District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Volume/Weight Recovered (provide units)

### **Release Notification**

### **Responsible Party**

			- I						
Responsible	Party: <b>Ente</b>	rprise Field Ser	vices, LLC	OGRID: 2	41602				
Contact Nam	ne: <b>Thomas</b>	Long		Contact Te	elephone: 505-	599-2286			
Contact ema	Contact email:tjlong@eprod.com Incid				(assigned by OCE	nAPP2319233055			
Contact mail <b>87401</b>	ing address:	614 Reilly Ave,	Farmington, NM	М					
			Location	of Release So	ource				
Latitude <b>36.6</b>	55679		Longitude <u>-</u>	107.36470	(NAD	83 in decimal degrees to 5 decimal places)			
Site Name Sa	an Juan 28	-5 #14		Site Type N	latural Gas (	Gathering Pipeline			
Date Release	Discovered:	07/10/2023		Serial Num	Serial Number (if applicable): N/A				
Unit Letter	Section	Township	Range	Coun	ty				
N	16	28N	5W	San J	uan				
Surface Owne			Nature and	Volume of I	Release				
Crude Oil		Volume Release		calculations of specific	tions or specific justification for the volumes provided below)  Volume Recovered (bbls)				
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)				
		produced water			Yes N				
Condensa			d (bbls): Estimat			overed (bbls): <b>None</b>			
Natural G	ias	Volume Release	d (Mcf): 2.45 MC	F	Volume Recovered (Mcf): None				

Cause of On April 20, 2023, Enterprise had a release of natural gas and natural gas liquids from the San Juan 28-5 #14 pipeline. The pipeline was isolated, depressurized, locked and tagged out. No fire nor injuries occurred. No liquids were observed on the ground surface. Repairs and remediation began on July 10, 2023, at which time Enterprise determined the release reportable per NMOCD regulation, due to the volume of impacted subsurface soil. Repairs and remediation were completed on August 9, 2023. The final excavation dimensions measured approximately 20 feet long by 20 feet wide by 7.5 feet deep. A total of 292 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final" C-141.

Volume/Weight Released (provide units):

Other (describe)

Page 2 of 181

Incident ID	
District RP	
Facility ID	
Application ID	

### Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

A scaled site and sampling diagram as described in 19.15.29.11 NMA	C
Photographs of the remediated site prior to backfill or photos of the limust be notified 2 days prior to liner inspection)	iner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC Distric	t office must be notified 2 days prior to final sampling)
Description of remediation activities	
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain release may endanger public health or the environment. The acceptance of a C-141 should their operations have failed to adequately investigate and remediate human health or the environment. In addition, OCD acceptance of a C-141 compliance with any other federal, state, or local laws and/or regulations. Trestore, reclaim, and re-vegetate the impacted surface area to the conditions accordance with 19.15.29.13 NMAC including notification to the OCD who Printed Name: Thomas Long  Title: See	e notifications and perform corrective actions for releases which report by the OCD does not relieve the operator of liability contamination that pose a threat to groundwater, surface water, report does not relieve the operator of responsibility for the responsible party acknowledges they must substantially that existed prior to the release or their final land use in
Printed Name: Inomas Long 11tle: Se	nior Environmental Scientist
Signature:	Date: <u>09-20-2023</u>
email: tjlong@eprod.com Telephone	(505) 599-2286
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party of liabil remediate contamination that poses a threat to groundwater, surface water, he party of compliance with any other federal, state, or local laws and/or regular	uman health, or the environment nor does not relieve the responsible
Closure Approved by: Nelson Velez	Date: 01/19/2024
Printed Name: Nelson Velez	Title:Environmental Specialist – Adv
<del>_</del>	



### **CLOSURE REPORT**

Property:

San Juan 28-5 #14 (07/10/23) Unit Letter N, S16 T28N R5W Rio Arriba County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP231923355 & NAPP2320628649

**September 18, 2023** 

Ensolum Project No. 05A1226239

Prepared for:

**Enterprise Field Services, LLC** 

614 Reilly Avenue Farmington, NM 87401 Attn: Mr. Thomas Long

Prepared by:

Chad D'Aponti Project Scientist Kyle Summers

Senior Managing Geologist

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#### 1.0 INTRODUCTION

### 1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	San Juan 28-5 #14 (07/10/23) (Site)
NM EMNRD OCD Incident ID No.	NAPP2319233055 & NAPP2320628649
Location:	36.65679° North, 107.36471° West Unit Letter N, Section 16, Township 28 North, Range 5 West Rio Arriba County, New Mexico
Property:	Private
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On April 20, 2023, a release of natural gas from the San Juan 28-5 #14 pipeline was identified by a third party. Enterprise verified the release and subsequently isolated and locked the pipeline out of service. On July 10, 2023, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact. In addition, Enterprise determined the release was "reportable" due to the estimated volume of impacted soil. The NM EMNRD OCD was subsequently notified. On July 24, 2023, during the excavation of petroleum hydrocarbon-affected sandstone, a small flash fire occurred in the excavation. The fire was immediately extinguished by Site personnel with no injuries or property damage. Enterprise subsequently reported the fire incident to the NM EMNRD OCD.

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 New Mexico EMNRD OCD. Ensolum, LLC (Ensolum) referenced New Mexico 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, during the evaluation and remediation of the Site. The appropriate closure criteria for sites are determined using the siting requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. Ensolum utilized the general site characteristics and information available from NM state agency databases and federal agency geospatial databases to determine the appropriate closure criteria for the Site. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.

 The NM Office of the State Engineer (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 in the same Public Land Survey System (PLSS) section as the Site or in the adjacent sections (Figure A, Appendix B).



- Numerous cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database in the same PLSS section as the Site and in the adjacent PLSS sections. These CPWs are depicted on **Figure B** (**Appendix B**). Two of the closest CPWs are located less than 0.25 miles from the Site. Documentation for the cathodic protection well located near the San Juan 28-5 Unit #6 and #83 well locations indicates a depth to water between 85 feet and 94 feet below grade surface (bgs). This cathodic protection well is located approximately 0.20 miles northwest of the Site and is approximately 63 feet higher in elevation than the Site. Documentation for the cathodic protection well located near the San Juan 28-5 Unit #84E well location indicates a depth to water of approximately 70 feet bgs. This cathodic protection well is located approximately 0.24 miles east of the Site and is approximately 3 feet lower in elevation than the Site.
- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse (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 freshwater wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site, but the high water mark for a stock pond is located approximately 500 feet from the Site. (Figure E, Appendix B).
- No freshwater 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 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 within an area overlying a subsurface mine (**Figure G**, **Appendix B**).
- The Site is not located within an unstable area per Paragraph (6) of Subsection U of 19.15.2.7 NMAC.
- Based on information provided by the Federal Emergency Management Agency (FEMA)
   National Flood Hazard Layer (NFHL) geospatial database, the Site is within a 100-year
   floodplain (Figure H, Appendix B).

Based on available information Enterprise estimates the depth to water at the Site to be less than 50 feet bgs, resulting in a Tier I ranking. Applicable closure criteria for Tier I soils remaining in place at the Site include:



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

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

#### 3.0 SOIL REMEDIATION ACTIVITIES

On July 10, 2023, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, OFT Construction Inc, provided heavy equipment and labor support, while Ensolum provided environmental consulting support. Because two additional pipelines were present in the vicinity of the release, a significant amount of the impacted soil was removed by hydro-excavation.

The final excavation measured approximately 20 feet long and 20 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 7.5 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of silty sand and silty clay underlain by sandstone.

Approximately 292 cubic yards (yd³) of petroleum hydrocarbon-affected soil and 545 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance forms are provided in **Appendix C**. The excavation was backfilled with imported fill and then contoured to the surrounding topography.

**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 D**.

#### 4.0 SOIL 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 seven composite soil samples (S-1 through S-5, S-1a, and S-5a) from the excavation for laboratory analysis. The composite samples were comprised of five aliquots each. Hand tools or the excavator bucket were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

#### First Sampling Event

On July 17, 2023, sampling 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 sample S-1 (7') was collected from the floor of the excavation. Composite soil samples S-2 (0' to 7'), S-3 (0' to 7'), S-4 (0' to 7'), and S-5 (0' to 7') were collected from the walls of the excavation.



<sup>&</sup>lt;sup>2</sup> – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).

<sup>&</sup>lt;sup>3</sup> – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

Subsequent soil analytical results identified total BTEX and TPH concentrations that exceeded the NM EMNRD OCD closure criteria for composite soil samples S-1 and S-5.

### **Second Sampling Event**

In response to the exceedances of composite samples S-1 and S-5 during the first sampling event, the impacted soils were removed by excavation and transported to the landfarm for disposal/remediation. On July 28, 2023, sampling 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 sample S-1a (7.5') was collected from the floor of the excavation.

### **Third Sampling Event**

On August 9, 2023, a third 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 sample S-5a (0' to 7.5') was collected from a wall of the excavation.

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 SOIL 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 laboratory analytical results are summarized in **Table 1** (**Appendix F**). The laboratory data sheets and executed chain-of-custody forms are provided in **Appendix G**.

### 6.0 SOIL DATA EVALUATION

Ensolum compared the benzene, BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1a, S-2 through S-4, and S-5a) to the applicable NM EMNRD OCD closure criteria. The soils associated with composite soil samples S-1 and S-5 were removed from the Site, and therefore, are not included in the following discussion. The laboratory analytical results are summarized in **Table 1** (**Appendix F**).

- The laboratory analytical results for all composite soil samples associated with soil remaining at the Site indicate 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 all composite soil samples associated with soil remaining at the Site indicate 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 results for all composite soil samples associated with soil remaining at the Site indicate combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.



 The laboratory analytical result for composite soil sample S-4 indicates a chloride concentration of 94 mg/kg, which is less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg. The laboratory analytical results for all other composite soil samples associated with soil remaining at the Site indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg.

#### 7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with imported fill and then contoured to the surrounding topography.

#### 8.0 FINDINGS AND RECOMMENDATION

- Seven composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or total combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.
- Approximately 292 yd<sup>3</sup> of petroleum hydrocarbon-affected soil and 545 bbls of hydroexcavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and then contoured to the surrounding topography.
- The flash fire that occurred during the sandstone excavation was extiguised by Site personnel without further incident.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

### 9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

### 9.1 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).

#### 9.2 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.



Closure Report Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23)

Page 6

#### 9.3 Reliance

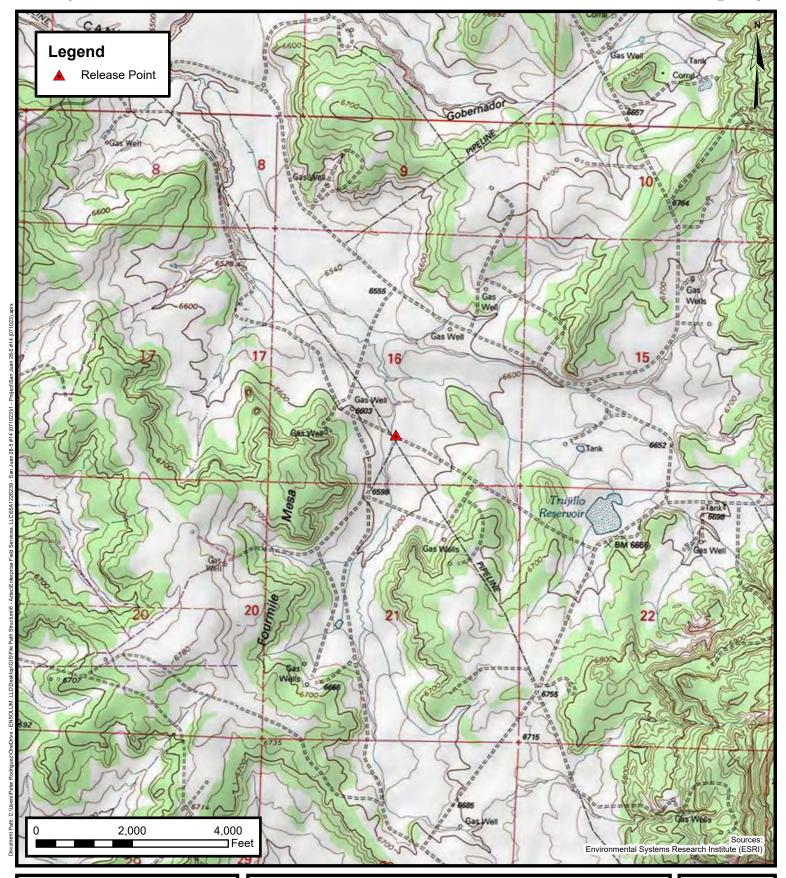
This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution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





### **Topographic Map**

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE

1





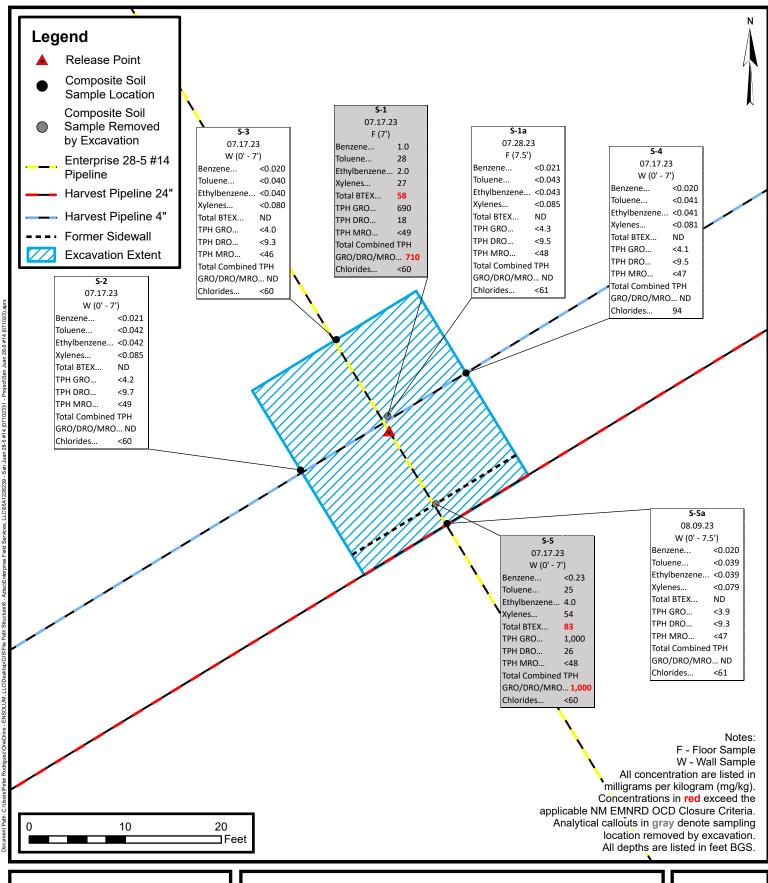
### **Site Vicinity Map**

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE 2

Released to Imaging: 1/19/2024 7:30:45 AM





### Site Map with Soil Analytical Results

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

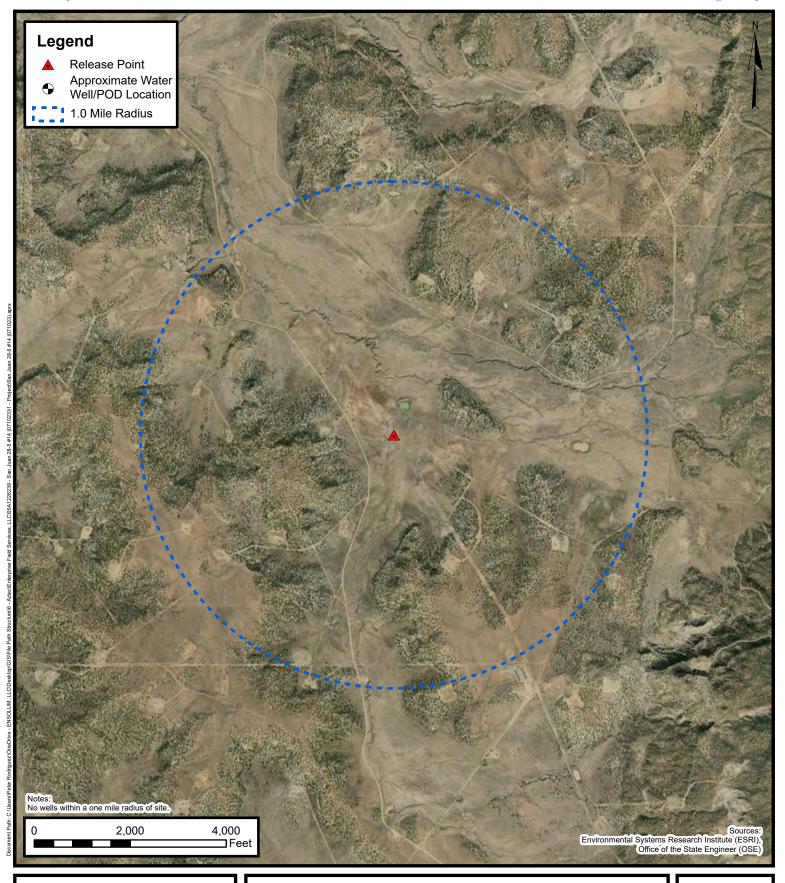
FIGURE 2

Released to Imaging: 1/19/2024 7:30:45 AM



### **APPENDIX B**

Siting Figures and Documentation





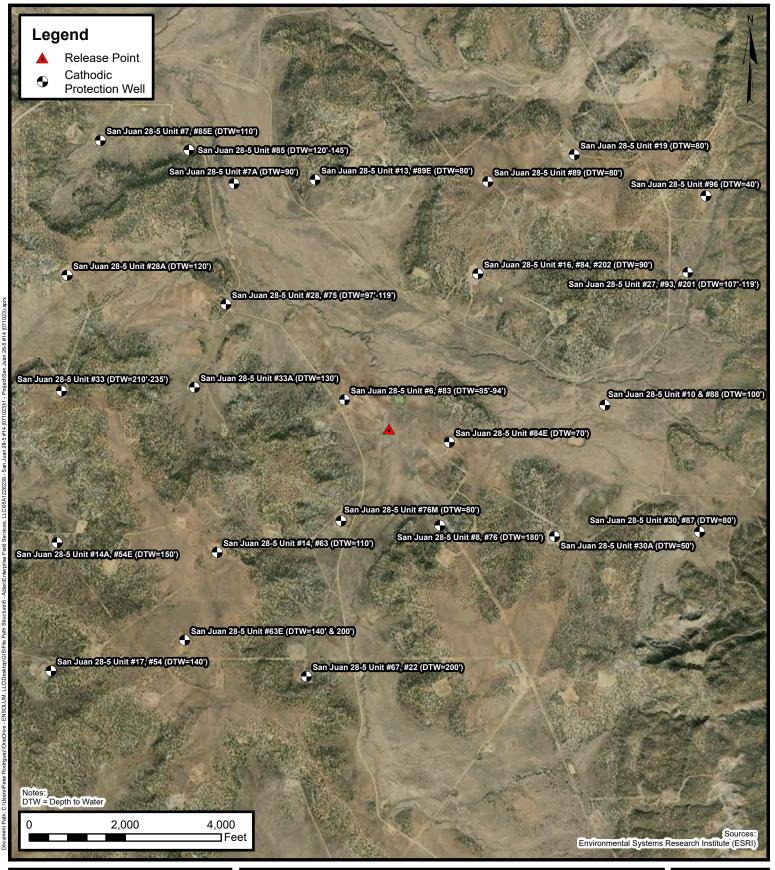
### 1.0 Mile Radius Water Well/POD Location Map

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE

Α





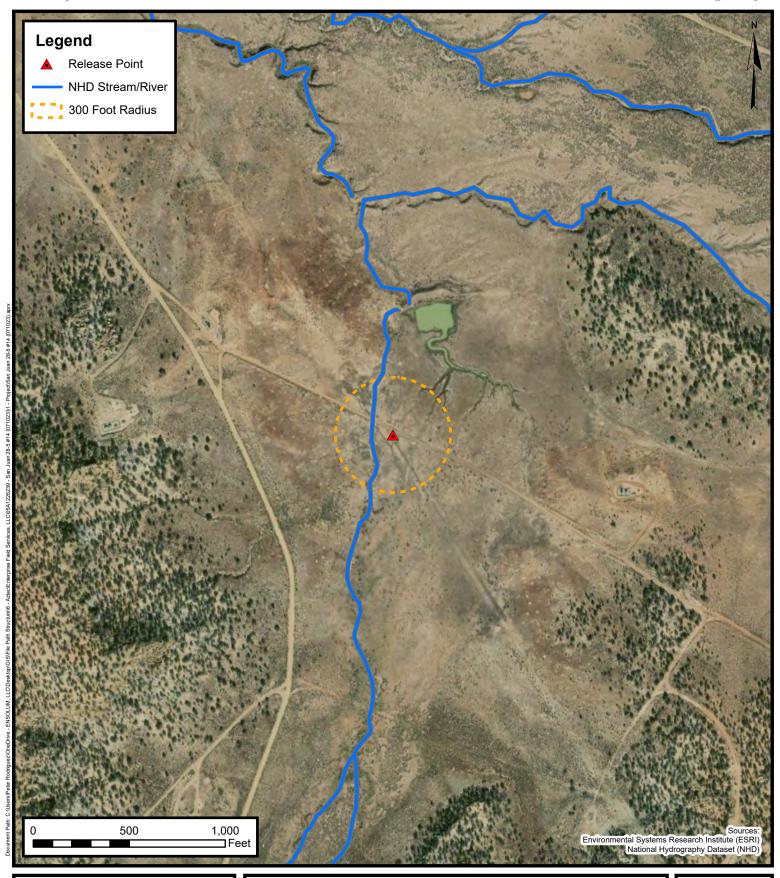
# Cathodic Protection Well Recorded Depth to Water

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE

В



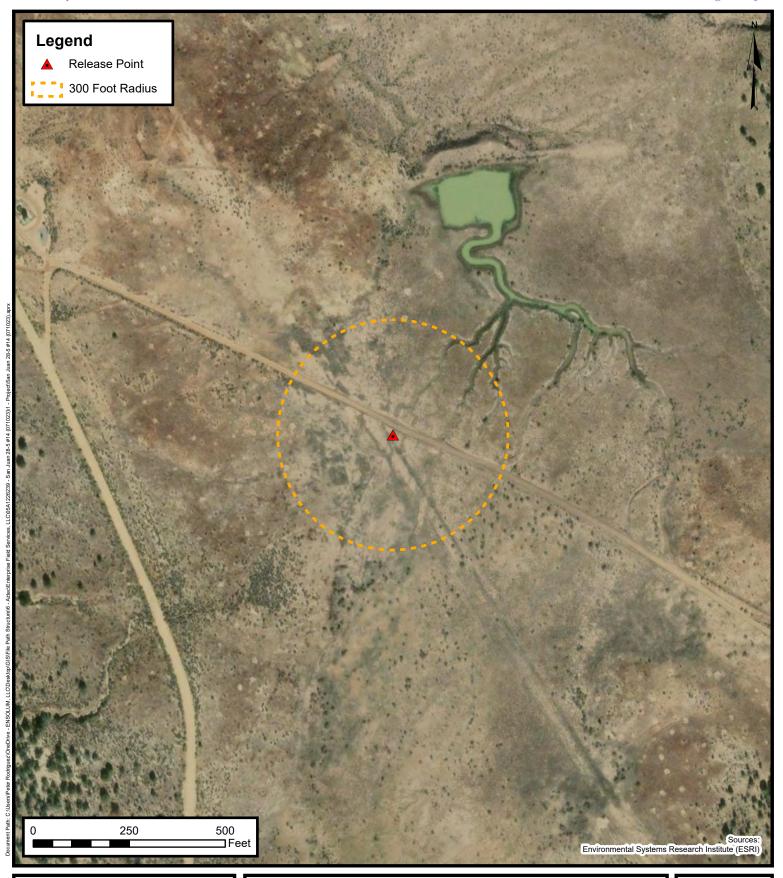


# 300 Foot Radius Watercourse and Drainage Identification

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE





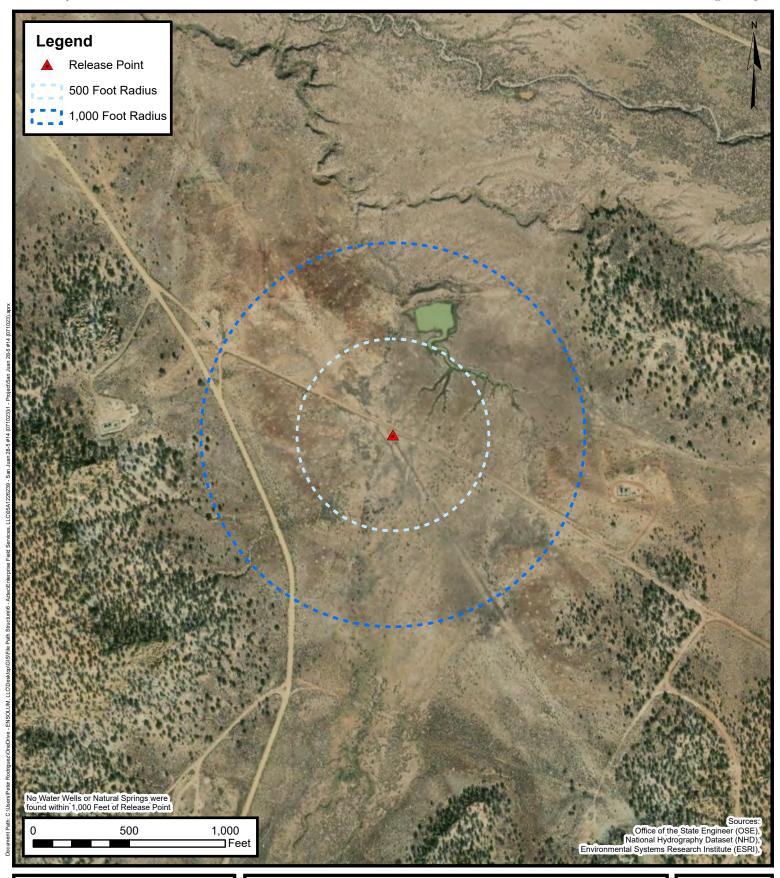
# 300 Foot Radius Occupied Structure Identification

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE

D



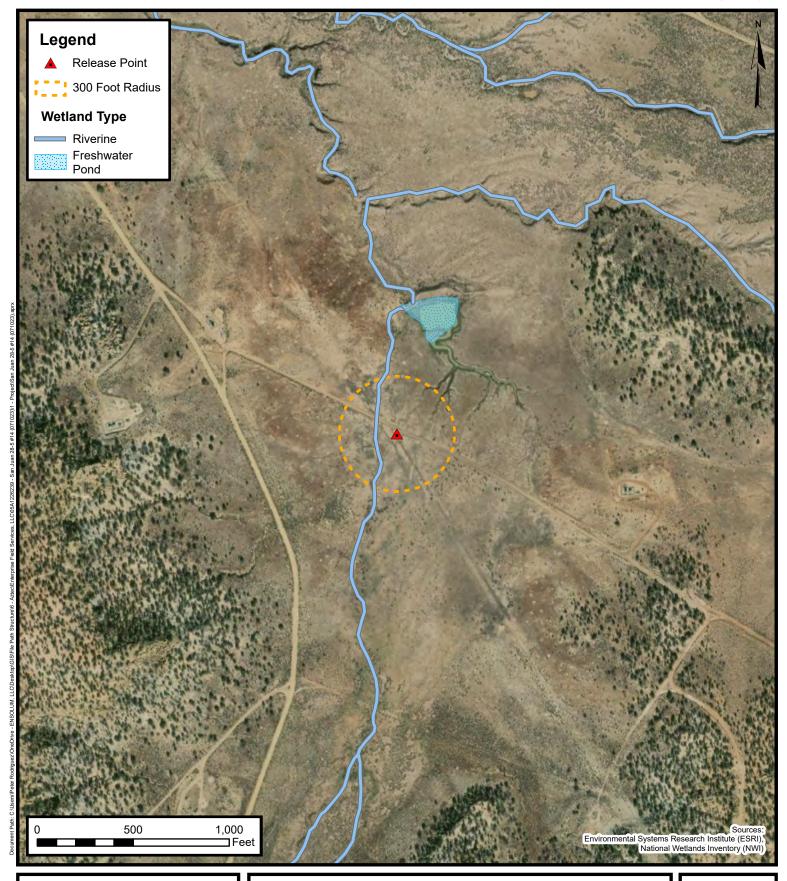


### Water Well and Natural Spring Location

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE





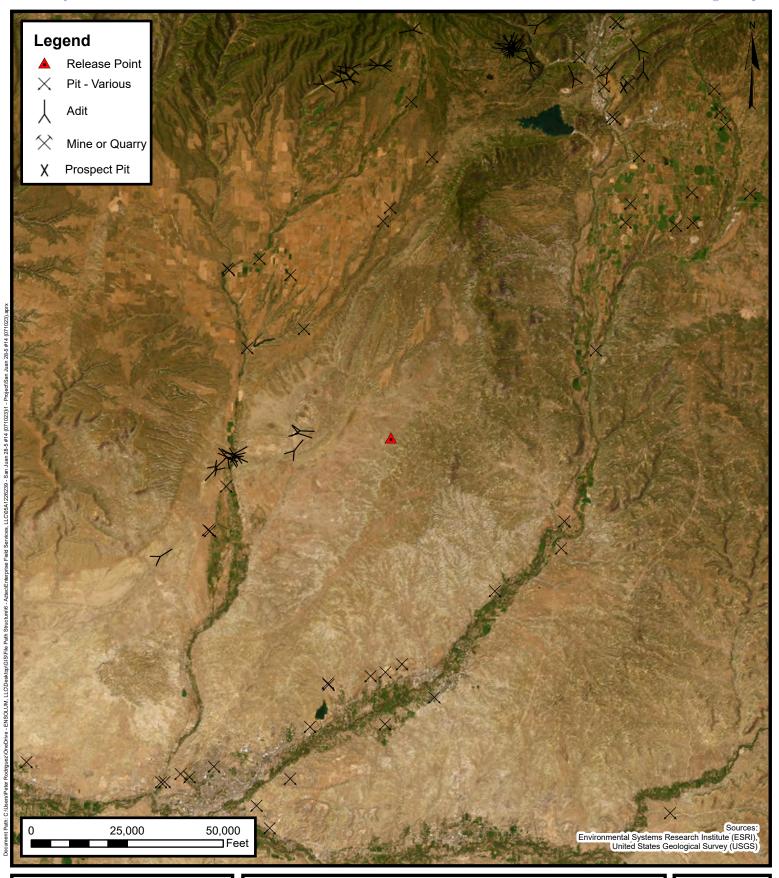
### Wetlands

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

**FIGURE** 

F





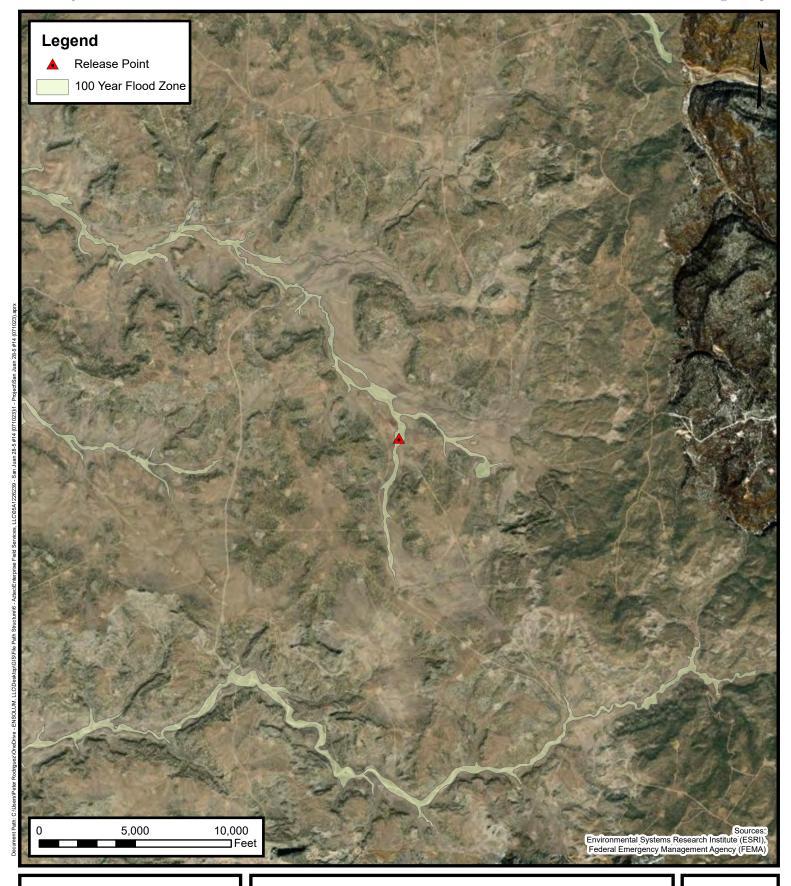
### Mines, Mills, and Quarries

Enterprise Field Services, LLC J.E. Decker #2 (07/20/23) Project Number: 05A1226252

Unit Letter K, S12 T32N R12W, San Juan County, New Mexico 36.99671, -108.049583

FIGURE

Released to Imaging: 1/19/2024 7:30:45 AM





### 100-Year Flood Plain Map

Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Project Number: 05A1226239

Unit Letter N, S16 T28N R5W, Rio Arriba County, New Mexico 36.65679, -107.36471

FIGURE

Н



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

No records found.

**PLSS Search:** 

**Section(s):** 16, 8, 9, 10, 15, **Township:** 28N **Range:** 05W

17, 20, 21, 22

Received by OCD: 9/20/2013 12:25:173M - 039 - 07416 920 #83 30 - 039 - 20242

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Location: Unit  $^{
m SW}$  Sec. $^{
m 16}$  Twp  $^{
m 28}$  Rng  $^{
m 5}$ Operator MERIDIAN OIL Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #6, #83 cps 1118w Elevation6641' Completion Date 9/12/77 Total Depth 400' Land Type\* N/A Casing, Sizes, Types & Depths N/A If Casing is cemented, show amounts & types used N/A If Cement or Bentonite Plugs have been placed, show depths & amounts used Depths & thickness of water zones with description of water when possible: Fresh, Clear, Salty, Sulphur, Etc. 85' - 94', 110' - 118', 180' Depths gas encountered: N/A Type & amount of coke breeze used: 43 SACKS N', 200' Depths anodes placed: 360', 350', 340', 330', 285', 275', 265' Depths vent pipes placed: 365' OF 1" PVC VENT\_PIRE ( Vent pipe perforations: 240' Remarks: \_\_gb #1

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.

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

## WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Hereto).

Form 7-238 (Rev. 11-71)

Completion Date <u>9-12-77</u> \*

Well Name	TUAN 28-	5 NWi+ 6		SW 16 - 28	7-5			18W	
Type & Siz	e Bit Used 6	3/4					Work Orde	<sup>r No</sup> <b>46</b> : 52 <b>4</b> 83 : 54	521.19 702.19
4	Depth 400	Total Drilling R	ıg Tıme '	Total Lbs. Coke Us  43	sed Lost Circ	culation Mat'i Us			
Anode Dep	h	# 3 <b>340</b>	# 4 <b>330</b>	# 5 <b>285</b>	# 6 <b>275</b>	# 7 <b>265</b>	# 8 <b>220</b>	≈ 9 <b>2/0</b> .	# 10 200
Anode Outr # 1 <b>3. 0</b>	1	# 3 <b>3.5</b>	# 4 3.4		#6 4.1		* 8 <b>4.2</b>	# 9 <b>5.</b> /	# 10 4.6
Anode Dep # 11	# 12	# 13	<b>#</b> 14	; <del>≉</del> 15	# 16	# 17	# 18	# 19	# 20
Anode Outr	ut (Amps) # 12	# 13	; ; 14	# 15	# 16	# 17	‡ 18	! !# 19	# 20
Total Circu	nit Resistance	mps 16.4	Ohms	0.68	No. 8 C.P. Cal	ole Used		No. 2 C.P. C	able Used

Remarks: StAtic \*6 600'SW=0.73, StAtic #83 600'SE - 0.81. DRillen SAI'D MAKING WATER BETWEEN 85' \$ 94'. MAKING MORE WATER BETWEEN 110'\$ 118 DRilled to 120. Next AM WATER STANDING @190: STARTED INJ. @ 120. PERSERATE 240 of 1" Puc vent Pipe. Installed 365' of 1" Puc vent Pipe. Sluppyed 43 SACKS OF COKE. #83 MARKED I NOTCH #6 MARKED 3 NOTCHES INSTAlled GOV 30A RectifiER. MAKING MARC WATER @ 180

All Construction Completed GROUND BED LAPOUT SKETCH 458 4" Flow Line

DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion-Office

Originator File

P	Page 27 of 181
Sheet:	of
Date:	
By:	
File:	77. 3

٠.						24
- ** ± <sub>0</sub> }	SAN JUAN S	28-5" NN, 4 # 6	6, 41/ 60/ -		52521.19	
	SAN JUAN ;	28-5 NN; + # 83	SW16-28-5	1118W	54702.19	
MW gais/moi 16.04 C <sub>1</sub> 6.4	Static #83	600' SW = 0.73 600' SE = 0.81		Between 85 Between 110's Next AM M	MAKINS WAYER.  1941 MORE WAYER  186. DRIVED to 1851  LER STANDING B 96"	
30.07 C <sub>2</sub> 10.12					e water 3 180	,
44.10 C3 10.42 58.12 iC4 12.38 58.12 nC4 11.93 72.15 iC5 13.85 72.15 nC5 13.71 86.18 iC6 15.50 86.18 C6 15.50				Inctalled 3	240 051"PUCVENT 65" 051"PUCVENT 13 SAUKES 0500	191,00
100.21 IC7 17 2 100.21 C7 17 46 114.23 C8 19 39 28.05 C2 9.64	1_20	99/1/4			Characteristics of west year. According to the first territory of the control of	
42.08 C3 <sup>2</sup> 9.67	3.)	The same of the sa				
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Form 22-2 (Rev. 1-61)

### EL PASO NATURAL GAS COMPANY

### DAILY DRILLING REPORT

				WELL 115	1110	. 7		<u>. ().</u>		). AA	· ^	516									<del></del>
LEASE WELL NO. 1/8 W CON					TRACTOR	row	W F	للبلا	ma vo	RIGNO	). 	REPORT NO. DATE 9 - 1/- 79 19					19				
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Received by OCD: 9/20/2023 17/25/17PM 30-039-07439 # 84 30-039-20360 # 202 30-039-24517

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator_	MERIDIAN OIL	Locatio	on: Unit NE Sec 16	Twp 28 Rng 5
Name of We	ell/Wells or Pipeline	ServicedS	SAN JUAN 28-5 UNIT	#16, #84, #202
			cp	os 1119w
Elevation <u>6</u>	582' Completion Date_	9/28/77 Total	Depth 320' Lan	nd Type* N/A
Casing, Si	zes, Types & Depths_	1	1/A	
If Casing	is cemented, show am	ounts & types	usedN/A	
	or Bentonite Plugs h	ave been place	ed, show depths	& amounts used
	chickness of water zo		•	when possible:
Depths gas	encountered:	N/A		
Type & amo	ount of coke breeze u	sed:	40 SACKS	
	des placed: 275', 260',			
Depths ven	t pipes placed:	280' OF 1" PVC V	ENT PIPE ECE	A & M
	perforations:		181	<b>4 1991</b>
Remarks:	gb #1.		ON CO	ON' B
			On ' D	ist. 3

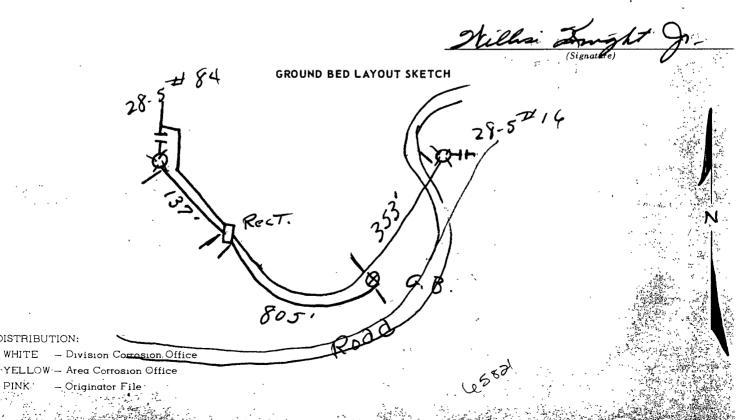
If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

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

#### WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Completion Date 9-28-7 Drilling Log (Attach Hereto). Well Name CPS No. NE16-28-5 1119 W. JOHN JUZN Work Order No. 53264.19-50-20 Type & Size Bit Used 184- 54811.19-50-20 Anode Hole Depth 320 Total Drilling Rig Time Lost Circulation Mat'l Used 1099ed 309 40 Sacks Anode Depth <u>| 260</u> | # 3 225 | # 4 215 | # 5 205 | # 6 185 | # 7 175 | # 8 150 | # 9 135 | # 10 125 #1 **275** Anode Output (Amps) # 3 **2.** 9 # 4 3.6 # 5 3.8 # 6 4.4 #-7- **3. 2** lz 8 3.1 # 9 4.1 # 10 3.3 Anode Depth !# 17 # 15 # 16 Anode Output (Amps) # 12 # 13 # 15 No. 8 C.P. Cable Used .87 14.2 Ohms Amps 28.5 84 600'NE = 75 600 NW= 74 Said WaTER aT INSTAlled 280' of 1" VENT Pipe, PERFORATED 200' OF VENT Pipe 10 GRAPHITE ANODES Slurryed 40 Sacks COKe 60 V 30 A Rect 1 NOTCh = 28.5#84 vorches = 28-5 STUB Pole

All Construction Completed



DISTRIBUTION:

PINK.

Page 31 of 181

OF COKE

Water BAT 90'

SAN JUAN 28.5# 8U W/0 184-54811.19-50-20

NE16 28 5 CPS-1119 W

MW	ga	ls/mol
16.04	C1	6.4
30.07	C <sub>2</sub>	10 12
44.10	Сз	10.42
58.12	iC4	12.38
58.12	nC4	11 93
72.15	iC5	13.85
72.15	nC5	13.71
86.18	iC6	15.50
86.18	C <sub>6</sub>	15.57
100.21	iC7	17.2
100.21	C7	17.46
114.23	C <sub>8</sub>	19.39
28.05	C2 <sup>:</sup>	9.64
42 08	C3 <sup>2</sup>	9 67

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44.01	CO <sub>2</sub>	6 38
64 06	SO <sub>2</sub>	5 50
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### DAILY DRILLING REPORT

LEASE			WELL NO.	1119 4	V CON	TRACTOR	Tosey i	201	ling Go.	RIG NO.		REP	ORT NO		DATE SEPT	<u> 28</u>	197
		МО	RNING					DA'	(LIGH)T						EVENING	· · · · · ·	
Oriller			Total Men In	Crew	,	Driller $\mathcal{B}_{0}$	b Pos	sey	Total Men I	r. Crew		Driller			Total Men In C	rew	
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30-039-23836

### DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator_	MERIDIAN OIL	Location: Unit 0 Sec. 16 Twp28 Rng 5
Name of We	ell/Wells or Pipel	line Serviced SAN JUAN 28-5 UNIT #84E
		cps 1889w
Elevation <u>6</u>	5575' Completion Da	ate 6/22/87 Total Depth 400' Land Type* N/A
Casing, Si	zes, Types & Dept	thsN/A
If Casing	is cemented, show	w amounts & types usedN/A
	or Bentonite Plug	gs have been placed, show depths & amounts used
_		ur, Etc. 70' SAMPLE THE FORM FOR SAMPLE THE
	encountered:	N/A OIL CONSOLV.
Depths ano		360', 350', 340',325', 315', 305', 295', 270', 260', 250',
Vent pipe	perforations:	32 <b>0'</b>
		E DID NOT GET COKE AROUND THEM. #11 & #12 INSTALLED.

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.

Released to Emagange (1972)26-74-0245-429

Drilling Ling (Atlanta Horato) (2)		ONICONSTRUCTION RES	Completion: Date:	
### ##################################	9 7906C			
Ancie Objetit Ampelia  p1 2: 11   272 3: 9   2.3  Ancie Ospiti  p1 1 2 £ 0   9 12 // 75   2.1  Ancie Outer (Ampelia)  p1 1 3: 9   9 12 € 3   2.1	n de la companya de l	4 - 10 1 3 0 1 5 3 3 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	6 20 3   1   2 2 3 3 2 2   C.E.	
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	4-Leb 11 4 12		Augder Com	
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20: Heter Pole: 10: Stub Pole: Junction Box:	#+0.00 # 5069 24 T-AX 253.46			<u> </u>
	AL: \$322.7		2	

### HIRGRESONKOCION CYCE EMCERCIE

P.O. BOX (25%, PHONE 3246)46 AXAEC, NEW MEXICO 97210 DEEP WELL GROUNDSED LOG

### **BURGE CORROSION SYSTEMS, INC.**

P.O. BOX 1359 - PHONE 334-6141 AZTEC, NEW MEXICO 87410

CPS 1889 W

MPANY Merid	lian Oil	DAIL	Y DRILLING REPO	RT Julie 22	.1 <b>9</b>
WELL NAME:		WELL NUMBER:	SECTION:	TOWNSHIP:	RANGE:
San Juan 28	3–5	#84E	16	28	5
	WATER AT:	FEET:	HOLE MADE:		
	70¹·		400' TD	384	
		DESCRIPTION OF			
FROM	ТО		FORMATION I	S	COLOR
0	60	shale/clay			
60	70	sand-water			
70	140	shale			
140	160	sand			
160	260	shale			
260	300	sanle/sand			
300	400	shale stream	mers-sand		
			70.00		
				4-70-1-1-1	
		-			
	1				
				497	
	<u> </u>				
REMARKS:					
Briand	. Burya	Driller			Tool Dresser
	- July	Dringt			

Sample had a considerable amount d'a difficulté filtarible suspended clay.

	•								
REMARKS & RECOM	Iron, Fe (total) Sulfide, as H <sub>1</sub> S	Total Dissolved Solids (	ANIONS Chloride, Cl Sulfate, SO <sub>4</sub> Carbonate, CO <sub>3</sub> Bicarbonate, HCO <sub>3</sub>	Barium, Ba	DISSOLVED SOLIDS CATIONS Sodium, Na (calc.) Calcium, Ca	Type of Water (Produced, Supply, etc.)	Lease or Unit	Eveld Merchan	ess (1884W)
RECOMMENDATIONS:	00	(calc.) 610	27.7 47.300		mg/l	uced, Supply, etc.)	Well 28-5	ou C	ABW
• · · · · · · · · · · · · · · · · · · ·					me)1	Sampling Point	1/響:	D. Legal Description	API WATER ANALYSIS REPORT FORM
10000	P	C 2 7	C. No. 20	WA	pH Specific Gr Resistivity	G. B.	Depth 70		SREPORT
104			5	TER PAT	pH Specific Gravity 60/60 F. 14 Resistivity (dim-meters) 14	G.B.	Formulion Danotz	Sample No.	T FORM
10	<b>F \$</b>		0	TERNS — me/l		Zampi	Water, B/D	Parish States	
1000	Co.	Trillin 1003			8.85 1.3×10	Evans	D/D		19 1 F 20
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Received by OCD: 9/20/2023 12:25:17 PM 30-059-07-(65

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#-8S E -30-039-23834

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit SW Sec. 8 Twp28 Rng 5
Name of Well/Wells or Pipeline Servi	.ced SAN JUAN 28-5 UNIT #7, #85E
	cps 1107w_
Elevation6549' Completion Date 9/7/77	Total Depth 320' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	& types used N/A
If Cement or Bentonite Plugs have be	een placed, show depths & amounts used
Depths & thickness of water zones wi	th description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc	110'
Depths gas encountered: N/A	
Type & amount of coke breeze used:	57 SACKS
Depths anodes placed: 265', 255', 245',	235', 225', 215', 160', 150', 140', 130'
Depths vent pipes placed: 280' OF	1" PVC VENT PIPE
Vent pipe perforations: 200'	RESERVE U
Remarks: gb #1	MAY 31 1991
	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.

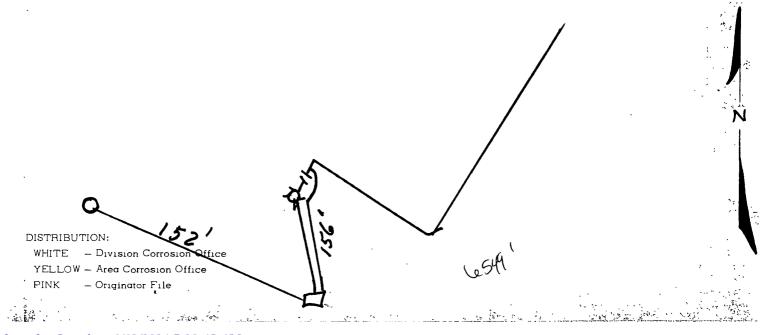
Form 7-238 (Rev. 11-71)

## WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

SAN JU	IAN 28-		7 5	w 8-28-	5		CPS No.	7 W	
Ype & Size	Bit Used 6	3/4"						577.19	7
		Total Drilling Ri	g Time To	tal Lbs. Coke U	sed Lost Cir	culation Mat'l U			
	# 2 255	# 3 <b>245</b>	# 4 <b>235</b>	# 5225	# 6215	# 7 <b>160</b>	# 8 150	#9 140	# 10 <b>/ 3 C</b>
	# 2 <b>3.2</b>	# 3 <b>2.</b> 9	# 4 <b>2.9</b>	# 5 <b>2.8</b>	# 6 3.6	#-7- <b>3.8</b>	# 8 4.6	# 9 3.5	# 10 <b>3.</b> 2
Inode Depth	# 12	# 13	# 14	# 15	# 16	<b>⇒</b> 17	# 18	# 19	# 20
node Output	(Amps)	# 13	:    # 14	  # 15	  # 16	# 17	# 18	  # 19	# 20
Total Circuit Volts //.	Resistance Am	ps /#	Ohms 💋		No. 8 C.P. Ca			No. 2 C.P. Co	ble Used
	tatic 6						water led 280 'e		s vent
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GROUND BED LAYOUT SKETCH

2.2. Louis



- /	Page 40 of 181
Sheet:	O 7 128 - 5 491
Date:	200 TO 100 TO 10
By:	Mr. Care
File:	

· · · · · · · · · · · · · · · · · · ·	SAN JUAN	28-5	Unit	#7	Sw.	9-28-5		1107W		52577	1.19	* · D
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	40 V 16 A RC	1.					- 5	urilled to 12 reaserate	20 N	ex+4m	Blew &	water
MW gals/mol	Stub Pole	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						two talled				
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72,15 nC5 13.71 86.18 iC6 15.50	, !						- ·	1 :		***		+ + -
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100.21 C <sub>7</sub> 17.46 114.23 C <sub>8</sub> 19.39	120.5	·i	80	3		!				1		
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4 08 H <sub>2</sub> S 5.17	10 -8				- Section 2			D 235	1.7	1	2.9	. 11
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SIGNED: Toolpusher

Form 22-2 (Rev. 1-61)

# EL PASO NATURAL GAS COMPANY DRILLING DEP ARTMENT

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	13 المحادثة	ing Water		rd Wet (m	andstone	oille (NOT &	Sims are	TIME BREAKDOWN			MUD, ADDITIVES USED AND	TOTAL DEPTH	DOWN ON KELLY	SINGLES	STANDS	NO. DCSIZE	NO. DCSIZE			FORMATION	Total Man in Crew	MORNING	WELL NO. 1	
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											ND RECEIVED					LENG.	LENG.			WT-BIT R.P			J7 19	ן יכ ג

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30-039-20358

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

cation: UnitSE Sec. 8 Twp 28 Rng 5
SAN JUAN 28-5 UNIT #85
cps 1106w
otal Depth 470' Land Type* N/A
N/A
ypes used N/A
placed, show depths & amounts used
description of water when possible:
120'-145', 175'-190'
50 SACKS
, 270', 260', 250', 240', 230', 220'
PVC VIDERELVE
MAY 3 1 1991
OIL CON. DIV.
DIST. 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.

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

# Received by OCD: 9/20/2023 127-25

# CAT DIC PROTECTION CONSTRUCTION REPORT

NOTECTION CONSTR	UCTION REPORT
DAILY LOG.	OCTION REPORT
Drilling Log (Attach Hereto).	
Log (Attach Hereto)	The state of the s
Well No	The state of the s
The state of the s	
SAN JUAN 28-5 UNIT # Location	Completion Date 10-12-77
Type & Size Bit Used  Location  S. F. V. 28-5	Date 1637
1 ype & Size Bit Used 6 3/11 85 SE 8-28-5	CPS No.
6 14	
Anode Hole Depth 470	1106W
Logs of H51 Total Drilling Rig Time Total Miss	Work Order No.
Anodolo	54012 10
	irculation Matri Used No. Sacks No. 19
	No. Sacks Mud Used
(Amps)	The same of the sa
Anode Output (Amps) #3350 #4340 #5270 #6260	The state of the s
Anode Device	#7250 #8240 #9220
	149/00
# 11 /50 # 12 /35 # 13 # 14	#7-2-9
June Output (Amps) # 14	3.0 #93.1 #10 2
# 11 5.5 # 12 7 4 # 15 # 16	# 17
# 11 <b>5.5</b> # 12 <b>3.4</b> # 13 # 14	# 18
11 17 14 15	# 19
Among III	# 17
Ohms 82	Op# 18
Remarks: Static 600 W = 0.67 Installed Platinum An	THE TINUM! 1 20
5/ATIC 600 W 2 2 1	AMPS /
Barles 1 -0.67 Full 1	OHM C 102
HORSE KORESCO COM	O Diap
Andes Leresco Coke Around Platinum An Provent Pipe to stalled 425' of "Provent Pipe Of Coke, Note: Platinum Anodes taped to vent Anodes Connected + 10 to 1	DURKONS 2 PLAN
TVC VEST PO	ATINUM
Tastalled 11201	odos. Produced 1
14 MAYOU OF PURCHER	JUNATED 220 ns. 1)
Li Coke, Note Phili	00 51
MININUM ANDRES IN	WARRIED 50 CA
ANOJES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	370
Of Coke. Note: Platinum Anodes taped to vent Pig Anodes Connected In Tunction Box. Durinon And 60 V 30 A Rectifier & Stub Pole	Pe Nate
GOVI 3 ROX DISTANCE	ONLY Platie
SO A RECE TION OF THE PURINON AND	udes + 1
Stub Pala	moide tweeting
TOPE .	AND BOX BAX
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# EL PASO NATURAL GAS COMPANY DRILLING DEPARTMENT

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Form 22-2 (Rev. 1-61)		Ē	EL PASO NATURAL GAS COMPANY  DRILLING DEPARTMENT			
1 7 1		<b>)</b>			DAILY DRILLING REPORT	
LEASE	WELL NO. //06 CON	CONTRACTOR (	Co. RIG NO.	REPORT NO	DATE > 15	1977
競売・MO	MORNING		DAYLIGHT		EVENING	
Driller.	Total Man In Crew	Driller (1) b. e.t.	Total Men In Crew	Driller	Total Men In Crew	
FROM TO	FORMATION WT-BIT R.P.M.	FROM TO	ØRM.	FROM	TO FORMATION	T-BIT R.P.M.
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				-		
である。	NO. DCSIZELENG.		NO. DC SIZE LENG.			
BIT, NO.		BIT NO.	SI ZE	BIT NO.		- r z
SERIAL NO.	STANDS	SERIAL NO.	STANDS	SERIAL NO.	2	רחמכי
SIZE	SINGLES	SIZE T	SINGLES	SIZE	SINGLES	
TYPE	DOWN ON KELLY	TYPE ,	DOWN ON KELLY	TYPE	DOWN ON KELLY	
MAXE	TOTAL DEPTH	MAKE 1	TOTAL DEPTH	MAKE	TOTAL DEPTH	
MUD RECORD	MUD, ADDITIVES USED AND RECEIVED	MUD RECORD	MUD, ADDITIVES USED AND RECEIVED	MUD RECORD	MUD, ADDITIVES USED AND	RECEIVED
Time Wt. Vis.		Time Wi. V	Vis.	Time Wt.		
35	,					-
FROM TO .	TIME BREAKDOWN	FROM TO	TIME BREAKDOWN	FROM TO	TIME BREAKDOWN	
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3 15 2	ole .	190 250	Shale	380 415	Qid oskali	
15 50 Se	and Stone	250 270	Sandy shalo	58H SIH	Sandatana	
50 130 Sp	hale	270 305	Shale &	12th 8th	2000	
20 145 50	a with-mw	305 335	Sandy Shall	3777 18h	Sandy Shall	
45 175 S	hale	335 355	Shalk	440 470	36018	
MEMARKS		REMARKS -		REMARKS -		
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SIGNED: Toolpusher \_

Company Supervisor

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1164 #7A

30-039-23845

Page 46 of 181

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit P Sec. 8 Twp28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #7A
cps 1881w
Elevation6507' Completion Date 7/28/87 Total Depth 280' Land Type* N/A
Casing, Sizes, Types & Depths 80' OF 7" PVC CASING
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used  N/A
Depths & thickness of water zones with description of water when possible:  Fresh, Clear, Salty, Sulphur, Etc. 90'
Depths gas encountered: N/A
Type & amount of coke breeze used: N/A
Depths anodes placed: 230', 220', 210', 200', 175', 160', 150', 140', 135', 125'
Depths vent pipes placed: 245'
Vent pipe perforations: 165'
Remarks: gb #1 \ MAY 3 1/1991
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.

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

FM-07-0238 (Rev. 19-82)

## WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Good comps, 57

Completed-

C					ILY LOG			, a para de la composición de la compo La composición de la composición de la La composición de la	many of the same section of the same of
Drilling Log (A	ttach Hereto)			M. 41	1. 95-5	56001 C	omplețion D	)ate 7/28	1/87
CPS #	Well Name	e, Line or Plant			Order #	Static		Ins. Union Check	
1881-	W SAN	JUAN	28-5 #	7-A		•	82 N	∑ Good	Bad St
Location		Anode Size " 2 × 6	O Anode Typ	». )ur 1+0.	n	Size Bit	3/4"		مهر در مهر در این در در این در
Depth Drilled 280	Depth I	245 '	Drilling Rig Time		otal Lbs Goke Used	Lost Circulatio	n Mat'l Used	No Sacks Mud I	Used -
# 1 230		# 3 210	# 4 200	# 5 /75	#6 160	# 7 150	= 8 140	# 9 135	# 10/25
	(Amps)  # 2 3.2	# 3 4.4	# 4 4.8	# 5 2.3	# 6 3.3	# 7 4.9	= 8 3.9	#93.1	# 10 3.6
Anode Depth # 11 Anode Output	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
# 11 Total Circuit	# 12	# 13	# 14	# 15	# 16 No. 8 C.P. Co	# 17	# 18	# 19 No. 2 C.P. C	# 20
1	7./2. Amp	ps 16.5	Ohms ,	734	140. 8 C.P. CC	ible Osed		140. 2 C.F. C	
Remarks:	7/27/8	7 D	rilled	To 3	00'	RAN "	1 ANOB	e wa	outed mo
	go pas	T 50'		Redrill	ed 1/2	8/87	To 28	o' s	Se T
	~1	f 1	PVC	CAS	SING	Logge	1. 24	15'	e - Jephan
	245 1	of 1	" P.V.	C. 1	Perfora Tec		/		, , , , , , , , , , , , , , , , , , ,
•	WATER	NAS	STAN	DINC	@ 90'	'	No Se	3 mple	.)

		117 - 80	
Rectifier Size: 40 Addn'l Depth	0 V 16 A	750.00	All Construction
Depth Credit:	2551	- 1020.°°	
Extra Cable:	30'	7.50	mel mel
Ditch & 1 Cable:	/55'	7.50 V 60 45 V 305.00 V	May M Face
25 'Meter Pole:	🄀	305.00	(Signati
20' Meter Pole:		GROUND BED LAYOUT SKETC	н
10' Stub Pole:		75.40V	GB.
Ditch - 2 Cable	145'		GD.
Junction Box	X	40.00V	
PUC CASING	80'	1.760.00	
		6278.35	155'

TAX 313.92

TOTAL 6592.27×

1881-W

P:O:BOX1359# PHONE:334-6141# AZTEC, NEW-MEXICO:87410# DEEP WELL-GROUNDBED LOG

Date 1:28:87

The same of the sa

#### BURGE CORROSION SYSTEMS, INC.

	F.O. BOX 1337 - PROME 334-014
1//	AZTEC, NEW MEXICO 87410
MERIDANC	11

COMPANY	. 28-5	/-/t DAIL	Y DRILLING REPORT	Mon 27	1987
WELL NAME:		WELL NUMBER:	SECTION:	TOWNSHIP:	RANGE:
			P08	28	05
. r	WATER AT:	FEET:	HOLE MADE:	,	
<u> 60'</u>			.300		
		DESCRIPTION OF	FORMATION		
FROM	то		FORMATION IS		COLOR ATTACK
0	80'	saved/cle	ry -8" C	dung	\$ 50 At 16 A
40	80' 300'	Shale	T <sub></sub>	Ø	1 gm
					1, 2, 46 1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
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REMARKS: -	dulled +	6 3001 lonesing 8"	of looke a	f 45-1	
hemanks: -	to set co	seria 8"	to 80'	set =	South
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Brian	- 8. Bur	ge Driller			Tool Dresser
	7				ing a second of the second of

Received by OCD: 9/20/2023 12:25:47-PM 30-039-07-457 #89E 30-039-23857

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Lo	cation: Unit SW Sec. 9 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced	SAN JUAN 28-5 UNIT #13, #89E
	cps 1108w
Elevation 6642' Completion Date 9/27/77 To	otal Depth 320' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts & ty	ypes usedN/A
If Cement or Bentonite Plugs have been p	placed, show depths & amounts used
Depths & thickness of water zones with of Fresh, Clear, Salty, Sulphur, Etc.	001
Depths gas encountered: N/A	
Type & amount of coke breeze used:	40 SACKS
Depths anodes placed: 275', 265', 205', 195'	, 180', 145', 135', 125', 115', 105'
Depths vent pipes placed: 280' OF 1"	PVC VENT PAPER FAMILE
Vent pipe perforations: 200'	MANY BE WANTED TO THE PARTY OF
Remarks: gb #1	WILD TOWN
	West 's

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.

#### CATHODIC PROTECTION CONSTRUCTION REPORT

Drilling Log (Attach Hereto).

Completion Date 9-2277

_,		Control of the contro	Comments of the Comment of the		一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、	12 452 Sec. 17-17. 18-45.	the state with the state with	in the same is a second of the second his	La principal de la companya del la companya de la c	Carrockes.
504	Well Name ***	I JUAN 2	28-5	3 Loca		-28-5	, , , , , , , , , , , , , , , , , , ,	CPS No.	11084	
	Type & Size B	it Used	3/4"			Į		Work Order No. 184 - 5	2964.19-50	-20
	Anode Hole De		Total Drilling Ric	Time To	tal Lbs. Coke Us 40: 5.2CA		ulation Mat'i Used	No. Sacks Mu	d Used	er eric Sare
	Anode Depth <b>275</b>	265	205	*4 195	#5 <b>180</b>	#6145	#7 <b>135</b>	8 /2 <i>5</i>	# 9 11 5 # 10 I	05
	Anode Output	(Amps) #-2 4.0	#3 4.5	#4 3.3	# 5 3.6	# 6 4-0	#74.9	\$ 53	# 9 <b>5, 2</b> # 10 4	1.9
	Anode Depth # 11	# 12	# 13 - Live	# 14	# 15	#16	# 17-2 #	18	# 19 # 20	
	Anode Output (	(Amps)	#/13	#14 3 J. R	# 15	#.16	#17 经基本基本	18	# 19 16 + 20	
10.11	Total Circuit	ers are error at the last the	ps 19:3		61	No. 8 C.P. Cab	le Used		No. 2.C.P. Cable Used	
7	liki Ary Care Art.		CONTRACTOR OF THE	un and a district	CHAPTANET.	AND MORNING	Kala shawarant.	every model		SEA PROPERTY

Remarks: DRIVER SOID HIT WOTER ST. 80

STATIC- 600 5= .72

INSTAlled 280' OF I'VENT PIPE, PERFORATED 200' OF VENT PIPE Slurryed 32 Sacks of Coke

40V 16A ROCT

All Construction Completed

Willes

(Signature)

GROUND BED LAYOUT SKETCH

Same

G.B

G.B

Rect.

28-5-7/3

DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion Office

PINK - Originator File

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Sheet: Page 52 of 181

SON JUON 28-5#13 W/0-184-5296419-50-22 Sw9-28-5 CPS 1108W

المراجعة الم	Carl Harmon	×	ARTO TOPO BAS QUAS	the transfer of the second	the second process and second	The same of the same	Marie Miles Asia In
	(72)7-0	600'572			DOUL- O CH	11 / - 1.0	E 0 3784
,	3/0/10-	000 3 - 1/2		<u> </u>	DRIVIER Sa	d Mil Wa	1618 2180
	40V 16A 9	rect	Î- :		INSTALLED	280 54 11	VENT PIPE
ı	STUB PO	/e			PERCORATED	700 of V	ent Pipe
MW gals/mol					Slurryed	40 Sacx	2 Core
30.07 C2 10.12					. h. 36, 39,		
44.10 C <sub>3</sub> 10.42						1 3%	
58.12 nC <sub>4</sub> 11.93			<u> </u>			" to	香花建設学
72.15 iC <sub>5</sub> 13.85 72.15 nC <sub>5</sub> 13.71					-   - 1	湯	数建碳原源
86.18 iC <sub>6</sub> 15.50					130 6 3 4		
86.18 C <sub>6</sub> 15.57 100.21 iC <sub>7</sub> 17.2			-			13/40	CALLEY WE SEE AS
100.21 C7. 17.48	1 803 p 1 2		19	3	1. 174. VE 95.1 %.	Contract of the Contract of th	
28.05 C2 9.64	V - 1 3 10 4		10 1 1			<b>万人,手 万</b>	W 35 36 37 45
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#### DAILY DRILLING REPORT

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DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS

NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit SE Sec. 9 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serv	icedSAN JUAN 28-5 UNIT #89
	cps 1117w
Elevation6690' Completion Date 9/26/77	Total Depth 320' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	& types usedN/A
If Cement or Bentonite Plugs have be	een placed, show depths & amounts used
Depths & thickness of water zones wi	th description of water when possible:
Depths gas encountered: N/A	
Type & amount of coke breeze used:	33 SACKS
Depths anodes placed: 280', 255', 245',	235', 225', 215', 160', 150', 140', 125'
Depths vent pipes placed: 288' 0	
Vent pipe perforations: 200'	1001
Remarks: gb #1	OIL CON. D"
	OIL COST ^

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.

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

Form 7-238 (Rev. 11-71)

## WELL CASING ) CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Well Name  San J	UDN 28-	5 # 8	9 Loca		- 28-5		CPS No.	1117W	
Type & Size I	Bit Used 6	34					Work Order	No. 4987.19-	50-20
Anode Hole D		Total Drilling Ri	ig Time To	tal Lbs. Coke U		culation Mat'l U	sed No. Sacks N	Mud Used	
Anode Depth # 1 <b>280</b>	# 2 255	# 3 24 5	# 4 23 <i>5</i>	= 5 2 2 <b>5</b>	÷ 6 215	# 7 <b>/60</b>	# 8 150	z 9 140	# 10 /25
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Anode Depth # 11	# 12	# 13	# 14	# 15	# 16	<b>#</b> 17	# 18	# 19	# 20
Anode Output	(Amps)	# 13	; ;# 14		# 16	# 17	# 18	# 19	# 20
Total Circuit	Resistance Am	ps 17.3	Ohms	.67	Νο. 8 С.Ρ. Сα	ble Used		No. 2 C.P. Co	able Used

Remarks: DRIVER Said HIT WATER AT 80°, Next A.M Blew WATER

STATIC - Goo' N = 168

INSTALLED 288' OF I'' VENT PIPE, PERFORATED 200' OF VENT PIPE

Slurgyed 33 Sacks Coke

HOV 16A Rect

STUD Pole

All Construction Completed

IIT SKETCH

GROUND BED LAYOUT SKETCH

DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion Office

PINK — Originator File

## El Paso Natural Gas Company ENGINEERING CALCULATION

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Сз	10.42
IC4	12.38
nC4	11.93
iC5	13.85
nC5	13.71
iC6	15.50
C <sub>6</sub>	15.57
íC7	17.2
C <sub>7</sub>	17.46
C8	19.39
C2 <sup>±</sup>	9.64
C3 <sup>±</sup>	9,67
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## EL PASO NATURAL GAS COMPANY DRILLING DEPARTMENT

#### DAILY DRILLING REPORT

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DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit SW Sec. Twp 28 Rng 5
Name of Well/Wells or Pipeline Servi	iced SAN JUAN 28-5 UNIT #19
	cps 1109w
Elevation6656' Completion Date 9/28/77	Total Depth 320' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	& types used N/A
If Cement or Bentonite Plugs have be	een placed, show depths & amounts used
Depths & thickness of water zones wi	th description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc	80 <b>'</b>
Depths gas encountered: N/A	
Type & amount of coke breeze used:	40 SACKS
Depths anodes placed: 235', 225', 215',	
Depths vent pipes placed: 240' OF	I" PVC VEIDPEGE
Vent pipe perforations: 200'	MI WANTED TO THE STATE OF THE S
Remarks: gb #1.	OIL CON. DIV.
	DIST. 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.

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

Form 7-238 (Rev. 11-71)

#### WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Well Name SHぃ ま	upn 28-	5 UN;+ 3	#19 S	w 10 - 2	8-5		CPS No.	w	
	63/4	4.					Work Order <b>532</b>	No. 63.19	
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GROUND BED LAYOUT SKETCH

WI Loute

(Signature)

DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion Office

PINK — Originator File.

## El Paso Natural Gas Company ENGINEERING CALCULATION

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#### DAILY DRILLING REPORT

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30-039-21864

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 coning to OCD Arton Office)

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit SE Sec. 10 Twp 28 Rng 5
Name of Well/Wells or Pipeline Servi	.ced <u>SAN JUAN 28-5 UNIT #96</u>
	cps 1540w
Elevation 6712 Completion Date 6/2/80	Total Depth 430' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	& types used N/A
If Cement or Bentonite Plugs have be	en placed, show depths & amounts used
N/A	
Depths & thickness of water zones wi Fresh, Clear, Salty, Sulphur, Etc.	th description of water when possible: 40' SAMPLE TAKEN
riosn, orear, barey, barphar, bee	
Depths gas encountered: N/A	·
Type & amount of coke breeze used:	44 SACKS
Depths anodes placed: 375', 355', 340',	320', 290',,270', 255', 245', 235', 210'
Depths vent pipes placed: 420'	REGETYEN
Vent pipe perforations: 360'	MAY 3 1 1991
Remarks: gb #1	OIL CON. DIVJ
	, voil 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

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

El Paso Natural Gas Company Form 7-238 (Rev. 11-71)

## WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

	Loca	tion	nes		CPS No.	15.	
Yell Name 5, J 28-5 # 9 (	ę	JEIC	) -	<u> </u>	Work Order (	1540 W	<u> </u>
Type & Size Bit Used 6341	- Time Ire	tal Lbs. Coke Us	end Lost Curs	rulation Mat*1 Us	ed No Sacks M	5750§	1-21
1099ed 420'		44 Sac		Turdion Flat 1 05	ed 140. Sucks in	T Sea	
1 375 : 2 355   1 3 340	1-4 320	290	- 6 270	= 7 255	* 8 <b>245</b>	23' <b>5</b> ."	# 10 <b>27</b> 2
node Output (Amps) 1 3.3 # 2 3.1 # 3 3.8	± 4 3.8	· 5 4.6	= 6 3.2	= 7 3.25	* 8 <b>385</b>	#94.76.	# 10 <b>3.76</b>
node Depth	# 14	  #·15	# 16	<b>≠</b> 17	# 18	#-19 ·	#r 20.3
11 # 12 # 13	i	# 15	# 16		  # 18	#19	#.20
Total Circuit Resistance Volts // 3   Amps 11.9		.60	No. 8 C.P. Cal	ole Used , ,	and an opening	No. 2 C.P. Cab	le Used
			264		~~·	NP-1104	-63.
emarks: STOTIC 600'N							
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1 1/4 0				_ It.	els &	amah	- In
1 40V 16A REET					(Sig	gnature) 🕖	0
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DITCH+ 1 Cable-27	75′ <sub>G</sub>	ROUND BED (	-AYOUT SKET	-CH	4 Hrs. 1 5 Hrs. 1		
DITCH + 1 Cable-27 EXTRA Cable - 214	7 <i>5</i> ′ <sub>6</sub> 1′	ROUND BED L	AYOUT SKET		5Hrs.		1
DITCH+ 1 Cable-27 EXTRA Cable-214 Hole - 80'	7 <i>5′</i> <sub>6</sub>	ROUND BED L		0 6			
DITCH + 1 Cable-27 EXTRA Cable - 214	7 <i>5</i> ′ <sub>6</sub>	ROUND BED L		0 6	5Hrs.		
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DITCH+ 1 Cable-27 EXTRA Cable-214 Hole - 80'	7 <i>5</i> ′ <sub>6</sub>		ali de la companya de	ه م	5Hrs. (		
DITCH+ 1 Cable-27 EXTRA Cable-214 Hole - 80'	7 <i>5</i> ' <sub>6</sub>		ali de la companya de	ه م	5Hrs. (	0.T.	

IELLOW - Area Corrosion Office

PINK — Originator File

10712

Sheet: \_\_\_\_\_of\_\_ Date: -- \_ \_ \_ - \_ \_ -

28-5 796 S. J. SECPS 10- 28-5 1540 W Wo 57505-21

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. *	86.18	С6	15.57
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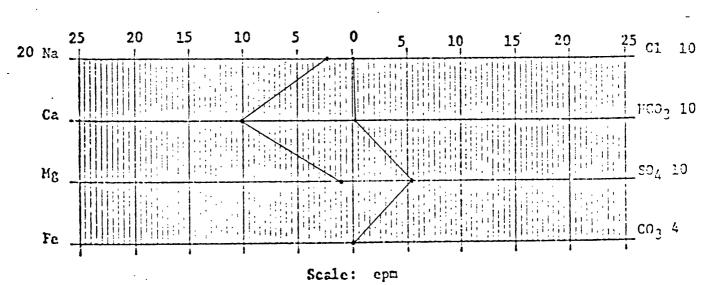
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215

# EL PASO NATURAL GAS COMPANY SAN JUAN DIVISION FARMINGTON, NEW MEXICO PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9913	Date6-23-80	
Operator El Paso Natural Gas	Well Name San Juan 28-5 #96	<del></del>
Location SE 10-28-5	County Rio Arriba State New Mexico	<del></del>
Field Basin	Formation Dakota	
Sampled From CPS		
Date Sampled 6-2-80	Ву	, ° <del></del>
Tbg. Press Csg	g Surface Csg. Press	-
ppm         epm           Sodium         1035         45	ppm epm chloride 10 .3.	
Calcium 204 10	Bicarbonate 137 2 2	
Magnesium 16 1	Sulfate 2600 54	
IronNo Test	Carbonate 0 0	<del></del>
H <sub>2</sub> S Present	Hydroxide 0 0	
cc: C.B. O'Nan	Total Solids Dissolved 4066	
R.A. Ullrich E.R. Paulek	рН7.9	<del></del>
J.W. McCarthy A.M. Smith	Sp. Gr. 1.0046 At	60°F
W.B. Shropshire D.C. Adams	Resistivity 211 ohm-cm at	77 <sup>O</sup> F
File	· Releverate Renetalan	
	Chemist	ZE



Form 22-2 (Rev. 1-61)

#### EL PASO NATURAL GAS COMPANY

		J.,		•		_			DRILLI	NG DEPARTMENT	,				11	,			
SAN	Janen	28-	5	Λυ. 96 WELL NO.	Three	C D	rilling	٦			2			5 1540			ILY DRILLING F		
LEASE	SEI	0-28	-5	WELL NO.	CON	TRACTO	₹ •	<i>)</i> 		F	IG NO.		REP	ORT NO	0.57	505	-ZATE June	2	19 <b>80</b>
			JORNII	NG				D	AYLIC	нт			EVENING						
Driller	Kevin	Bun	C	Total More In Crew	2	Onller				Total Men In	Crew		Driller				Total Men In	Crew	
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30.039-07417

88-30-039-20475
DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO

Operator Meridian	Location: Unit K Sec. 15 Twp 28 Rng 5
Name of Well/Wells or Pipeline Se	rviced SAN JUAN 28-5 # 10+
#88	
Elevation Completion Date 8-28	Total Depth 405 Land Type
Casing Strings, Sizes, Types & Dep	pths 8" PVC Surface CASING
80 DEEP	
	how amounts & types used $\sqrt{es-22}$
SACKS NEAT CEMENT	
If Cement or Bentonite Plugs have	been placed, show depths & amounts used
~~~.	
Depths & thickness of water zones Salty, Sulphur, Etc. Fresh	with description of water: Fresh, Clear,
Depths gas encountered: NC	)
Ground bed depth with type & amoun	nt of coke breeze used: 405 w.+L
	bags Asbury 4518 Flo Coiks
•	, 294, 285, 249, 240, 230, 220, 211, 20 3145
Depths vent pipes placed: 405'	
Vent pipe perforations: DOTTON	DEGEIVE III
Remarks:	FEB2 4 1992
·	OIL CON. DIV.
	DIST. 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.

## CPS GROUND BED CONSTRUCTION WORKSHEET

[ ] [ ] [ NAME ( ) , NUMBER ( ) 5. J. 28-5 # 10 , #88												
n #49	9498A 064A	TOTAL	VOLTS	46	27. (	e	эн <b>мв</b> , 5	DA 8.	28-91	NAME	Rω	
REMARKS (notes for construction log) 80' 8" - ZZ CEMENT							ganganama se					
WA	WATER 100' perfoRATED bOTTOM 300'											
TI	> 40	\$										
40 3 45 6	<i>. O</i>						Lores					e de la companya de l
DEPTH	LOG	ANODE	DEPTH	LOG	ANODE	DEPTH	LOG	ANODE	DEPTH	Log	ANODE	
	ANODE	-		ANODE			ANODE			ANODE	*	٠
100	2.0	.	295	3.1		490			685			
105	1.7	.	300			495			690			-
110	1.7	.	305	1.9		500			695			
115	2.4		310	1.3		505			700			700gu
120	20	ll	315	.9		510			ANODE	DEPTH	NO ,,	FULLY
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130	3.1		325			520			1_1_	375	2.3	-4.0
135	3.5	.	330	.4		525			2	365	2.76 2.8 3.1	4.8
140	3.6	·	335	.4		530			3	<u>303</u> 294	2.8	4.9
145 150	3.5		340			535			4	294	3.1	5.8
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175 180	1.0		370	2.5		565			10	211	3.4 3.7 3.7 2.9	-7. 7
180	.9		375	2.2		570			11	202	2.9	7.1
185	. 7		380	1.6		575			12	145	3.5	6.4
190	. 8		385	1.5		580			13			
195	1.1		390	1.4		585			14		*	-
200	17		395	1.5		590			15			
205	3.9		400	2.0		595			16			-
210	3.6 3.7		405	1.1	TD	600			17			
215	3.7		410			605			18			
220	3.6		415			610			19			
225	3.2		420			615			20			_
230	3.2		425			620			21			
235	3.3		430			625			22			
240	3.1		435			630			23			
245	2.7		440			635			24			
250	1.9		445			640			25			
255	1.1		450			645			26		· · · · · · · · · · · · · · · · · · ·	
260	. %		455			650			27			
265	1.3		460			655			28			
270	6		465			660			29			
275	1 1	]	470			665			30			
280	1.3		475			670						
	2.4		480			675						
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DISTRIBUTION - original - permanent CPS.FILE.

copy - Division Corrosion Supervisor

copy - Region Correction Specialist

#### API WATER ANALYSIS REPORT FORM

Laboratory No. 259/083	BO-/I	ALTOIO HEI OF	- Chivi		
Company MERIDIAN		i	aple No.	Date Sampled 8/28	/91
Field	Legal Description	28-5	County or Parish	/ 1	I, M.
Lease or Unit	Well SJ 18-5 #10	Depth I	Formation	Water, B/D	_5
Type of Water (Produced, Supply	y, etc.) Samp	pling Point LOUND BED /		Sampled By	
DISSOLVED SOLIDS		OTHER PROPERT			
CATIONS	mg/l me/l	рН		<u> </u>	3,3 00Z
Sodium, Na (calc.) Calcium, Ca Magnesium, Mg Barium, Ba	480 21 48 2,4 9,1 0,8	Specific Gravity, 6 Resistivity (ohm-m			00Z) 5.70
ANIONS			Total Dissolved Sc	olids (calc.)	700
Chloride, CI Sulfate, So <sub>4</sub> Carbonate, CO <sub>3</sub> Bicarbonate, HCO <sub>3</sub>	790 16 0 0 310 5.0	REMARKS & REC	Iron, Fe (total) Sulfide, as H₂S OMMENDATIONS:		
25 20 1	15 1,0 5	 0 5	1,0 1,5	20 2	25
0 20 Ca					HC03
					504
					io co,
Date Received	Preserved	Date Analyzed /	1	Analyzed By	
8/30/9/	No	8/31/9		5	<del>-</del> ',



TECH, Inc. 333 East Main Farmington New Mexico 87401 505/327-3311 Received by QCD: 9/20/2023 13:25;17 PM 30 - 039 - 07442 - 9/0 93 - 30 - 039 - 20876 201 - 30 - 039 - 24474

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit NE Sec. 15 Twp 28 Rng 5
Name of Well/Wells or Pipeline Ser	viced SAN JUAN 28-5 UNIT #27, #93, #201
	cps 1115w
Elevation6681' Completion Date 10/21	/77 Total Depth 220' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	s & types usedN/A
If Cement or Bentonite Plugs have N/A	been placed, show depths & amounts used
Depths & thickness of water zones	with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc.	107' - 119'
Depths gas encountered: N/A	
Type & amount of coke breeze used:	40 SACKS
Depths anodes placed: 185', 145', 125'	
Depths vent pipes placed: 220'	OF 1" PVC VENT PIPE
Vent pipe perforations: 120'	37 32
Remarks: 'gb #2	Mary COK.
	110 0121.

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.

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

#### Form 7-238 (Rev. 11-71)

#### WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Heret		\$7°				ompletion L	ate	1-77
Well Name	· #	27 Loca	ation			CPS No.		4° 2
SAN JUAN 28-8	WMit #	93 N	E 15-2	8-5			5W	÷
Type & Size Bit Used						Work Ord	er No.#27= 2	53463.19
6 3/4"							# 93 c 4	5635.21
Anode Hole Depth 320	Total Drilling Ri	g Time To	tal Lbs. Coke I	Jsed Lost Cı	rculation Mat'l U	Jsed No. Sack	s Mud Used	- 15
Lossed-308			56	l				*Tong .
Anode Depth		1	1.	1				
# 1 <b>285</b>   # 2 275	1 # 3 2 6 5	# 4 255	# 5 240	# 6 215	# 7 205°	# 8 198	# 9 1 86	# 10 185
Anode Output (Amps)		1		1			X	1 1
#14.1 #24.9	# 3 4.6	# 4 <b>3.6</b>	# 5 2.6	# 6 2.6	# 7 4.2	# 6		# 10 Z.8
Anode Depth	_	1	1					1
± 11 145  # 12 125	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)	. 1	1	1	1	1	1		7
# 11 <b>2.2</b>   # 12 <b>2.5</b>	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance	•		•	No. 8 C.P. C	able Used	**************************************	No. 2 C.P.	. Cable Used
Volts //.5 An	nps 13.4	Ohms 0	.86					

Remarks: STATIC = 27 600 N = 0.72, STATIC = 93 600 5 = 0.75 INSTAlted 10-2"x2" x48" GRAPhite Anodes. DRiller SAId MAKING WATER @115. Installed 300'051" PUC VENT Pipe. Perferated 200'051" Pre Vent Pipe, Hobo Bridged Above Anode #8 \$ #9. Drilled Hole #2. Installed Anodes # 10, #118 Installed 220'051' Pue vent Pipe & Peascapted 120'05 vent Pipe in tole #2 Slugged 56 SAUKS OF COKE IN HOLO #1 & 40 SAUKS OF COKE IN HOLE #2, Installed 60030 A ROCTIFICA SSTUB POLC

All Construction Completed **GROUND BED LAYOUT SKETCH** WHITE - Division Corrosion Office YELLOW - Area Corrosion Office - Originator File

DISTRIBUTION:

PINK

### El Paso Natural Gas Company ENGINEERING CALCULATION

$\boldsymbol{P}$	Page 72 of 181
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Hore #/

SAN JUAN 28-5 UNIT# 27 53463.19 SAU JUAN 28-5 NN;+#93 11154 Static 600 N= 0.72 DRILLER SAIDMAKING WATER @115 Static 600 5= 0.75 = 27 Stanted two @ PERSERAted 200' AS 1" PULLUTY + Pipe 600 30A Rectifier Installed 300 of 1" Puc yent ripe MW gals/mol 16.04 C<sub>1</sub> 6.4 Stub Pole STURRYEL SO SACKS OFCOKE 30.07 C<sub>2</sub> 10 12 44.10 C<sub>3</sub> 10 42 58.12 iC4 12.38 58.12 nC4 11 93 iC5 72.15 nC<sub>5</sub> 13.71 86.18 iC<sub>6</sub> 15.50 86 18 C<sub>6</sub> 15.57 100.21 IC7 17.2 100.21 C7 17.46 60 1.5 -1 114.23 Cg 19.39 115.4 28.05 C2: 964 42.08 C3<sup>2</sup> 9.67 20.10 801.6 1.4 90.1.4 ...4 401.2 -.9 ? 60 .4 70.5 海鱼生产 .4 MISC. gals/moi Q 285 MW 1.8 1.0 3.6 (9)32.00 - O2 3 37 2.2 701.4 28.01 44.01 CO<sub>2</sub> 6.38 (8) 2.1 D 265 1.6 64.06 SO<sub>2</sub> 5 50 Holie D 255 1.8 3.6 2001.8 34.08 H<sub>2</sub>S 5 17 28.01 2.6 3 240 .):4 2.02 H<sub>2</sub> 3.38 2:6 1.4 10:1.4 P 6215 4.2 (2) 205 11.2 -20.1.0 9 195 9 185 30.9 10185 1:6 2.8 40 1.1 (1) 145 (2) 125 Holo 2.2 1.0 50 .8 1.43 11.5 Volts 13.4 AMPS 0.86 OHMS

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### El Paso Natural Gas Company ENGINEERING CALCULATION

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MW	ga	is/moi
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58.12	ıC4	12 38
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72.15	iC5	13 85
72.15	nC5	13.71
86.18	iC <sub>6</sub>	15.50
86.18	C <sub>6</sub>	15 57
100.21	IC7	17 2
100.21	C7	17 46
114.23	C8	19.39
28.05	C2	9.64
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Form 22-2 (Rev. 1-61)

#### EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

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Form 22-2 (Rev. 1-61)

Hohie

EL PASO NATURAL GAS COMPANY

#### DALLY DRILLING REPORT

LEASE	•			WELL NO.	1113	CON	TRACT	OR P	5E4	Des	こしんエト	Co.F	RIG NO.		RE	PORT	NO.		DATE	Oct.	.3	1977
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Received by OCD: 9/20/2023 12:25:17 PM 39 -07-413

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS

NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator	MERIDIAN OIL	Locat	ion: Unit SW S	ec. <sup>17</sup> Twp. <sup>28</sup> Rng. <sup>5</sup>
Name of We	ll/Wells or Pipelin	e Serviced	SAN JUAN 28-5	UNIT #33
				cps 1121w
Elevation <u>66</u>	689' Completion Date	9/1/77 Tota	l Depth <u>400'</u>	_Land Type* N/A
Casing, Siz	zes, Types & Depths		N/A	
If Casing	is cemented, show a	mounts & type:	s used N/A	
	or Bentonite Plugs /A	have been plac	ced, show dep	ths & amounts used
Depths & th	nickness of water z	ones with desc	cription of w	ater when possible:
Fresh, Clea	ar, Salty, Sulphur,	Etc.	210' - 235'	
Depths gas	encountered:	N/A		
Type & amou	unt of coke breeze	used:	37 SACKS	
Depths anod	ies placed: 360', 350	', 340', 330', 30	00', 290', 280'	, 270', 260', 245',220';
Depths vent	pipes placed:	380' OF 1" PVC	VENT PIPE	CEIVEM
Vent pipe p	perforations:	200'	IW.	
Remarks: <u>~g</u>	6 #1 NO COKE AROUN	D #8 & #9 ANODES	•	MAY 3 1/1991
			Oll	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.

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

Form 7-238 (Rev. 11-71)

## WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT. DAILY LOG

is Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual An Annual Annual	•		* * * *			*, 1
Drilling Log (Attach Hereto).	* *			ompletion Da	9-1-	77
Well Name	1.					
S.T 28-5 # 33	Sw17	- 28-5	_	CPS No.	11214	ر <u>َ</u>
Type & Size Bit Used 6 3/4				Work' Order	No. . 0 3 5 5 . 1 9.	-50-20
Anode Hole Depth 400 Total Drilling Rig Time	Total Lbs. Coke U		culation Mat'l U	sed No. Sacks N		,
Anode Depth		<del></del>			T	
# 1 360 # 2 350 # 3 340 # 4 3 Anode Output (Amps)	30 75 300	<b># 6 290</b>	* 7 2 8 D	# 8 2 76	# 9 269-	# 10 245
# 1 3.0   # 2 3.0   # 3 3.3   # 4 2	.7 # 5 3.0	# 6 4-8	#-7-4.9	# 8	# 9	# 10 3.8
Anode Depth # 11 <b>220</b> # 12 <b>210</b> # 13 # 14	# 15	;  # 16	# 17	¦  # 18	# 19	# 20
Anode Output (Amps) # 11 2.7 # 12 3.8 # 13 # 14	 	# 16	# 17	# 18	    # 19	# 20
Total Circuit Resistance		No. 8 C.P. Cal		1# 10	No. 2 C.P. Ca	ble Used
Volts //. 3 Amps 20 Oh	ms . <b>57</b>					
Remarks: DRILLER SOIN HIT W						<u>.</u>
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30.07	C <sub>2</sub>	10.12
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58.12	iC4	12.38
58 12	nC4	11.93
72.15	iC5	13.85
72.15	nC5	13.71
86.18	iC6	15.50
86.18	C <sub>6</sub>	15.57
100.21	ıC7	17.2
100.21	C <sub>7</sub>	17.46
114.23	C <sub>8</sub>	19.39
28.05	C2 <sup>z</sup>	9.64
42 08	C3 <sup>2</sup>	9.67

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Received by OCD 9202023 127527 8M 30-039-07428 #75 30-039-20108

Operator MERIDIAN OIL

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS

NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Location: Unit NE Sec 17 Twp 28 Rng 5

Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #28, #75
cps 1120w
Elevation6589' Completion Date 9/8/77 Total Depth 320' Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used N/A
Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 97' DIF GENERAL
Depths gas encountered: N/A OIL CON. DIV.
Type & amount of coke breeze used: 38 SACKS \ DIST. 3
Depths anodes placed: 270', 260', 250', 230', 220', 210', 200', 165', 155', 145'
Depths vent pipes placed: 280' OF 1" PVC VENT PIPE
Vent pipe perforations: 200'
Remarks: gb #1 .
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.

#### Form 7-238 (Rev. 11-71)

SAN JUAN 28

Type & Size Bit Used

### ) WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Hereto). 
Completion Date 9-8-77

CPS No.

//20 //

Work Order No#28= 53464619

\*\*75= 5455519

ton Mat'! Used No. Sacks Mud Used

	634							* 75= 5	4555119
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Anode Depth # 1 <b>270</b>	# 2 260	# 3 <b>250</b>	# 4 <b>23</b> 0	# 5 <b>220</b>	# 6 210	# 7 <b>200</b>	= 8 165	= 9 155	# 10 <b>/ 45</b>
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Anode Depth # 11	# 12	# 13	# 14	# 15	# 16	<b>#</b> 17	# 18	# 19	# 20
Anode Output	(Amps)    # 12	# 13	# 14	¦ ¦# 15	# 16	# 17	  # 18	# 19	# 20
Total Circuit	1	nns <i>III.</i> 2	l Ohms	0.85	No. 8 C.P. C	able Used		No. 2 C.P. Co	rble Used

Remarks: Static #28 600'SW=0.77, Static #75 600'SE=0.68

DRiller Spid Making water between 97' \$119'. Drilled to 120' Next AM.

blew water. Started Inj. @120'. Perferated 200'of 1"PVC vent Pipe
Installed 280' of 1"Pvc vent Pipe. Slurryed 38 Sacks of Coke.

#28 Marked I Notch #75 Marked 3 Notches

Installed 600 30A Rectifier & Stub Pole

All Construction Completed

W. Z. Louds

346 GROUND BED LAYOUT SKETCH

and Bed

DISTRIBUTION:

WHITE - Division Corrosion Office

YELLOW - Area Corrosion Office

PINK - Originator File

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30-039-23113

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS. NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit D Sec. 17 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #28A
cps 1882w
Elevation 6660' Completion Date 6/18/87 Total Depth 400' Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types usedN/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used _N/A
Depths & thickness of water zones with description of water when possible:  Fresh, Clear, Salty, Sulphur, Etc. 120' NO SAMPLE
Depths gas encountered: N/A
Type & amount of coke breeze used: N/A
Depths anodes placed: 355', 345', 265', 225', 215', 205', 195', 155', 145', 135'
Depths vent pipes placed: N/A DEGETTE
Vent pipe perforations: 320' MAY 31'1991
Remarks: gb #1 CON MV

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.

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

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

## WELL CASING— CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Page	85 of 181
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Drilling Log (Attach Hereto)	motor Inte 95:	5240/ Complet	ion Date 6-18-87
CPS # Well Name, Line or Plant.	Work Order #	Static ·	Ins. Union Check
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Anode Output (Amps) # 11  # 12  # 13  # 14	# 15   # 16	# 17 # 18	# 19 # 20
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## BURGE CORROSION SYSTEMS, INC.

CPS 1882 W

P.O. BOX 1359 - PHONE 334-6141 AZTEC, NEW MEXICO 87410

COMPANY	Meridian Oil	DAIL	PORILLING REPO	AT:6-18-87	19
WELL NAME:		WELL NUMBER:	SECTION:	TOWNSHIP:	RANGE:
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P.O. BOX 1359 - PHONE 334-6141 AZTEC, NEW MEXICO 87410

Date 6-18-87

30-039-23812

## DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit_J_Sec.17_Twp28_Rng_5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #33A
cps 1884w
Elevation6585' Completion Date 6/19/87 Total Depth 340' Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A
Depths & thickness of water zones with description of water when possible:  Fresh, Clear, Salty, Sulphur, Etc. 130' SAMPLE TAKEN
Depths gas encountered: N/A
Type & amount of coke breeze used: N/A
Depths anodes placed: 305', 285', 275', 265', 240', 230', 220', 190', 180'
Depths vent pipes placed: 335'
Vent pipe perforations: 230'
Remarks:gb #1 / MAY81/1991
OIL CON. DIV
INCT • "

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.

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

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Page 89. of 18.
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TOTAL TOTAL

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P:O BOX 1359: PHONE 334 6141 AZTEC, NEW MEXICO 87410 DEEP WELL GROUNDBED LOG

Page 90 of 181

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### BURGE CORROSION SYSTEMS, INC.

CPS 188400

P.O. BOX 1359 PHONE 334-6141 AZTEC, NEW MEXICO 87410

COMPANY Meridi	an Oil	DAIL	Y DRILLING REPOR	June 24,	19 87
WELL NAME:		WELL NUMBER:		TOWNSHIP:	RANGE:
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Kevin Bu	use.	<b>Driller</b>			Tool Dresser
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CPS 188412)

### API WATER ANALYSIS REPORT FORM

Company Meridian	noûco.			Sample No.	Date	Sampled   - 19 - 87
Field	Legal D	escription 1-28-5		County or Par	ish L	State NM
Lease or Unit	Well \$5-28-5	#33A	Depth 130	Formation Mesa Ver Le	Wat	er, B/D
Type of Water (Produced, G. 13.	Supply, etc.)	Sampling G.B.				pled By Evan 5

#### DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.) Calcium, Ca Magnesium, Mg	230	
Magnesium, Mg Barium, Ba		
		<del></del>

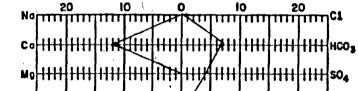
#### OTHER PROPERTIES

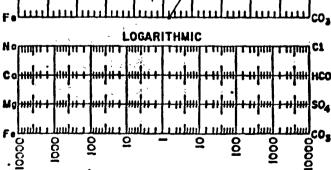
pH	8.99
Specific Gravity, 60/60 F.	1.0027
Resistivity (ohm-meters) 74°F.	1.1 X102
Conductivity	8.9×104 mho

### WATER PATTERNS — me/l STANDARD

#### **ANIONS**

Chloride, Cl Sulfate, SO <sub>4</sub> Carbonate, CO <sub>3</sub> Bicarbonate, HCO <sub>3</sub>	14 200 30 425	.4 4.1 1.0 7.0
		* <del>************************************</del>





Total Dissolved Solids (calc.) 900

Iron, Fe (total)

Iron, Fe (total)

Sulfide, as H<sub>2</sub>S

O

#### REMARKS & RECOMMENDATIONS:

This sample contained a large amount of suspended clay which was feltered with difficulty. Only small vames of feltrate were obtained # 17= 30-039-07364 #54= 30-039-07358

4911

## DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: UnitSW Sec.20 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #17, #54
cps 727w
Elevation 6720' Completion Date 8/29/83 Total Depth 500' Land Type* N/A
Casing, Sizes, Types & Depths 40' OF 8" CASING
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A
Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 140' NO SAMPLE
Depths gas encountered: N/A
Type & amount of coke breeze used: 5000 lbs.
Depths anodes placed: 405', 375', 365', 355', 345', 335', 305', 295', 245', 235'
Depths vent pipes placed: 500' OF 1" PVC VENT PIPE
Vent pipe perforations: 400' RECEIVED
Remarks: <u>GD #2</u> MAY31 1991
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.

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

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

## WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT

Completion   Date   State   Date   State   Date   Date   State   Date   State   Date   State   Date   State   Date   State   Date   State   Date   Date   State   Date   Date   State   Date				DAILY LOG				
Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Control   Cont	Drilling Log (Attach H	(ereto)			C	ompletion D	ate 8-29	283
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Depth Drilled 500 Depth Logged 500 Drilling Rig Time Total Lis Code Used Lost Circulation Mar'l Used No Sacks Mud Used  Anode Depth	Location			RiPari	Size Bit	3/11	<del></del>	
Anode Depth	Depth Dulled	Depth Logged					No Sacks Mud Us	sed
# 1 405 # 2 375 # 3 365 # 4 355 # 5 345 # 6 335 # 7 305 # 8 295 # 9 245 # 10 232  Anded Output (Amps) # 1 3,15 # 2 3 4 # 3 3 3 # 4 3 9 # 5 3 3 # 6 2 8 # 7 3.6 # 8 3 3 # 9 3, 4 # 10 4.  Anded Depth # 11 # 12 # 13 # 14 # 15 # 16 # 17 # 18 # 19 # 20  Anded Output (Amps) # 11 # 12 # 13 # 14 # 15 # 16 # 17 # 18 # 19 # 20  Total Circuit Resistance Volts /2,2 Amps /4,5 Ohms : \$4 No. 8 C.P. Cable Used  Volts /2,2 Amps /4,5 Ohms : \$4   Remarks: DR1/14R Said hit water 2 & Tlub Did Not get water Sample.  INSTALION 500' Of I" Vent P. Pe Performated 400' of Vent P. Pe  S/URRIed 5000 # 0f COKe Breeze Set 40' of 8" Casing  Rectifier Size: V Addn'l Depth Depth Credit: 5' Ditch & 1 Cable: 130'  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signature  Signat		500	,}					<del></del>
Anode Output (Amps)   # 1 3 1 5   # 2 3 4   # 3 3 3   # 4 3 9   # 5 3 3   # 6 2 8   # 7 3 6   # 8 3 3   # 9 3, 4   # 10 4.     Anode Depth   # 11	# 1 405   # 2	375   3365	<sub>#4</sub> 355   <sub>#5</sub>	345 46335	7 305	1 8 295	1 245	# 10 235
Anode Depth			1	ı	1	1		1
Anode Output (Amps)  # 11  # 12  # 13  # 14  # 15  # 16  # 17  # 18  # 19  # 20  Total Circuit Resistance Volts /2, 2  Amps /4. 5  Ohms i 84  No. 8 C.P. Cable Used  Remarks: DRI/IER Sa.d h.T water 2T 140  O; Not get ivoter Sample.  FNST3/10d 500' of 1" Vent P. Pe Performed 400' of Vent P. Pe  S/URRIed 5000 # 0f COKe Breeze Set 40' of 8" Casing  Rectifier Size: V Addn'l Depth Depth Credit: Extra Cable: 5' / Ditch & 1 Cable: 130'  Mills Languard Amps / Signature)	# 1 3./3 # 2 Anode Depth	J 7 #3 J 3	# 4 3 / # 5	3.) #62.0	# / J, U	+ 3 )	† 9 J, 7	# 10 4, 2
Rectifier Size:  V — A Addn'l Depth Depth Credit:  Extra Cable:  Ditch & 1 Cable:  130'  Retail R 19  R 15  R 16  R 17  R 18  R 19  R 19  R 20  No. 8 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable Used  No. 2 C.P. Cable			# 14 # 15	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance  Volts /2, 2   Amps / U. 5   Ohms : 84   No. 8 C.P. Cable Used  Remarks: DRITTER Said hit water 2T 140 Did Not get water Sample.  FNSTATION 500' Of 1" Vent P. Pe Perforated 400 of Vent Pipe.  S/URRIED 5000 # Of COKE BREEZE SET 40' Of 8" Casing  Rectifier Size: V — A  All Construction Completed  Depth Credit: 5'  Extra Cable: 5'  Ditch & 1 Cable: 130'  Signapoli	1	l	# 14 # 15	  # 16	# 17	# 18	# 19	# 20
Remarks: DRIVER Said hit water at 140. Did NOT get water Sample.  FNSTAVIOR 500. Of 1" VENT P. P. PERFORATED 400. OF VENT PIPE.  S/URRIED 5000 # Of COKE BREEZE. SET 40' OS 8" CUSING  Rectifier Size: V — A  Addn'l Depth — Depth Credit: Extra Cable: 5' Ditch & 1 Cable: 130'  SIZEMANDER OF WATER STAMPLE.  Ditch & 1 Cable: 130'  SIZEMANDER OF WATER STAMPLE.  Ditch & 1 Cable: 130'  SIZEMANDER OF WATER STAMPLE.  Did Not For Water Sample.  All Construction Completed  William January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January January Janua	Total Circuit Resist	ance		No. 8 C.P. (	Cable Used		No. 2 C.P. Ca	ble Used
Rectifier Size:VA Addn'l Depth Ditch & 1 Cable: 130'	Volts /2, 2	Amps / 41.5	Ohms : 0	7				
Rectifier Size: V — A Addn'l Depth — — — — — — — — — — — — — — — — — — —	Remarks: DR111	er Said hit	WATER 2	T 140 0;	dNOT9	et ivo	Ter Sa	mPle.
Rectifier Size: V — A Addn'l Depth — — — — — — — — — — — — — — — — — — —	FNST2110d	500' 04 1"	VENT P.P	e Perfor	ated W	00, 04	VENT	Pipe.
Rectifier Size: V — A  Addn'l Depth — — — — — — — — — — — — — — — — — — —	_			,				
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Depth Credit:  Extra Cable:  Ditch & 1 Cable:  (Signature)			A			All Construc	ction Complete	·d
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### EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

				225										DA	ILY DRILLING	REPORT					
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			MORNING	71			DA	AYLIGHT						EVENING							
Driller			Total Men In	Crew	Driller			Total Men In	Crew		Driller				Total Men In Crew						
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El Paso Natural Gas Company ENGINEFRING CALCULATION SHEET 53265-19-50-20-63 ST 28-5# 54 Sw 20.28-5 184-54254-19-50-20-62 DRIVER Sold hit water at DID NOT get water sample. INSTAMPED 500' OF 1" VENT P. Pe. Perorated 400. of Vent Pipe. Storkied 5000 /bs. Of COKE BREEZE, SET 40 of 8" ソンゴン ヘューシ ひゅ 3 hes Casing 405 305 305 305 305 909000000 00000000 0 h 

4913

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit B S	ec.20 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UN	NIT #14, #63
	cps 726w
Elevation 6729 Completion Date 8/3/88 Total Depth 400'	Land Type* N/A
Casing, Sizes, Types & Depths N/A	
If Casing is cemented, show amounts & types used N/A	
If Cement or Bentonite Plugs have been placed, show dep	ths & amounts used
L/L	ater when possible:
Depths gas encountered: N/A OIL CO	· •
Type & amount of coke breeze used: N/A DIS	T. 3
Depths anodes placed: 340', 330', 320', 310', 245', 190', 180'	, 165', 155', 150'
Depths vent pipes placed: 405' OF 1" PVC VENT PIPE	
Vent pipe perforations: BOTTOM 280'	
Remarks: <u>Cgb #2</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.

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

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

### WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT

Resbill

Drilling Log (Attach Hen	ereto) 🔣			Cong 8-	255 255	Completion	Date <u>8-3-6</u>	<u>98</u>
CPS #	Well Name, Line or Plant:		W or	rk Order #	Static:		Ins. Union Check	.k
		3		B 20-28-		069 (A 2	Ø Good	d 🗆 Bad
726W	1 1 1 11	14	H	120-28-5	- <del> </del> - <del> </del> - <del> </del> -	9696A -		
Location:	Anode Size:	Anode Typ	/pe:	<u> </u>	Size Bit:	911		
8 20-28-5	2" × 60	T .		KON	<b>23</b>	<del></del>		-
Depth Drilled	Depth Logged	Drilling Rig Time	æ	Total Lbs. Goke Used	Lost City	rculation Mat'l Used	No. Sacks Mud I	Used
Anode Depth		<del>-</del>	<del></del>	1	<del></del>	<del></del>		<u> </u>
#1340 #23	330 #3 <i>320</i>	# 43/0	# 5 24.	5 = 6 190	7 18	30   18 16:	5 49 155	# 10/50
Anode Output (Amps)		1	# 5 <i>if.</i> E	8 4.8	- <del> </del> -	1	4	i .
# 1 5 0 # 2 5 Anode Depth	5.5 #35.7	# 45-4	# 5 70 €	5 7.0	#/3.	7 1 8 4.5	5 711	* 10 <i>5,5</i>
# 11 # 12	# 13	# 14	# 15	¦# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)			ı	l .	!		!	!
# 11 # 12	1# 13	# 14	¦# 15	# 16 No. 8 C.P. C	# 17 Cable Used	# 18	# 19 No. 2 C.P. C	# 20 Cable Used
Total Circuit Resistan Volts //. 79	Amps 23.8	Ohms	.49	No. 6 C	(apre name)		NO. 2	apie Osea
70113	1	• 1 1	. 1					
Remarks: <i>Hol</i> e	must dru	Illed u	Hth_	must, s	Samp	let Stor	w suat	tex_
In he	n & 110'	I iln		Italload	11/1	20 11 D	VC New	•
10	ottom 280	<u> </u>	vateo	A	01 CD		1	1
		B 4074	4,00					
Rectifier Size:	18 3.50 125 6.10 -2- -6	1-402.5 2.4 294.5 294.5 4196. 209.6	GROUND BI	ED LAYOUT SKE		Som (	Signature)  #1	ed
		4400-V	per ve-			new a	- ruet	*14 **

726W

D. Crass DRILLING CO.

Drill No. 3

	DRILLER'S WELL LOG												
S. P. No.	S. P. No. Son Juan 28-5 463 Date 8-3-88												
Client Meridian Oil Co Prospect													
County_	20 F	Preiba State New Mex											
If hole is o	redrill or i	if moved from original staked position show distance											
and direct	ion moved	:											
FROM	TO	FORMATION — COLOR — HARDNESS											
0	10	SAND											
10	30	Shale											
30	65	SANdstore											
65	95	Shale											
95	115	SAND											
115	130	SANdstone											
130	200	Shple											
200	235	SANdstore											
235	275	Shale											
2 <b>7</b> 5	300	SAND											
300	355	Shale											
355	380	SANdstone											
380	400	Shale Brom Lime											
Mud.		Make											
Hock Bit I	Number	er @ 110'											
Remarks:	WAT	er & 110											
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	Dr	iller Pouvie Brown											

Received by OCD: 9/20/2023 12:25:17 PM

Page 109 of 181

14A-30.039-22205 54E-30-039-23813

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 20 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #14A, #54E
cps 1598w
Elevation 6637 Completion Date 7/13/81 Total Depth 425 Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types usedN/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A
Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 150' SAMPLE TAKEN
7
Depths gas encountered: HOLE MAKING GAS
Type & amount of coke breeze used: 3500 lbs.
Depths anodes placed: 395', 385', 375', 365', 350', 340', 280', 270', 210', 200'
Depths vent pipes placed: 420' DEGEIVE C
Vent pipe perforations: 280' MAY 3 1 1991
Remarks: gb #1 HOLE CAVED AFTER #8 ANODE COKED. OIL CON. DIV
DIST. 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.

Form 7-238 (Rev. 11-71)

### WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Hereto).			Co	ompletion Dat	e <u>/-13</u>	-81
5. J. 28-5 # 14 A SUE	NW-20	-28-5		CPS No. 159	8 W	
Type & Size Bit Used 6 3/4 Rock		2"x 60"	Duriron	Work Order 1 5 79 2	No. 03-21-57	7-20
Anode Hole Depth 425 Logge 4421  Total Drilling Rig Time	Total Lbs. Coke U		ulation Mat'l Us	ed No. Sacks M	fud Used	
# 1395 # 2385 # 3375 # 43	65 = 350	# 6 34D	= 7280	= 8270	# 9210	# 10 <b>20</b> C
# 1 3 . 0 # 2 2.8 # 3 3.4 # 4 3	.3   \$ 2.7	# 6 3. D	#-7-2.6	= 2.4	# 92.9	# 104.6
Anode Depth # 12 # 13 # 14	<b>≠</b> 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps) # 11  # 12  # 13	# 15	# 16 No. 8 C.P. Cat	  ≠ 17	‡ 18	# 19 No. 2 C.P. Ca	# 20
Total Circuit Resistance Volts 2.4 Amps 17.9 Oh	ms .69	No. 8 C.P. Car	ere Osed		100. 2 C.P. Ca	ble Used
Remarks: Static 9/5 6005 = .	85 1300mA	+ un	IIDN= OK			
Driller SAID WATER A	T 150 FT	Drille	1011	0F+ 7-	10-81 he	.Ft o pen
Over weekend CAught						125
Logged 421. Total v	upler app	rox 26	PM. GR	MAKIN	s bas.	INST.
420 VENTPIPE @280 PET	F. Holeca	rued AF	ter#8	Anode	cokedi	#9×10
Stuckinhole, Blew out	bridge	with A	air th	en Fin	vished	coking
Hole depth = 19,	•		$\alpha$	All Constru	ction Complete	. ·: ≥d
Extra cable=156 Ditch &cable=363				5/16	/.	г. У "—
Stub Pole	6-6-WID D-5-		Jam	N J Jan	gnature)	
40016A RECT	GROUND BED	LAYOUT SKEI	CH /	1	ر آن ا الله الله الله الله الله الله الله ال	
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1598W S.J. 28-5#14A NW20-28-5 57923-21-50-20

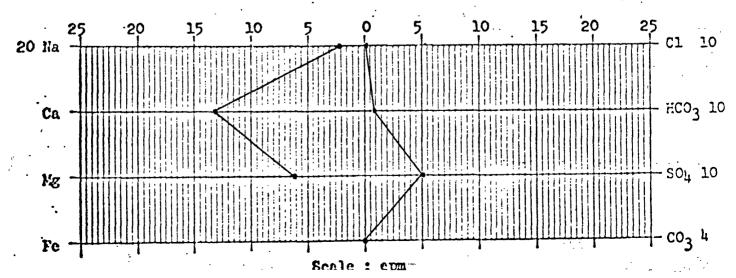
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100 21	1C7	17 2
100 21	C <sub>7</sub>	17 46
114 23	C8	19 39
28 05	C2 <sup>:</sup>	9 64
42 08	C3 <sup>:</sup>	9 67

3+AT	1 C G/Sho S = 185	1300m A	6N/ON = OK
150	10FT=.72	10 - 1	Driller Said WATER AT 150 FT Drilled
1 1 0	8	1,1	160 LEFT For weekend caught water
60	8 40	12-6	SAMPLE monday AM. Drilled to
	1.2	1.3	425FT WAIR +NATERING. Losged
70	1.7 50	1,2=5	421FT TOTAL WATER 2 GPM
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100	1.9	1,3-4	WITH 280 FT DONE
90	1.9 70	1.3	Hole cared Aftep#8
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# EL PASO NATURAL GAS COMPANY SAN JUAN DIVISION FARMINGTON, NEW MEXICO

PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-10271	Date 7-28-81	
Operator El Paso Natural Gas	Well Name S.J. 28-5 #14A	CPS 4598 W
Location NW 20-28-5	County Rio Arriba State Ne	w Mexico
Field Blanco	Formation_	
Sampled From 150 ft.		
Date Sampled 7-13-81	By Robert J. Babnick	
Tbg. Press Csg	Surface Csg. Press	
ppm         epm           Sodium         968         42.1	· ppm	epm 1.7
Calcium 262 13.1	Bicarbonate 539	8.8
Magnesium 74 6.1	Sulfate 2440	50.8
Iron Absent	Carbonate 0	_0
H <sub>2</sub> S Absent	Hydroxide 0	0
cc: R. A. Ullrich E. R. Paulek	Total Solids Dissolved 3,8	54
J: W. McCarthy	pH 7.5	
J. D. Evans W. B. Shropshire	Sp. Gr. 1.0054 At	60 o F
D. C. Adams File	Resistivity 211 ohm-cm a	t
	Debbie Devetalme	PZE.



Form 22-2 (Rev 5-79)

EL PASO NATURAL GAS COMPANY

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## DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

On and have MEDIDIAN OIL INC	7
Operator MERIDIAN OIL INC.	
Name of Well/Wells or Pipeline Service	ed SAN JUAN 28-5 UNIT #63E
	cps 1886w
Elevation6776' Completion Date 6/26/87	Total Depth 400' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts &	types usedN/A
	•
If Cement or Bentonite Plugs have been	n placed, show depths & amounts used
N/A	
Depths & thickness of water zones with Fresh, Clear, Salty, Sulphur, Etc	
Depths gas encountered: N/A	
Type & amount of coke breeze used:	N/A
Depths anodes placed: 350', 340', 330', 32	20', 310', 270', 255', 230', 220', 200'
Depths vent pipes placed: N/A	
Vent pipe perforations: 270'	BECEIAEU
Remarks: (gb #1)	MAY 3 1 1991.
	DIL CON. DIV.
	DIST. 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.

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### BURGE CORROSION SYSTEMS, INC.

005: 1886 CC

P.O. BOX 1359; PHONE 334-6141; AZTEC: NEW MEXICO 87410;

COMPANY	Meridian 011	DAILY DRILLING REPORT June 2
A THE THANK		WELLNUMBER - SECTION: TOWNSHIP: RANGE
	STATES AT COMMENT	FEET HOLE MADE
: 150°	#200 <b>5</b>	400' TD DESCRIPTION OF FORMATION
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REWARKS		
HEMARKS:		

Driate Confessor

756

22 - 30-039-07360 67-30-039-20026

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit SW Sec. 21 Twp 28 Rng 5
Name of Well/Wells or Pipeline Service	edSAN_JUAN_28-5_UNIT_#67, #22
	cps 1066w
Elevation 6654 Completion Date 10/6/76	_Total Depth 453' Land Type* N/A
Casing, Sizes, Types & Depths N/A	
If Casing is cemented, show amounts &	types usedN/A
If Cement or Bentonite Plugs have bee	n placed, show depths & amounts used
Depths & thickness of water zones wit Fresh, Clear, Salty, Sulphur, Etc.	h description of water when possible: 200'
Depths gas encountered: N/A	
Type & amount of coke breeze used:	45 SACKS
Depths anodes placed: 415', 350', 340',	305', 295', 260', 250', 240', 230', 220'
Depths vent pipes placed: N/A	n Borin.
Vent pipe perforations: 269'	Werelbeu
Remarks: gb #1	MAY31/1991
	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.

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

A 18 1 . . .

# WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

LOGGED Completion Date <u>10</u>-6-76

Drilling Log (Attach Hereto).

Well Name	28-5	#67 \$ 4	/22 5	w 21	28-5		CPS No.	166W	1
Гуре & Sıze	Bit Used	14					Work Order		3215
Alode Hole	Depth 3	Total Drilling R	g Time To	otal Lbs./Coke/J	sed Lost Cire	culation Mat'l Us	sed No. Sacks N		
Anode Oepth # 1 <b>4/5</b>	# 2 <b>35</b>	0 #3340	# 4305	# 5 <b>295</b>	# 6260	# 7 250	# 8 <b>Z</b> 40	# 9 <b>Z30</b>	# 10226
Anode Sutput	# 23. 8	<b>3.4</b>	# 43.9	# 54.4	# 63.3	# 7 <b>3.9</b>	* 8 4.8	#94.6	# 10 <b>4</b> /C
Anode Depth	1	1		1	1	1		- <del> </del>	1
<i>‡</i> 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Outpu	t (Amps)								1
<i>‡</i> 11	# 12	# 13	# 14	# 15	# 16	# 17	<b>#</b> 18	# 19	¦# 20
Total Circui	t Resistance	Amps 18.2	Ohms	1.64	No. 8 C.P. Ca	ble Used		No. 2 C.P. Ca	ble Used

Remarks; Dr. 11c1 Sa, & Blew Myd out af 140 - Blew water out ot 200. Startinjection - Drill to 460'

Vent Perforated 269' Slurry 45 Sacks Cokes

\$ 2,248.50 nstruction Completed 494.40 DEPTh 170.00 Anode 132.00 Anode LEAD WITE 194.50 RECT #67 GROUND BED LAYOUT SKETCH 3,239.40 129.57 TAX 213, 40 Insp. 50, 00 Misc. 3,632,37 Rect. Tr. 4 400p. ginal & 1 Copy All Reports

Page 111 of 181
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Date: \_\_\_\_\_
By: \_\_\_\_\_
File: \_\_\_\_\_

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44.10	Сз	10.42
58.12	iC4	12.38
58.12	nC4	11.93
72.15	ıC5	13.85
72.15	nC5	13.71
86 18	iC6	15.50
86.18	C <sub>6</sub>	15.57
100.21	iC7	-17.2
100.21	C7	17.46
114.23	Cg	19.39
28.05	C2	9 64
42.08	C3 <sup>:</sup>	9.67

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DAILY DRILLING REPORT

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30-039-23815

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Operator	MERIDIAN OIL INC.	Location:	Unit_NW_Sec21	Twp28 Rng 5
Name of Wel	ll/Wells or Pipeline	Serviced SAN	JUAN 28-5 UNIT #	76M
				cps 1888w
Elevation <u>66</u>	07' Completion Date_	6/23/87 Total De	pth 400' Land	Type* N/A
Casing, Siz	zes, Types & Depths_	N/A		
If Casing i	is cemented, show am	ounts & types us	edN/A	
	or Bentonite Plugs h /A	ave been placed,	show depths &	amounts used
	nickness of water zo ar, Salty, Sulphur,		tion of water	when possible:
Depths gas	encountered:	N/A		
Type & amou	ınt of coke breeze u	sed: 4650 11	os.	
Depths anod	des placed: 340', 250',	210', 200', 190',	180', 170', 130',	,120', 110'
Depths vent	pipes placed:	385'		
Vent pipe p	perforations:	320'	FARIABL	
Remarks: <u>(g</u>	b #1		MAY31'1991	
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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.

## CATHODIC PROTECTION CONSTRUCTION REPORT

Completion Date 196/2016

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# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

Opėrato:	rMERIDIAN OIL	Location: Unit NE Sec. 21 Twp 28 Rng 5
Name of	Well/Wells or Pipeline S	erviced SAN JUAN 28-5 UNIT #8, #76
		cps 1124w
Elevation	on <u>6636'</u> Completion Date 10/	77/77 Total Depth 400' Land Type* N/A
Casing,	Sizes, Types & Depths	N/A
If Casi	ng is cemented, show amou	nts & types used <u>N/A</u>
	N/A	e been placed, show depths & amounts used
Depths &	thickness of water zone	MAY 31 1991.
Depths o	gas encountered: N/A	OIL CON. DIV.)
Type & a	amount of coke breeze used	d: 50 SACKS
Depths a	anodes placed: <u>365', 355', 3</u> 0	05', 295', 285', 275', 265', 240', 230', 220'
Depths v	vent pipes placed: 380	O' OF 1" PVC VENT PIPE
Vent pip	pe perforations: 280	)' \
Remarks:	gb #1	

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.

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

→Form 7-238 (Rev. 11-71)

# WELL CASING

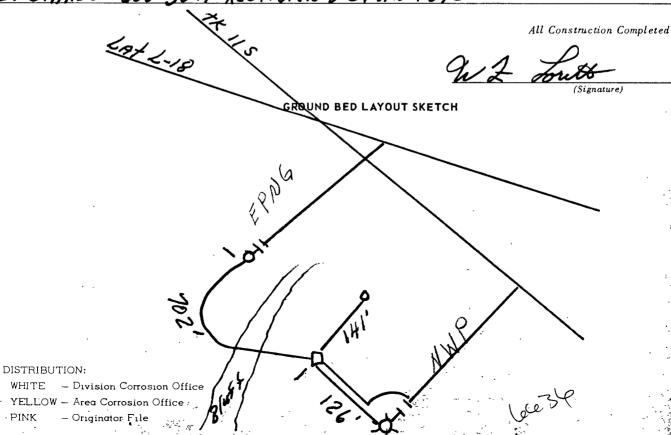
CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

Drilling Log (Attach Hereto).

Completion Date 10-7-77

Well Name San Jua	m. 28-5	とかけまる	6 A	cation 1 E 21 - 28	- ج		CPS No.	24W	
Type & Size E	6 3/4			_			Work Orde	er No.#85 58 # 76 = 54	
Anode Hole D	epth <b>400</b> 3 <b>8</b> 9	Total Drilling Ri	g Time	Total Lbs. Coke U <b>50</b>	sed Lost Cire	culation Mat'i Us	sed No. Sacks	s Mud Used	
Anode Depth # 1 365	# 2 <b>355</b>	# 3 <b>305</b>	# 4295	# 5 <b>2 85</b>	= 6 2 75	# 7 <b>265</b>	# 8 240	= 9 <b>230</b>	# 10 <b>22</b> C
Anode Output # 1 <b>3.0</b>		# 3 3./	# 4 <b>4.4</b>	# 5 <b>4 . 5</b>	#6 4./	]#-7- <b>4.0</b>	# 8 3.4	# 9 3. /	# 10 <b>3.2</b>
Anode Depth # 11	# 12	# 13	# 14	¦# 15	# 16	# 17	# 18	# 19	# 20
Anode Output # 11	(Amps)	# 13	  # 14	# 15	# 16	# 17	! ! ! ? 18	# 19	# 20 ·
Total Circuit	!	mps 15.9	Ohms	0.67	No. 8 C.P. Ca	ble Used		No. 2 C.P. C	able Used

Remarks: 5+A+ic #8 600' S.W. = 0.78, S+A+ic #76 600 W = 0.72 Installed 10-2"x2" x 48" GRAphite Anodes. DRiller SAIL MAKING WATER @ 180'. DRilled to 200' Next AM blew water. Perferated 28000: 1" PVC Vent Pipe. Installed 380 'of I"PVC Vent Pipe, Slurryed 50 SACKS OF COKE. # 76 MARKED INOTEL & #8 MARKEL 3 Notches. Installed 600 30 A Rectifier & Stub Pole



DISTRIBUTION:

# El Paso Natural Gas Company ENGINEERING CALCULATION

Pa	ige 119 of 181
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Date:	
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DRILLING DEPARTMENT

## DAILY DRILLING REPORT

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DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS

NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL	Location: Unit NE Sec. 22 Twp 28 Rng 5
Name of Well/Wells or Pipeline Servi	.cedSAN_JUAN_28-5_UNIT_#30_#87
	cps 1125w
Elevation 6684' Completion Date 10/5/77	Total Depth 240' Land Type* N/A
Casing, Sizes, Types & Depths	N/A
If Casing is cemented, show amounts	& types usedN/A
If Cement or Bentonite Plugs have be	en placed, show depths & amounts used
	th description of water when possible:
Depths gas encountered: N/A	
Type & amount of coke breeze used:	36 SACKS
Depths anodes placed: 210', 170', 140',	130', 120', 100', 90'
Depths vent pipes placed: 215'	megel v bu
Vent pipe perforations: 180'	MIN 31 1991.
Remarks: gb #2	- Committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the committee of the comm
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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.

WELL CASING

OTECTION CONSTRUCTION REPORT

Drilling Log (Attach Hereto).

Completion Date De75-197

*-	· []						/ /	
5.1, 28-5A	1-308#8		VE 22-2	28-5		CPS No.	25 W	
Type & Size Bit Used	3/4					Work Order <b>5354</b>	No. 45:19 & E	74986.
Anode Hole Depth	Total Drilling R	ig Time To	otal Lbs. Coke U	sed Lost Circ	culation Mat'l U	sed No. Sacks	Mud Used /	
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Anode Output (Amps)							1	1967
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# 11 # 12	# 13	<b>#</b> 14	# 15	# 16	# 17	# 18	# 19	# 20 "
Anode Output (Amps)	1	ı			1			1 1
# 11 # 12	# 13	l # 14	# 15	# 16	<b>≠</b> 17	<b>‡</b> 18	# 19	# 20
Total Circuit Resistance	61 . s			No. 8 C.P. Ca	ble Used		No. 2 C.P. Co	ible Used
Volts // 7	Amps: 17.3	Ohms	0.67					

Remarks: STATIC #30, 600 N=.70 # 87, 600 NE = 73 (JEAPHITE HNO DE DRILL TO 300 Log 290 - HOLE CAVED AFTER 3 ANODES PESPONDES PRICL NEW HOLE TO 240 LOG 233 - INSTACCE D TANADES Vent to HOLEHI TOZGO PERF. 200 - HOLEHZ TO ZIS PERFISO

DRILLER SAID WATER AT BO'EACH HOLE

JUNCTION BOX ON HOLE #1 SLURRY 56 COKCIN HOLE #

60-30 RECT. STUB POLE

All Construction Completed

GB

ANODES

WHITE - Division Corrosion, Office

YELLOW - Area Corrosion Office

Page	123 of	181
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MW	· OB	ils/mol
16,04	C <sub>1</sub>	6.4
30.07	C <sub>2</sub>	10.12
44.10	Сз	10.42
58.12	- iC4	12.38
58.12	nC4	11.93
72.15	iC5	13.85
72.15	nC5	13.71
86.18	ıC6	15.50
86.18	C6	15.57
100.21	ıC7	17.2
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114 23	Св	19.39
28.05	C2 <sup>2</sup>	9.64
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CO<sub>2</sub> 638

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# El Paso Natural Gas Company ENGINEERING CALCULATION

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Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY DRILLING DEPARTMENT

		)			REPORT
LEASE	WELL NO. 125 CON	CONTRACTOR POEY	DAYLIGHT Co. RIG NO.	KETOKT NO.	EVENING DATE OCT 5 19 1
Driller	Total Men In Crew		Total Men in Crew	Driller	Total Men In Crews 등을 보는
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				MAKING WATER	158 80
			110	Logged - 23	i i
				Total Depth - 236	236
i -	SIGN	SIGNED: Toolpusher		Company Supervisor \$	



30-039-23729

# DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO. (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit D Sec. 22 Twp 28 Rng 5
Name of Well/Wells or Pipeline Serviced SAN JUAN 28-5 UNIT #30A
cps 1883w
Elevation 6682' Completion Date 6/23/87 Total Depth 280' Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types usedN/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used N/A
Depths & thickness of water zones with description of water when possible:  Fresh, Clear, Salty, Sulphur, Etc. 50' SAMPLE TAKEN
Depths gas encountered: N/A
Type & amount of coke breeze used: N/A
Depths anodes placed: 225', 215', 205', 195', 185', 175', 160', 150', 140', 120'
Depths vent pipes placed: 273'
Vent pipe perforations: 240'
Remarks: <u>Gb.#1</u> MAY8171991
OIL CON. DIV
DIŞT, 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.

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

FM:07\_0238 (Rev. 10-82)

# CATHODIC PROTECTION CONSTRUCTION REPORT

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## BURG CORROSION SYSTEMS DE

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# BURGE CORROSION SYSTEMS, INC

CPS 1883 W

P.O. BOX:1359% PHONE:334-6141% AZTEC, NEW MEXICO 87410

			Y DRILLI <mark>NG REPOR</mark>	June 23	
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#### API WATER ANALYSIS REPORT FORM

Company Meridian	Oil Co.	Sample No.	Date Sampled
Field Gobernador	Legal Description - 5	Sunty or Pari	ish State
Lease or Unit	Well S. J. 28-5 #30A	Depth 50 Romation de	Water, B/D
Type of Water (Produced,	Supply, etc.)   Sampling Po	int B	Sampled By $\widehat{J}.\mathcal{E}$ .

#### DISSOLVED SOLIDS

CATIONS Sodium, Na (calc.) Calcium, Ca	mg/l 214	me/l 9.3
Magnesium, Mg Barium, Ba		<u> </u>

## OTHER PROPERTIES

pH Specific Gravity, 60/60 F. Resistivity (ohm-meters) 70° F.	9.34 1.0045 13.4
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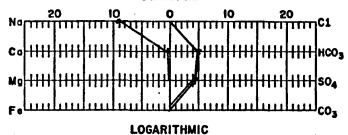
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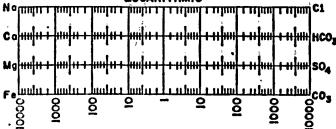
Chloride, Cl	0	
Sulfate, SO <sub>4</sub>	210	4.3
Carbonate, CO <sub>3</sub> Bicarbonate, HCO <sub>3</sub>	303	5.0
Hy Box de		
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Total Dissolved Solids (calc.) 729

Iron, Fe (total)
Sulfide, as H<sub>2</sub>S

## WATER PATTERNS — me/l STANDARD





REMARKS & RECOMMENDATIONS:



# **APPENDIX C**

Executed C-138 Solid Waste Acceptance Forms

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.

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401	III SOLID WASIE
2. Originating Site: SJ 28-5 #14	AFE: N66187 PM: Maron O'Brien Pay Key: RB21200
<ol> <li>Location of Material (Street Address, City, State or ULSTR): UL N Section 16 T28 R5W; 36.65679, -107.364700</li> </ol>	MAy 2023
4. Source and Description of Waste: Source: Hydrocarbon contaminated soil associated with remediation activities from Description: Hydrocarbon contaminated soil associated with remediation activities Estimated Volume 20 yd3 bbls Known Volume (to be entered by the operator at the source of the source) and the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the	om a natural gas pipeline release. s from a natural gas pipeline release.
5. GENERATOR CERTIFICATION STATEMENT O	F WASTE STATUS
I, Thomas Long , representative or authorized agent for Enterprise Products Of Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the regulatory determination, the above described waste is: (Check the appropriate classific	US Environmental Protection Agency's July 1988
RCRA Exempt: Oil field wastes generated from oil and gas exploration and prexempt waste. Operator Use Only: Waste Acceptance Frequency Monthly	
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not excharacteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed I subpart D, as amended. The following documentation is attached to demonstrate the appropriate items)	nazardous waste as defined in 40 CFR, part 261,
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge	ge
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STA	ATEMENT FOR LANDFARMS
I, Thomas Long 5-8-2023, representative for Enterprise Products Operating a Generator Signature the required testing/sign the Generator Waste Testing Certification.	uthorize to complete
I, Greg Crabben, representative for Envirotech, Inc.	do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test a have been found to conform to the specific requirements applicable to landfarms pursus of the representative samples are attached to demonstrate the above-described waste co 19.15.36 NMAC.	and tested for chloride content and that the samples ant to Section 15 of 19.15.36 NMAC. The results
5. Transporter: TBD	
	ENIED (Must Be Maintained As Permanent Record)
11. 1	MANAGE DATE: 5/11/23 NO.: 505-632-0615

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.

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401	CCEI I SOLID WASTE
2. Originating Site: SJ 28-5 #14	AFE: N66187 PM: Maron O'Brien Pay Key: RB21200
2. Location of Material (Street Address, City, State or ULSTR): UL N Section 16 T28 R5W; 36.65679, -107.364700	July / August 2023
4. Source and Description of Waste: Source: Hydrocarbon contaminated soil associated with remediation activit Description: Hydrocarbon contaminated soil associated with remediation ac Estimated Volume 20 yd3 bbls Known Volume (to be entered by the operation)	ies from a natural gas pipeline release. tivities from a natural gas pipeline release.
5. GENERATOR CERTIFICATION STATEME	NT OF WASTE STATUS
I, Thomas Long , representative or authorized agent for Enterprise Prod Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) a regulatory determination, the above described waste is: (Check the appropriate c	nd the US Environmental Protection Agency's July 1988
□ RCRA Exempt: Oil field wastes generated from oil and gas exploration exempt waste. Operator Use Only: Waste Acceptance Frequency □ M	
RCRA Non-Exempt: Oil field waste which is non-hazardous that does a characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or subpart D, as amended. The following documentation is attached to demons the appropriate items)	listed hazardous waste as defined in 40 CFR, part 261,
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Kr	nowledge
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION	N STATEMENT FOR LANDFARMS
I, Thomas Long 7-11-2023, representative for Enterprise Products Ope Generator Signature the required testing/sign the Generator Waste Testing Certification.	rating authorize to complete
I, <u>Gree Crab Free</u> , representative for <u>Envirotech</u> , representative samples of the oil field waste have been subjected to the paint filte have been found to conform to the specific requirements applicable to landfarms of the representative samples are attached to demonstrate the above-described was 19.15.36 NMAC.	er test and tested for chloride content and that the samples pursuant to Section 15 of 19.15.36 NMAC. The results
5. Transporter: TBD	
OCD Permitted Surface Waste Management Facility	
Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-00 Address of Facility: Hill Top, NM Method of Treatment and/or Disposal:  Evaporation Injection Treating Plant Lan Waste Acceptance Status:	
APPROVED	DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Greg Grabbree TITLE: Ex	nulvo Managen DATE: 7/11/23
SIGNATURE: TELEPH Surface Waste Management Facility Authorized Agent TELEPH	ONE NO.: <u>505-632-0615</u>



# APPENDIX D

Photographic Documentation

Closure Report Enterprise Field Services, LLC San Juan 28-5 #14 (07/10/23) Ensolum Project No. 05A1226239



## Photograph 1

Photograph Description: View of the inprocess excavation activities.



## Photograph 2

Photograph Description: View of the excavation.



## Photograph 3

Photograph Description: View of the site after initial restoration.





# **APPENDIX E**

Regulatory Correspondence

 From:
 Kyle Summers

 To:
 Chad D"Aponti

 Cc:
 Ranee Deechilly

Subject: FW: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD Incident

#nAPP2319233055

**Date:** Tuesday, August 8, 2023 1:15:54 PM

Attachments: image002.png image004.png

image005.png image006.png



## **Kyle Summers**

Principal 903-821-5603 Ensolum, LLC

From: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov>

**Sent:** Tuesday, August 8, 2023 1:15 PM **To:** Long, Thomas <tjlong@eprod.com>

Subject: Re: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

#### [ \*\*EXTERNAL EMAIL\*\*]

Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | <u>nelson.velez@emnrd.nm.gov</u>

http://www.emnrd.state.nm.us/OCD/\_



From: Long, Thomas <tilong@eprod.com>
Sent: Tuesday, August 8, 2023 12:53 PM

**To:** Velez, Nelson, EMNRD < <u>Nelson.Velez@emnrd.nm.gov</u>>

**Cc:** Stone, Brian < bmstone@eprod.com>; Kyle Summers < ksummers@ensolum.com>

Subject: FW: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

Nelson,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect soil samples for laboratory analysis tomorrow August 9, 2023 at 12:00 a.m. at the <u>SJ 28-5 #14</u> excavation. Please acknowledge acceptance of this variance request. 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)
tilong@eprod.com



From: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov >

**Sent:** Thursday, July 27, 2023 9:22 AM **To:** Long, Thomas < tilong@eprod.com>

**Cc:** Stone, Brian < bmstone@eprod.com >; Kyle Summers < ksummers@ensolum.com >

**Subject:** Re: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

[Use caution with links/attachments]

Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | <u>nelson.velez@emnrd.nm.gov</u>

http://www.emnrd.state.nm.us/OCD/



From: Long, Thomas <tilong@eprod.com>
Sent: Thursday, July 27, 2023 9:10 AM

**To:** Velez, Nelson, EMNRD < <u>Nelson.Velez@emnrd.nm.gov</u>>

**Cc:** Stone, Brian < bmstone@eprod.com>; Kyle Summers < ksummers@ensolum.com>

**Subject:** FW: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD Incident #nAPP2319233055

Nelson,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect soil samples for laboratory analysis tomorrow July 28, 2023 at 12:00 p.m. at the <u>SJ 28-5 #14</u> excavation. Please acknowledge acceptance of this variance request. 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: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov >

**Sent:** Tuesday, July 25, 2023 10:54 AM **To:** Long, Thomas < tilong@eprod.com>

**Cc:** Stone, Brian < bmstone@eprod.com >; Kyle Summers < ksummers@ensolum.com >; Landon

Daniell < <a href="mailto:ldaniell@ensolum.com">ldaniell@ensolum.com</a>>

Subject: Re: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

### [Use caution with links/attachments]

Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report

submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | nelson.velez@emnrd.nm.gov

http://www.emnrd.state.nm.us/OCD/



From: Long, Thomas <tilong@eprod.com>
Sent: Tuesday, July 25, 2023 10:51 AM

**To:** Velez, Nelson, EMNRD < <u>Nelson.Velez@emnrd.nm.gov</u>>

**Cc:** Stone, Brian < bmstone@eprod.com>; Kyle Summers < ksummers@ensolum.com>; Landon

Daniell < <a href="mailto:ldaniell@ensolum.com">ldaniell@ensolum.com</a>>

Subject: FW: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

Nelson,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect soil samples for laboratory analysis tomorrow July 26, 2023 at 10:00 a.m. at the SJ 28-5 #14 excavation. Please acknowledge acceptance of this variance request. 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)
tilong@eprod.com



From: Long, Thomas

Sent: Monday, July 24, 2023 2:57 PM

To: 'Velez, Nelson, EMNRD' < Nelson. Velez@emnrd.nm.gov >

**Cc:** Stone, Brian < bmstone@eprod.com >; Kyle Summers < ksummers@ensolum.com >

**Subject:** RE: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

Nelson,

This email is a notification that Enterprise had a small flash fire at the SJ 28-5 #14 excavation while performing remediation activities. **No one was injured**. No emergency services responded. The fire was extinguished utilizing hand help fire extinguishers. I will submit a new C-141 for this event. Please let me know if you have any questions, or concerns.

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



From: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov >

**Sent:** Monday, July 24, 2023 8:07 AM **To:** Long, Thomas < tilong@eprod.com>

Cc: Stone, Brian < bmstone@eprod.com >; Kyle Summers < ksummers@ensolum.com >

Subject: Re: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

[Use caution with links/attachments]

Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per

19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | <u>nelson.velez@emnrd.nm.gov</u>

http://www.emnrd.state.nm.us/OCD/



From: Long, Thomas <tilong@eprod.com>
Sent: Monday, July 24, 2023 8:04 AM

**To:** Velez, Nelson, EMNRD < <u>Nelson.Velez@emnrd.nm.gov</u>>

**Cc:** Stone, Brian < bmstone@eprod.com>; Kyle Summers < ksummers@ensolum.com>

**Subject:** FW: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

Nelson,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect soil samples for laboratory analysis today July 24, 2023 at 2:00 p.m. at the SJ 28-5 #14 excavation. Please acknowledge acceptance of this variance request. 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) tilong@eprod.com



From: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov >

**Sent:** Monday, July 17, 2023 7:56 AM **To:** Long, Thomas <<u>tilong@eprod.com</u>> **Cc:** Stone, Brian <<u>bmstone@eprod.com</u>>

**Subject:** Re: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

#### [Use caution with links/attachments]

Good morning Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | <u>nelson.velez@emnrd.nm.gov</u>

http://www.emnrd.state.nm.us/OCD/\_



From: Long, Thomas <tilong@eprod.com>
Sent: Monday, July 17, 2023 7:46 AM

**To:** Velez, Nelson, EMNRD < <u>Nelson.Velez@emnrd.nm.gov</u>>

**Cc:** Stone, Brian < bmstone@eprod.com>

Subject: [EXTERNAL] SJ 28-5 #14 - UL N Section 16 T28 R5W; 36.65679, -107.364700; NMOCD

Incident #nAPP2319233055

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Nelson,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect soil samples for laboratory analysis today July 17, 2023 at 1:00 p.m. at the SJ 28-5 #14 excavation. Please acknowledge acceptance of this variance request. 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)
tilong@eprod.com



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 F**

Table 1 – Soil Analytical Summary

**ENSOLUM** 

# TABLE 1 San Juan 28-5 #14 (07/10/23) SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX <sup>1</sup> (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO) <sup>1</sup> (mg/kg)	Chloride (mg/kg)
	Depa onservation Div	ieral & Natural I rtment rision Closure ( ier I)		10	NE	NE	NE	50	NE	NE	NE	100	600
			Com	posite Soil San	nples Removed	by Excavation	and Transport	ed to the Landf	arm for Dispos	al/Remediation			
S-1	07.17.23	С	7	1.0	28	2.0	27	58	690	18	<49	710	<60
S-5	07.17.23	С	0 to 7	<0.23	25	4.0	54	83	1,000	26	<48	1,000	<60
						Excavation Co	omposite Soil	Samples					
S-1a	07.28.23	С	7.5	<0.021	<0.043	<0.043	<0.085	ND	<4.3	<9.5	<48	ND	<61
S-2	07.17.23	С	0 to 7	<0.021	<0.042	<0.042	<0.085	ND	<4.2	<9.7	<49	ND	<60
S-3	07.17.23	С	0 to 7	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.3	<46	ND	<60
S-4	07.17.23	С	0 to 7	<0.020	<0.041	<0.041	<0.081	ND	<4.1	<9.5	<47	ND	94
S-5a	08.09.23	С	0 to 7.5	<0.020	<0.039	<0.039	<0.079	ND	<3.9	<9.3	<47	ND	<61

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

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NA = Not Analyzed

NE = Not established

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

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



# **APPENDIX G**

Laboratory Data Sheets & Chain of Custody Documentation



Website: www.hallenvironmental.com

Hall Environmental Analysis Laboratory

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

4901 Hawkins NE

Albuquerque, NM 87109

July 24, 2023

**Kyle Summers** 

**ENSOLUM** 

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: SJ 28 5 14 OrderNo.: 2307755

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 7/18/2023 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 Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 2307755

Date Reported: 7/24/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-1

**Project:** SJ 28 5 14 **Collection Date:** 7/17/2023 1:00:00 PM

**Lab ID:** 2307755-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/18/2023 6:20:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: CAS
Chloride	ND	60	mg/Kg	20	7/18/2023 11:10:50 AM	76284
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: DGH
Diesel Range Organics (DRO)	18	9.7	mg/Kg	1	7/18/2023 10:08:49 AM	76278
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/18/2023 10:08:49 AM	76278
Surr: DNOP	83.4	69-147	%Rec	1	7/18/2023 10:08:49 AM	76278
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: JJP
Gasoline Range Organics (GRO)	690	39	mg/Kg	10	7/18/2023 1:09:56 PM	GS98285
Surr: BFB	168	15-244	%Rec	10	7/18/2023 1:09:56 PM	GS98285
EPA METHOD 8021B: VOLATILES					Analyst	: JJP
Benzene	1.0	0.20	mg/Kg	10	7/18/2023 1:09:56 PM	R98285
Toluene	28	0.39	mg/Kg	10	7/18/2023 1:09:56 PM	R98285
Ethylbenzene	2.0	0.39	mg/Kg	10	7/18/2023 1:09:56 PM	R98285
Xylenes, Total	27	0.79	mg/Kg	10	7/18/2023 1:09:56 PM	R98285
Surr: 4-Bromofluorobenzene	101	39.1-146	%Rec	10	7/18/2023 1:09:56 PM	R98285

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 10

Lab Order 2307755

Date Reported: 7/24/2023

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-2

 Project:
 SJ 28 5 14
 Collection Date: 7/17/2023 1:05:00 PM

 Lab ID:
 2307755-002
 Matrix: MEOH (SOIL)
 Received Date: 7/18/2023 6:20:00 AM

Result **RL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride ND 60 mg/Kg 7/18/2023 11:23:15 AM 76284 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 9.7 mg/Kg 7/18/2023 10:32:35 AM Motor Oil Range Organics (MRO) ND mg/Kg 1 7/18/2023 10:32:35 AM 76278 49 Surr: DNOP 83.1 69-147 %Rec 7/18/2023 10:32:35 AM 76278 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 7/18/2023 11:58:41 AM GS98285 4.2 mg/Kg Surr: BFB 93.2 7/18/2023 11:58:41 AM GS98285 15-244 %Rec **EPA METHOD 8021B: VOLATILES** Analyst: JJP ND 0.021 7/18/2023 11:58:41 AM Benzene mg/Kg R98285 Toluene ND 0.042 mg/Kg 7/18/2023 11:58:41 AM R98285 Ethylbenzene ND 0.042 mg/Kg 1 7/18/2023 11:58:41 AM R98285 Xylenes, Total ND 0.085 mg/Kg 7/18/2023 11:58:41 AM R98285 Surr: 4-Bromofluorobenzene 95.5 39.1-146 %Rec 7/18/2023 11:58:41 AM R98285

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 10

Lab Order 2307755

Date Reported: 7/24/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-3

 Project:
 SJ 28 5 14
 Collection Date: 7/17/2023 1:10:00 PM

 Lab ID:
 2307755-003
 Matrix: MEOH (SOIL)
 Received Date: 7/18/2023 6:20:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	7/18/2023 11:35:40 AM	76284
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	DGH
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	7/18/2023 10:56:20 AM	76278
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/18/2023 10:56:20 AM	76278
Surr: DNOP	83.2	69-147	%Rec	1	7/18/2023 10:56:20 AM	76278
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: JJP
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	7/18/2023 12:22:22 PM	GS98285
Surr: BFB	92.0	15-244	%Rec	1	7/18/2023 12:22:22 PM	GS98285
EPA METHOD 8021B: VOLATILES					Analyst	: JJP
Benzene	ND	0.020	mg/Kg	1	7/18/2023 12:22:22 PM	R98285
Toluene	ND	0.040	mg/Kg	1	7/18/2023 12:22:22 PM	R98285
Ethylbenzene	ND	0.040	mg/Kg	1	7/18/2023 12:22:22 PM	R98285
Xylenes, Total	ND	0.080	mg/Kg	1	7/18/2023 12:22:22 PM	R98285
Surr: 4-Bromofluorobenzene	94.9	39.1-146	%Rec	1	7/18/2023 12:22:22 PM	R98285

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 10

Lab Order 2307755

Date Reported: 7/24/2023

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-4

 Project:
 SJ 28 5 14
 Collection Date: 7/17/2023 1:15:00 PM

 Lab ID:
 2307755-004
 Matrix: MEOH (SOIL)
 Received Date: 7/18/2023 6:20:00 AM

Lab ID: 2307755-004 Matrix: MEOH (SOIL) Received Date: 7/18/2023 6:20:00 AM

Analyses Result RL Qual Units DF Date Analyzed Ba

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	94	60	mg/Kg	20	7/18/2023 11:48:04 AM	76284
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	DGH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	7/18/2023 11:20:09 AM	76278
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	7/18/2023 11:20:09 AM	76278
Surr: DNOP	84.6	69-147	%Rec	1	7/18/2023 11:20:09 AM	76278
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: JJP
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	7/18/2023 12:46:09 PM	GS98285
Surr: BFB	92.6	15-244	%Rec	1	7/18/2023 12:46:09 PM	GS98285
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: JJP
Benzene	ND	0.020	mg/Kg	1	7/18/2023 12:46:09 PM	R98285
Toluene	ND	0.041	mg/Kg	1	7/18/2023 12:46:09 PM	R98285
Ethylbenzene	ND	0.041	mg/Kg	1	7/18/2023 12:46:09 PM	R98285
Xylenes, Total	ND	0.081	mg/Kg	1	7/18/2023 12:46:09 PM	R98285
Surr: 4-Bromofluorobenzene	95.8	39.1-146	%Rec	1	7/18/2023 12:46:09 PM	R98285

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 10

Lab Order 2307755

Date Reported: 7/24/2023

7/18/2023 1:33:45 PM

R98285

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT: ENSOLUM** Client Sample ID: S-5

**Project:** SJ 28 5 14 Collection Date: 7/17/2023 1:20:00 PM Lab ID: 2307755-005 Matrix: MEOH (SOIL) Received Date: 7/18/2023 6:20:00 AM

Result **RL Oual Units DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride ND 60 mg/Kg 7/18/2023 12:00:29 PM 76284 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 9.6 mg/Kg 7/18/2023 11:44:04 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/18/2023 11:44:04 AM 76278 Surr: DNOP 76278 81.7 69-147 %Rec 7/18/2023 11:44:04 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP 7/18/2023 1:33:45 PM Gasoline Range Organics (GRO) 1000 GS98285 47 mg/Kg 10 Surr: BFB 300 15-244 S 7/18/2023 1:33:45 PM GS98285 %Rec **EPA METHOD 8021B: VOLATILES** Analyst: JJP ND mg/Kg 7/18/2023 1:33:45 PM R98285 Benzene 0.23 10 Toluene 25 0.47 mg/Kg 7/18/2023 1:33:45 PM R98285 Ethylbenzene 4.0 0.47 mg/Kg 7/18/2023 1:33:45 PM R98285 Xylenes, Total 54 0.93 mg/Kg 7/18/2023 1:33:45 PM R98285 109 Surr: 4-Bromofluorobenzene

39.1-146

%Rec

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
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Page 5 of 10

### Hall Environmental Analysis Laboratory, Inc.

2307755 24-Jul-23

WO#:

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: MB-76284 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 76284 RunNo: 98289

Prep Date: 7/18/2023 Analysis Date: 7/18/2023 SeqNo: 3578639 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-76284 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 76284 RunNo: 98289

Prep Date: 7/18/2023 Analysis Date: 7/18/2023 SeqNo: 3578640 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.4 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 Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 10

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2307755** 

24-Jul-23

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: 2307755-001AMS	SampType: M	s	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID: S-1	Batch ID: 76	278	F	RunNo: <b>98</b>	3287				
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023	9	SeqNo: 35	577029	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48 9.6		17.89	63.0	54.2	135			
Surr: DNOP	4.1	4.798		86.0	69	147			
Sample ID: <b>MB-76278</b>	SampType: <b>M</b>	BLK	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch ID: 76	278	F	RunNo: <b>98</b>	3287				
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023	9	SeqNo: 35	577030	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10								
Motor Oil Range Organics (MRO) Surr: DNOP	ND 50			04.4	60	4.47			
Suil. DINOP	8.4	10.00		84.4	69	147			
Sample ID: LCS-76278	SampType: <b>L</b> (	cs				8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID: 76	278	F	RunNo: 98	3287				
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023	5	SeqNo: 35	577031	Units: mg/K	g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43 10		0	85.9	61.9	130			
Surr: DNOP	4.1	5.000		82.3	69	147			
Sample ID: <b>MB-76296</b>	SampType: M	BLK	Tes	tCode: EF	'A Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch ID: 76	296	F	RunNo: 98	3287				
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023	5	SeqNo: 35	577902	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4	10.00		84.2	69	147			
Sample ID: LCS-76296	SampType: <b>L</b> (	cs	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID: 76	296	F	RunNo: 98	3287				
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023	S	SeqNo: 35	577903	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1	5.000		81.3	69	147			
Sample ID: 2307755-001AMSE	SampType: M	SD	Tes	tCode: <b>EF</b>	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: S-1	Batch ID: 76	278		RunNo: <b>98</b>			3	-	
Prep Date: 7/18/2023	Analysis Date: 7	/18/2023		SeqNo: 35		Units: mg/K	g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
		J Value	J						
Diesel Range Organics (DRO)	47 9.7	48.73	17.89	60.6	54.2	135	1.44	29.2	

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 10

### Hall Environmental Analysis Laboratory, Inc.

4.2

2307755 24-Jul-23

WO#:

0

Client: ENSOLUM
Project: SJ 28 5 14

Surr: DNOP

Sample ID: 2307755-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **S-1** Batch ID: **76278** RunNo: **98287** 

Prep Date: 7/18/2023 Analysis Date: 7/18/2023 SeqNo: 3577999 Units: mg/Kg

4.873

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

85.3

69

147

0

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 8 of 10

## Hall Environmental Analysis Laboratory, Inc.

Batch ID: GS98285

SPK value SPK Ref Val

689.5

197.3

7893

Analysis Date: 7/18/2023

860

23000

PQL

39

WO#: 2307755 24-Jul-23

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: 2.5ug gro lcs	SampTy	pe: LCS	<del></del>	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID: LCSS	Batch	ID: GS9	98285	F	RunNo: 98	3285				
Prep Date:	Analysis Da	ate: 7/1	8/2023	5	SeqNo: 3	576898	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.0	70	130			
Surr: BFB	1900		1000		191	15	244			
Sample ID: mb	SampTy	pe: MBL	LK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID: PBS	Batch	ID: GS9	98285	F	RunNo: 98	3285				
Prep Date:	Analysis Da	ate: <b>7/1</b>	8/2023	Ş	SeqNo: 3	576899	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	15	244			
Sample ID: 2307755-001ams	SampTy	pe: <b>MS</b>		Tes	tCode: <b>EF</b>	PA Method	8015D: Gaso	line Range		
Client ID: S-1	Batch	ID: GS9	98285	F	RunNo: <b>98</b>	3285				
Prep Date:	Analysis Da	ate: <b>7/1</b>	8/2023	5	SeqNo: 3	577210	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	870	39	197.3	689.5	91.1	70	130			
Surr: BFB	22000		7893		284	15	244			S
Sample ID: 2307755-001amsd	SampTy	pe: MSI	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	·	

#### Qualifiers:

Client ID:

Prep Date:

Surr: BFB

S-1

Gasoline Range Organics (GRO)

- 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
- B Analyte detected in the associated Method Blank

RunNo: 98285

%REC

85.6

296

SeqNo: 3577325

LowLimit

70

15

Units: mg/Kg

130

244

%RPD

1.26

**RPDLimit** 

20

0

Qual

S

HighLimit

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 9 of 10

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2307755** 

24-Jul-23

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: 100ng btex lcs	Samp	Гуре: <b>LC</b> :	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Batcl	h ID: <b>R9</b> 8	8285	F	RunNo: 98	3285				
Prep Date:	Analysis [	Date: <b>7/</b>	18/2023	(	SeqNo: 3	576901	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.6	70	130			
Toluene	0.97	0.050	1.000	0	97.4	70	130			
Ethylbenzene	0.96	0.050	1.000	0	96.4	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.8	70	130			
Surr: 4-Bromofluorobenzene	0.93		1.000		92.5	39.1	146			

Sample ID: mb	Samp	уре: <b>МЕ</b>	BLK	Tes	tCode: Ef	PA Method	8021B: Volati	les		
Client ID: PBS	Batcl	n ID: <b>R9</b>	8285	F	RunNo: 98	3285				
Prep Date:	Analysis [	Date: <b>7/</b>	18/2023	5	SeqNo: 3	576902	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	39.1	146			

Sample ID: 2307755-002ams	Samp	Гуре: МЅ	3	Tes	tCode: EF	PA Method	8021B: Volati	les		•
Client ID: S-2	Batcl	h ID: <b>R9</b>	8285	F	RunNo: 98	3285				
Prep Date:	Analysis [	Date: <b>7/</b>	18/2023	9	SeqNo: 3	577326	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.021	0.8496	0	93.4	70	130			
Toluene	0.81	0.042	0.8496	0	95.6	70	130			
Ethylbenzene	0.81	0.042	0.8496	0	95.5	70	130			
Xylenes, Total	2.5	0.085	2.549	0.01767	96.6	70	130			
Surr: 4-Bromofluorobenzene	0.86		0.8496		101	39.1	146			

Sample ID: 2307755-002amsd	SampT	ype: MS	D	Tes	tCode: <b>EF</b>	PA Method	8021B: Volati	iles		
Client ID: S-2	Batch	n ID: <b>R9</b> 8	3285	F	RunNo: 98	3285				
Prep Date:	Analysis D	ate: <b>7/</b> 1	18/2023	8	SeqNo: 3	577327	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.021	0.8496	0	92.8	70	130	0.666	20	
Toluene	0.81	0.042	0.8496	0	95.1	70	130	0.482	20	
Ethylbenzene	0.81	0.042	0.8496	0	95.2	70	130	0.367	20	
Xylenes, Total	2.5	0.085	2.549	0.01767	96.7	70	130	0.0582	20	
Surr: 4-Bromofluorobenzene	0.86		0.8496		101	39.1	146	0	0	

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 10 of 10



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Released to Imaging: 1/19/2024 7:30:45 AM

Client Name: ENSOLU	JM	Work Order Number	2307755		RcptNo: 1	
Received By: Tracy C	asarrubias	7/18/2023 6:20:00 AM				
Completed By: Tracy C	asarrubias	7/18/2023 6:52:25 AM				
Reviewed By: 5Cm	i (	3				
Chain of Custody						
1. Is Chain of Custody co	mplete?		Yes 🗌	No 🗹	Not Present	
2. How was the sample d	elivered?		Courier			
Log In 3. Was an attempt made	to cool the samples'	>	Yes 🗹	No 🗌	na 🗆	
4. Were all samples receive	ved at a temperature	e of >0° C to 6.0°C	Yes 🔽	No 🗌	na 🗆	
5. Sample(s) in proper co	ntainer(s)?		Yes 🗹	No 🗌		
6. Sufficient sample volum	ne for indicated test(	s)?	Yes 🗹	No 🗌		
7. Are samples (except VC	DA and ONG) prope	rly preserved?	Yes 🗹	No 🗌		
8. Was preservative adde	d to bottles?		Yes $\square$	No 🗹	NA 🗌	
9. Received at least 1 vial	with headspace <1/	4" for AQ VOA?	Yes 🗌	No 🗌	NA 🗹	
10. Were any sample conta	ainers received brok	en?	Yes 🗌	No 🗹	# of preserved	
11. Does paperwork match (Note discrepancies on			Yes 🗹	No 🗆		12 unless noted)
12. Are matrices correctly in	dentified on Chain o	f Custody?	Yes 🔽	No 🗌	Adjusted?	
13. Is it clear what analyses	were requested?		Yes 🔽	No 🗌	A	71.00%
<ol> <li>Were all holding times : (If no, notify customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the customer for the custome</li></ol>			Yes 🗹	No 🗌	Checked by:	~+1181
Special Handling (if a	applicable)					
15. Was client notified of a	II discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Management (	Date:	A			
By Whom:	No.	Via:	eMail	Phone Fax	In Person	
Regarding:	1000					
Client Instruction	s: Phone number	and Email/Fax are missin	on COC - 1	MC 7/18/23	The sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the sales of the s	
16. Additional remarks:						
17. Cooler Information						

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	003		1/7 1310 5 5-3	1/2
	002		17 1305 3 5-2	1/2
	Cold 001	1402	17 1300 S S-1	11/
8081 EDB PAH: RCR CI, 8260 8270		Container Type and #	ate Time Matrix Sample Name	Date
Pestin (Methods by 8 A 8 Methods), Perturbation (VOA) (Semi-	2-02 S.2 (°C)	Cooler Tem		
cide aod 310 eta NO	-	# of Coolers:	EDD (Type)	
95/8 504 0 or ls 9, N		On Ice:		
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S 3 4	21)	Project Manager:	email or Fax#:	ema
Analysis Request			Phone #:	Pho
Tel. 505-345-3975 Fax 505-345-4107		Project #:	Suit A 874/10	
4901 Hawkins NE - Albuquerque, NM 87109	J128-5 414	sale S	Mailing Address: & & S & S & C	Mail
www.hallenvironmental.com	ē:	Project Name:		
ANALYSIS LABORATORY	d PRush 7-18-23	☐ Standard	lient: Ensolver UC	Client:
HALL ENVIRONMENTAL	Time: //www	Turn-Around Time:	Chain-of-Custody Record	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

August 04, 2023

Kyle Summers

**ENSOLUM** 

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: SJ 28 5 14 OrderNo.: 2307E46

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/29/2023 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 Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Surr: 4-Bromofluorobenzene

# Analytical Report Lab Order 2307E46

Date Reported: 8/4/2023

7/31/2023 1:38:34 PM

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-1a

 Project:
 SJ 28 5 14
 Collection Date: 7/28/2023 12:00:00 PM

 Lab ID:
 2307E46-001
 Matrix: MEOH (SOIL)
 Received Date: 7/29/2023 7:05:00 AM

Result **RL Oual Units DF** Date Analyzed Batch Analyses **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride ND 61 mg/Kg 7/31/2023 1:56:36 PM 76564 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 9.5 mg/Kg 7/29/2023 3:02:20 PM 76555 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 7/29/2023 3:02:20 PM 76555 Surr: DNOP 76555 102 69-147 %Rec 7/29/2023 3:02:20 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 7/31/2023 1:38:34 PM GS98601 4.3 mg/Kg Surr: BFB 95.4 %Rec 7/31/2023 1:38:34 PM GS98601 15-244 **EPA METHOD 8021B: VOLATILES** Analyst: JJP ND 0.021 7/31/2023 1:38:34 PM BS98601 Benzene mg/Kg Toluene ND 0.043 mg/Kg 7/31/2023 1:38:34 PM BS98601 Ethylbenzene ND 0.043 mg/Kg 1 7/31/2023 1:38:34 PM BS98601 Xylenes, Total ND 0.085 mg/Kg 7/31/2023 1:38:34 PM BS98601

110

39.1-146

%Rec

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 5

BS98601

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2307E46 04-Aug-23** 

Client: ENSOLUM
Project: SJ 28 5 14

Sample ID: MB-76564 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 76564 RunNo: 98608

Prep Date: 7/31/2023 Analysis Date: 7/31/2023 SeqNo: 3592134 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-76564 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 76564 RunNo: 98608

Prep Date: 7/31/2023 Analysis Date: 7/31/2023 SeqNo: 3592135 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 91.1 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 standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 5

## Hall Environmental Analysis Laboratory, Inc.

11

WO#: **2307E46** *04-Aug-23* 

Client: ENSOLUM Project: SJ 28 5 14

Surr: DNOP

Sample ID: LCS-76555	SampT	ype: LC	s	Tes	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch	ID: <b>765</b>	555	RunNo: <b>98594</b>							
Prep Date: 7/29/2023	Analysis Date: 7/29/2023			SeqNo: <b>3590225</b>			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	53	10	50.00	0	107	61.9	130				
Surr: DNOP	5.1		5.000		103	69	147				

Sample ID: MB-76555	SampT	ype: <b>ME</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch	ID: <b>76</b>	555	F	RunNo: 98	3594				
Prep Date: 7/29/2023	Analysis D	ate: <b>7/</b> 2	29/2023	5	SeqNo: 3	590227	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								

111

147

10.00

#### 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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2307E46** 

04-Aug-23

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: 2.5ug gro lcs	SampType: <b>L</b>	cs	Tes	tCode: <b>EF</b>	A Method	8015D: Gasoli	ne Range		
Client ID: LCSS	Batch ID: G	S98601	F	RunNo: <b>98</b>	8601				
Prep Date:	Analysis Date:	7/31/2023	5	SeqNo: 35	90782	Units: mg/Kg	9		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22 5.0	25.00	0	89.2	70	130			
Surr: BFB	2000	1000		195	15	244			
Sample ID: mb	SampType: N	IBLK	Tes	tCode: <b>EF</b>	PA Method	8015D: Gasoli	ne Range		
Client ID: PBS	Batch ID: G	S98601	F	RunNo: <b>98</b>	8601				
Prep Date:	Analysis Date: 7	7/31/2023	8	SeqNo: 35	90783	Units: mg/Kg	9		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0	)							
Surr: BFB	900	1000		90.4	15	244			
Sample ID: Ics-76543	SampType: L	cs	Tes	tCode: <b>EF</b>	PA Method	8015D: Gasoli	ne Range		
Client ID: LCSS	Batch ID: 7	6543	F	RunNo: <b>98</b>	8601				
Prep Date: 7/28/2023	Analysis Date: 7	7/31/2023	S	SeqNo: 35	91155	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2000	1000		199	15	244			
Sample ID: <b>mb-76543</b>	SampType: N	IBLK	Tes	tCode: <b>EF</b>	A Method	8015D: Gasoli	ne Range		
Client ID: PBS	Batch ID: 7	6543	F	RunNo: <b>98</b>	8601				
Prep Date: 7/28/2023	Analysis Date:	7/31/2023	S	SeqNo: 35	91604	Units: %Rec			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Allalyto	ittosuit i QL	Oi it value	SER Nei Vai	70KEU	LOWLITTIL	⊓ign∟imit	70KFD	KEDLIIIII	Quai

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2307E46** 

04-Aug-23

Client: ENSOLUM
Project: SJ 28 5 14

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method	8021B: Volatiles	
Client ID: LCSS	Batch ID: BS98601	RunNo: 98601		
Prep Date:	Analysis Date: 7/31/2023	SeqNo: <b>3590788</b>	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Benzene	1.1 0.025 1.000	0 110 70	130	
Toluene	1.1 0.050 1.000	0 111 70	130	
Ethylbenzene	1.1 0.050 1.000	0 110 70	130	
Xylenes, Total	3.3 0.10 3.000	0 111 70	130	
Surr: 4-Bromofluorobenzene	1.1 1.000	109 39.1	146	
Sample ID: mb	SampType: MBLK	TestCode: EPA Method	8021B: Volatiles	
Client ID: PBS	Batch ID: BS98601	RunNo: 98601		
Prep Date:	Analysis Date: 7/31/2023	SeqNo: <b>3590790</b>	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Benzene	ND 0.025			
Toluene	ND 0.050			
Ethylbenzene	ND 0.050			
Xylenes, Total	ND 0.10			
Surr: 4-Bromofluorobenzene	1.1 1.000	109 39.1	146	
Sample ID: LCS-76543	SampType: LCS	TestCode: EPA Method	8021B: Volatiles	
Client ID: LCSS	Batch ID: 76543	RunNo: 98601		
Prep Date: <b>7/28/2023</b>	Analysis Date: 7/31/2023	SeqNo: <b>3591156</b>	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: 4-Bromofluorobenzene	1.1 1.000	114 39.1	146	
Sample ID: <b>mb-76543</b>	SampType: MBLK	TestCode: EPA Method	8021B: Volatiles	
Client ID: PBS	Batch ID: 76543	RunNo: 98601		

#### Qualifiers:

Prep Date:

Analyte

Value exceeds Maximum Contaminant Level.

7/28/2023

Surr: 4-Bromofluorobenzene

Analysis Date: 7/31/2023

Result

1.1

- 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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

SeqNo: 3591642

LowLimit

39.1

%REC

Units: %Rec

HighLimit

146

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

SPK value SPK Ref Val

1.000

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**RPDLimit** 

Qual

%RPD



Hall Environmental Analysis Laboratory 4901 Hawkins NE

Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Released to Imaging: 1/19/2024 7:30:45 AM

Client Name: ENSOLUM	Work Order Number	: 2307E4	3	RcptNo:	1
Received By: Juan Rojas	7/29/2023 7:05:00 AM	I	(Juan Bay)		
Completed By: Tracy Casarrubias	7/29/2023 8:23:37 AM	1			
Reviewed By: 717/29/23					
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗌	No 🗹	Not Present 🗌	
2. How was the sample delivered?		Courier			
<u>Log In</u> 3. Was an attempt made to 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 container(s)?		Yes 🗸	No 🗌		
6. Sufficient sample volume for indicated test(s)	?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) properly	y preserved?	Yes 🗹	No 🗌		
8. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
9. Received at least 1 vial with headspace <1/4	for AQ VOA?	Yes 🗌	No 🗌	NA 🗹	
10. Were any sample containers received broke	n?	Yes	No 🗸	# of preserved bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	for pH:	>12 unless noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌		-1=1
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗆	Checked by:	mc 7/29/2
Special Handling (if applicable)					
15. Was client notified of all discrepancies with	his order?	Yes 🗌	No 🗆	NA 🗹	
Person Notified:	Date:				
By Whom:	Via:	eMail	Phone Fax	☐ In Person	
Regarding:					
Client Instructions: Phone number ar	nd Email/Fax are missing	on COC	TMC 7/29/23		
16. Additional remarks:					
17. Cooler Information Cooler No Temp °C Condition So 1 0.7 Good Yes		Seal Date	Signed By		

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Chain-of-Custody Record	Turn-Around Time:	INTERNATIONAL TANK
Client: Ensolver LLC	□ Standard □ Rush 7-3/-33	ANALYSIS LABORATORY
	Project Name:	www.hallenvironmental.com
Mailing Address: 196 S A. O. B. R.	85 28-5 HH	4901 Hawkins NE - Albuquerque, NM 87109
Suit A 87416	Project #:	Tel. 505-345-3975 Fax 505-345-4107
Phone #:		Analysis Request
email or Fax#:	Project Manager:	(O)
QA/QC Package:	,	MS SMS
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708/2 1807 (JUL WOS)	Total Thomas Thalis Flore	
		0 11

Feleased to Imaging: 12/9/2014 7:30:43 AM notated on the analytical report.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 08, 2023

Kyle Summers

**ENSOLUM** 

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: SJ 28 5 14 OrderNo.: 2308556

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/10/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 14, 2023.

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. 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. All samples are reported as received unless otherwise indicated.

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 Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

**CLIENT: ENSOLUM** 

## **Analytical Report**

Lab Order **2308556**Date Reported: **9/8/2023** 

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-5a

**Project:** SJ 28 5 14 **Collection Date:** 8/9/2023 8:00:00 AM

**Lab ID:** 2308556-001 **Matrix:** MEOH (SOIL) **Received Date:** 8/10/2023 6:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: RBC
Chloride	ND	61	mg/Kg	20	8/10/2023 10:32:48 AM	76785
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst	: mb
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	8/10/2023 8:51:42 AM	76782
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/10/2023 8:51:42 AM	76782
Surr: DNOP	88.6	69-147	%Rec	1	8/10/2023 8:51:42 AM	76782
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: JJP
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	8/10/2023 11:45:05 AM	GS98876
Surr: BFB	94.8	15-244	%Rec	1	8/10/2023 11:45:05 AM	GS98876
EPA METHOD 8021B: VOLATILES					Analyst	: JJP
Benzene	ND	0.020	mg/Kg	1	8/10/2023 11:45:05 AM	BS98876
Toluene	ND	0.039	mg/Kg	1	8/10/2023 11:45:05 AM	BS98876
Ethylbenzene	ND	0.039	mg/Kg	1	8/10/2023 11:45:05 AM	BS98876
Xylenes, Total	ND	0.079	mg/Kg	1	8/10/2023 11:45:05 AM	BS98876
Surr: 4-Bromofluorobenzene	109	39.1-146	%Rec	1	8/10/2023 11:45:05 AM	BS98876

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 standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

orting Limit Page 1 of 5

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2308556** 

08-Sep-23

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: MB-76785 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **76785** RunNo: **98880** 

Prep Date: 8/10/2023 Analysis Date: 8/10/2023 SeqNo: 3603269 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-76785 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 76785 RunNo: 98880

Prep Date: 8/10/2023 Analysis Date: 8/10/2023 SeqNo: 3603270 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 98.0 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 Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 2 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2308556** *08-Sep-23* 

Client: ENSOLUM Project: SJ 28 5 14

Project:	SJ 28 5 14										
Sample ID:	2308556-001AMS	SampT	ype: <b>MS</b>	5	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	S-5a	Batch	n ID: <b>76</b> 7	782	F	RunNo: 9	8859				
Prep Date:	8/10/2023	Analysis D	ate: <b>8/</b>	10/2023	5	SeqNo: 30	601549	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	45	9.4	47.04	0	96.5	54.2	135			
Surr: DNOP		4.2		4.704		89.0	69	147			
Sample ID:	LCS-76782	SampT	ype: <b>LC</b>	S	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	n ID: <b>76</b> 7	782	F	RunNo: 9	8859				
Prep Date:	8/10/2023	Analysis D	oate: <b>8/</b>	10/2023	\$	SeqNo: 30	601554	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	47	10	50.00	0	93.2	61.9	130			
Surr: DNOP		4.4		5.000		88.9	69	147			
Sample ID:	MB-76782	SampT	ype: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	n ID: <b>76</b> 7	782	F	RunNo: 9	8859				
Prep Date:	8/10/2023	Analysis D	ate: <b>8/</b>	10/2023	(	SeqNo: 30	601557	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	ND	10								
Motor Oil Range	e Organics (MRO)	ND	50								
Surr: DNOP		9.1		10.00		91.2	69	147			
Sample ID:	2308556-001AMSD	SampT	уре: МS	SD	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	S-5a	Batch	n ID: <b>76</b> 7	782	F	RunNo: 9	8859				
Prep Date:	8/10/2023	Analysis D	ate: <b>8/</b>	10/2023	\$	SeqNo: 30	602160	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	46	9.6	47.85	0	97.1	54.2	135	2.27	29.2	
Surr: DNOP		4.0		4.785		84.2	69	147	0	0	

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2308556** 

08-Sep-23

Client: ENSOLUM
Project: SJ 28 5 14

Sample ID: 2.5	iug gro lcs	SampT	ype: <b>LC</b>	s	Tes	tCode: <b>EF</b>	A Method	8015D: Gaso	line Range		
Client ID: LC:	ss	Batch	ID: GS	98876	F	RunNo: <b>98</b>	8876				
Prep Date:		Analysis D	ate: <b>8/</b>	10/2023	5	SeqNo: 36	02488	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Org	ganics (GRO)	22	5.0	25.00	0	89.3	70	130			
Surr: BFB		1900		1000		193	15	244			
Sample ID: mb	)	SampT	уре: МЕ	BLK	Tes	tCode: <b>EF</b>	A Method	8015D: Gaso	line Range		
Client ID: PB	S	Batch	ID: GS	98876	F	RunNo: <b>98</b>	8876				
Prep Date:		Analysis D	ate: <b>8/</b>	10/2023	\$	SeqNo: 36	602489	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Org	ganics (GRO)	ND	5.0								
Surr: BFB		950		1000		95.2	15	244			
Sample ID: 230	08556-001ams	SampT	ype: MS		Tes	tCode: <b>EF</b>	A Method	8015D: Gaso	line Range		
Client ID: S-5	5a	Batch	ID: GS	98876	F	RunNo: <b>98</b>	8876				
Prep Date:		Analysis D	ate: <b>8/</b>	10/2023	9	SeqNo: 36	602679	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Org	ganics (GRO)	18	3.9	19.73	0	91.1	70	130			
Surr: BFB		1600		789.3		200	15	244			
Sample ID: 230	08556-001amsd	SampT	ype: MS	SD .	Tes	tCode: <b>EF</b>	A Method	8015D: Gaso	line Range		
Client ID: S-5	5a	Batch	ID: GS	98876	F	RunNo: <b>98</b>	8876				
Prep Date:		Analysis D	ate: <b>8/</b>	10/2023	9	SeqNo: 36	602680	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tildiyic			I QL	Of It value	Of It Itol Val	7011LO	LOWLIIIII	riignemit	701 NI D	IN DEITH	Qua

#### Qualifiers:

Surr: BFB

- 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

1600

789.3

B Analyte detected in the associated Method Blank

205

15

244

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2308556** *08-Sep-23* 

Client: ENSOLUM Project: SJ 28 5 14

Sample ID: 100ng btex lcs	Samp <sup>-</sup>	Гуре: <b>LC</b> :	s	Tes	tCode: EF					
Client ID: LCSS	Batc	h ID: BS	98876	F	RunNo: 98876					
Prep Date:	Analysis [	Analysis Date: 8/10/2023			SeqNo: <b>3602492</b>			Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	70	130			
Toluene	1.1	0.050	1.000	0	109	70	130			
Ethylbenzene	1.1	0.050	1.000	0	110	70	130			
Xylenes, Total	3.3	0.10	3.000	0	111	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	39.1	146			

Sample ID: mb	SampT	ype: <b>ME</b>	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	n ID: BS	98876	F	RunNo: 98					
Prep Date:	Analysis D	10/2023	5	SeqNo: 36	602493	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	39.1	146			

Sample ID: 2308556-001AMS	Samp	Туре: <b>МЅ</b>	SD .	TestCode: EPA Method 8021B: Volatiles							
Client ID: S-5a	Batc	h ID: BS	98876	RunNo: <b>98876</b>							
Prep Date:	Analysis I	Date: <b>8/</b>	10/2023	5	SeqNo: 30	602705	Units: mg/K				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.82	0.020	0.7893	0	104	70	130	1.62	20		
Toluene	0.83	0.039	0.7893	0	105	70	130	2.10	20		
Ethylbenzene	0.85	0.039	0.7893	0	107	70	130	0.353	20		
Xylenes, Total	2.6	0.079	2.368	0.01586	107	70	130	0.901	20		
Surr: 4-Bromofluorobenzene	0.87		0.7893		110	39.1	146	0	0		

Sample ID: 2308556-001AMS	SampT	ype: MS	;	Tes	8021B: Volati	les				
Client ID: S-5a	Batch ID: <b>BS98876</b> RunNo: <b>98876</b>									
Prep Date:	Analysis D	)ate: <b>8/</b> 1	10/2023	5	SeqNo: 36	602706	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	Ref Val %REC LowLimit		HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.020	0.7893	0	106	70	130		_	
Toluene	0.85	0.039	0.7893	0	107	70	130			
Ethylbenzene	0.85	0.039	0.7893	0	108	70	130			
Xylenes, Total	2.6	0.079	2.368	0.01586	108	70	130			
Surr: 4-Bromofluorobenzene	0.87		0.7893		110	39.1	146			

#### 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
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque. NM 87109

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

# Sample Log-In Check List

Released to Imaging: 1/19/2024 7:30:45 AM

DOME SOME		Website: www.f	allenvironmental	.com		
Client Name: E	ENSOLUM	Work Order Numbe	r: <b>2308556</b>		RcptNo:	1
Received By:	Tracy Casarrubias	8/10/2023 6:30:00 AM	Л			
Completed By:	Tracy Casarrubias	8/10/2023 7:04:37 AM	Л			
Reviewed By:	In 8/10/23					
Chain of Custo	ody					
1. Is Chain of Cus	stody complete?		Yes 🗌	No 🗸	Not Present	
2. How was the sa	ample delivered?		Courier			
Log In						
	t made to cool the sample	s?	Yes 🗹	No 🗆	na 🗌	
4. Were all sample	es received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗌	na 🗌	
5. Sample(s) in pro	oper container(s)?		Yes 🗸	No 🗌		
6. Sufficient sampl	le volume for indicated tes	t(s)?	Yes 🗹	No 🗌		
7. Are samples (ex	ccept VOA and ONG) prop	erly preserved?	Yes 🗹	No 🗌		
8. Was preservativ	e added to bottles?		Yes 🗌	No 🗹	na 🗆	
9. Received at least	st 1 vial with headspace <	1/4" for AQ VOA?	Yes 🗌	No 🗌	NA 🗹	
10. Were any samp	ple containers received bro	ken?	Yes	No 🗹	# of preserved	
	match bottle labels? cies on chain of custody)		Yes 🗹	No 🗌	bottles checked for pH:	>12 unless noted)
12. Are matrices co	rrectly identified on Chain	of Custody?	Yes 🗹	No 🗌	Adjusted?	Scm, 08/10
13. Is it clear what a	analyses were requested?		Yes 🗸	No 🗌	1501	MARIOGIA
-	times able to be met? tomer for authorization.)		Yes 🗹	No 🗌	Checked by:	60/0/1/20
	ng (if applicable)					08/10/23
	fied of all discrepancies wi	th this order?	Yes 🗌	No 🗌	NA 🗸	
Person N	otified:	Date:				
By Whom	1.	Via:	eMail P	hone  Fax	☐ In Person	
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16. Additional remains	arks:					
17. Cooler Inform						
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Mailing Address: Cob S Kio Coch	中	4901 Hawkins NF - Albuquerque NM 87109
$Q^{\mu}$	Project #:	
Phone #:	05 A 133   239	Analysis
email or Fax#:	Project Manager:	†*C
QA/QC Package:		NS Sys
☐ Standard ☐ Level 4 (Full Validation)	& Summers	PCF
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Released to Imaging: 17 1921 4 4:30 Expression and be sebcontracted to the analytical report. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

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 267435

#### **CONDITIONS**

Operator:	OGRID:
Enterprise Field Services, LLC	241602
PO Box 4324	Action Number:
Houston, TX 77210	267435
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
nvelez	None	1/19/2024