Batch ID: 62125	RunNo: 80763		
Prep Date: 8/23/2021	Analysis Date: 8/24/2021	SeqNo: 2849366	Units: mg/L	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Total Dissolved Solids	ND 20.0			
Sample ID: LCS-62125	SampType: LCS	TestCode: SM2540C M	OD: Total Dissolved Solids	
Client ID: LCSW	Batch ID: 62125	RunNo: 80763		
Prep Date: 8/23/2021	Analysis Date: 8/24/2021	SeqNo: 2849367	Units: mg/L	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Total Dissolved Solids	1030 20.0 1000	0 103 80	120	

Qualifiers:

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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2108941

25-Aug-21

WO#:

	Page	93	0	f 98	
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ived by OCD: 4/26/2024 a HALL ENVIRONMEN ANALYSIS LABORATORY	TAL	TE	L: 505-345-3	ntal Analysis Le 4901 Ha Albuquerque, N 3975 FAX: 505-, ts.hallenvironme	wkins NE IM 87109 345-4107	Pag
Client Name: ENSOLU	JM	Work	Order Num	ber: 2108941		RcptNo: 1
Received By: Cheyen	ne Cason	8/18/20	21 7:00:00	AM	Chul	
Completed By: Isaiah C	Ortiz	8/18/20	21 10:07:40	D AM	Chul I-C	3-4
Reviewed By: 5P	A 8.	18,21			¥ -	
Chain of Custody						
1. Is Chain of Custody con	nplete?			Yes 🖌	No 🗌	Not Present
2. How was the sample de	livered?			Courier		
Log In 3. Was an attempt made to	o cool the same	les?		Yes 🗸	No 🗌	
4. Were all samples receive	ed at a tempera	ature of >0° C	to 6.0°C	Yes 🗸	No 🗌	NA 🗌
5. Sample(s) in proper con	tainer(s)?			Yes 🖌	No 🗌	
6. Sufficient sample volume	e for indicated te	est(s)?		Yes 🗹	No 🗌	
7. Are samples (except VO	A and ONG) pro	operly preserve	ed?	Yes 🗸	No 🗌	
8. Was preservative added	to bottles?			Yes 🗌	No 🗹	NA 🗌
9. Received at least 1 vial v	with headspace	<1/4" for AQ V	OA?	Yes 🖌	No 🗌	
10. Were any sample contai	iners received b	oroken?		Yes	No 🔽	
						# of preserved bottles checked
11. Does paperwork match to		A		Yes 🖌	No 🗌	for pH:
(Note discrepancies on c 12. Are matrices correctly ide	•			Yes 🖌	No 🗌	<pre> Adjusted? </pre> Adjusted?
13. Is it clear what analyses				Yes 🗹		
14. Were all holding times al				Yes 🗹	No 🗌	Checked by: JR 8/18/
(If no, notify customer for	r authorization.)					0.0010
Special Handling (if a	oplicable)					
15. Was client notified of all	discrepancies	with this order?	>	Yes	No 🗌	NA 🗹
Person Notified:	CONTRACTOR AND A CONTRACTOR OF		Date			
By Whom:		er en	Via:	eMail	Phone Fax	In Person
Regarding:				a a dileta de alto da docazione distributo di cana da		ner entensischen der Derensen wirden der der Bertricht.
Client Instructions	:			dia harite historia di antiso d	d/actic scholar bole of advances were set	HEEDISTICTURE IN HE FROM THE AND
16. Additional remarks:						
17. <u>Cooler Information</u>			P	and <u>a</u> 100 and an an an		
Cooler No Temp ° 1 0.4	C Condition Good	Seal Intact	Seal No	Seal Date	Signed By	
2 4.8	Good	Not Present Not Present				

Page 1 of 1

Receiv	ed by	OC	D: 4/.	26/2	024	8:2	7:41 A ì	<i>M</i> —					<u> </u>							3	Page	94.0	f 98
	YSTS I ARORATORY		Albuquerque, NM 87109	Fax 505-345-4107	Analysis Request	51	teil Peedeview کورتون	-P uuəs		-00 t 10 ³¹	ir, 1 AO)	CI, F, B 8270 (S 70tal Cc 72 F								-20	N54657	ay key: 2821200 Pulsink	a will be clearly notated on the analytical report.
	ANAL	id www	4901 Hawkins NE -	Tel. 505-345-3975			SIVIIS	0/7			_	в АЯЭЯ		-	 	 	 	 7		LV	NOW AFE	Sz:	cted data
2			awkin	5-345		-	0110					EDB (W				 -	 	_		N N	ONN	u K)-contrac
			01 H	el. 50						95.15	926542	∍q 1808								and the second sec	-	J.	Any sub
			49	Ē		_		_		_		08:H9T					 			Remarks: 0,5-0.1 - 0.4	1		sibility.
							208) 5	L NB'		BF	1022	X TEX /			 	 	 	 			T		this pos
			Jan 2				S	1	No		at Demark (°C)	108012	100							Date Time $S/n/z_i$ 1130	Ē	8/18/20 0700	ss. This serves as notice of
d Time:	d 🗆 Rush	:e:	R Sullivan		05A1226149	ager:	Summer	Dainto	Da Yes		D(including CF): S <	Preservative Type	Wanous							Via:	Via:	com 81	accredited laboratorie
Turn-Around Time:	Standard	Project Name:	Bruce	Project #:	OSAL	P		Samular.	On Ice:	# of Coolers:	Cooler Temp(including CF):	Container Type and #	1 Mirlous							Received by:	Received by:	5	contracted to other a
Chain-of-Custody Record	nt Enselan, LLC		Mailing Address: 606 S. R. O Chande Suite A	stac, NN STHIS	ne #:	email or Fax#: KSunnersaensolum.com	QA/QC Package:	n. □ Az Con		ype)_		Time Matrix Sample Name	141025 WW-1							V ₂₁ 1136 Relinquished by	Time: Relipquished by:	21 1753 Mouthull Rectan	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Releas	Client:	Ima	Mail	4	Phone #:	ema	O/YO 041:24	Accr				Date	1/1/8							Bate: B/17/21	Date:	Shope	

K iging



î.													_	
					20-		TABLE 2	#2 (7/20/24)	Droft					
				GROUNDWAT			ice R Sullivan		Draft ND CHEMICAL	PROPERTIES				
Sample I D	Sample Date											σ		>
Sample I.D.	Sample Date	Fluoride	Chloride	Sulfate	Nitrate + Nitrite	Bromide	Phosphorus	Calcium	Magnesium	Potassium	Sodium	Total Dissolved Solids	Conductivity	Total Alkalinity
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(µmhos/cm)	(mg/L Ca)
Control Co Human Heal and Domestic	Water Quality mmmission th Standards Water Supply dards	1.6	250	600	11	NE	NE	NE	NE	NE	NE	1,000	NE	NE
-			-	-		-	ed from the Ex		-	-	T	1	1	
EW-1*	8.11.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	T				-				nt (August 2021		r		1	
MW-1	8.17.21	0.79	62	4,000	<1.00	<0.50	<2.5	530	78	13	1,300	6,300	7,200	427.2
						-	d from the Tem		-					
	3.9.22	NA	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.13.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1R ^A	5.12.22	NA	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6.14.22	NA	31	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA
	8.5.22		22	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA
	4.5.22	NA	NA	1,900	NA	NA	NA	NA	NA	NA	NA	3,210	NA	NA
	3.9.22 4.13.22	NA	30	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA
	4.13.22 5.12.22	NA NA	NA 24	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
MW-2	6.14.22	NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8.5.22	NA	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.5.22	NA	20 NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3.9.22	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.13.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5.12.22	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	6.14.22	NA	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8.5.22	NA	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.5.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3.9.22	NA	8.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.13.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5.12.22	NA	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	6.14.22	NA	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8.5.22	NA	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.5.22	NA	NA	680	NA	NA	NA	NA	NA	NA	NA	1,210	NA	NA
	3.9.22	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.13.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5.12.22	NA	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	6.14.22	NA	42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8.5.22	NA	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4.5.22	NA	NA	4,400	NA	NA	NA	NA	NA	NA	NA	6,650	NA	NA

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Notes:

Concentrations in **bold** and yellow exceed the applicable WQCC HHS or DWSS

* = The sample collected from the excavation was only analyzed for benzene, toluene, ethlybenzene, and xylenes. A = During March 2022, temporary monitoring well MW-1R was completed to replace MW-1.

mg/L = milligram per liter

µmhos/cm = micromhos per centimeter Ca = Calcium

NA = Not Analyzed NE = Not Established

<1.0 = The numeral (in this case "1.0") identifies the laboratory reporting limit (RL) or practical quantitation limit (PQL).

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 337912

CONDIT	IONS
Operator:	OGRID:
Enterprise Field Services, LLC	241602
PO Box 4324	Action Number:
Houston, TX 77210	337912
	Action Type:
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	2D-1 Well Tie/Bruce R Sullivan #2, Incident ID No. NAPP2121054964 documents for Interim Characterization Report, Hydraulic Gradient and Potentiometric Surface Elevation, and lab analyses related to the incident have been accepted for the record.	4/26/2024