

February 18, 2022 Vertex Project #: 21E-00123-011

**Spill Closure Report:** Warren ANW Federal #6

Unit J, Section 9, Township 19 South, Range 25 East

County: Eddy API: 30-015-28786

Incident ID: nAPP2129353745

Prepared For: EOG Resources, Inc.

104 S. 4<sup>th</sup> Street

Artesia, New Mexico, 88210

New Mexico Oil Conservation Division - District 2 - Artesia

811 S. 1st Street

Artesia, New Mexico 88210

EOG Resources, Inc. (EOG) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and remediation for historical impacts that were discovered on October 15, 2021, at Warren ANW Federal #6, API 30-015-28786 (hereafter referred to as "Warren"). EOG submitted an initial C-141 Release Notification (Attachment 1) to New Mexico Oil Conservation Division (NMOCD) District 2 on October 20, 2021. Incident ID number nAPP2129353745 was assigned to this incident.

This letter provides a description of the assessment and remediation activities and demonstrates that closure criteria established in Table I of 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) are being met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this remediation site, with the understanding that restoration of the well site will occur immediately after approval as all oil and gas activities have been terminated and the site is being reclaimed per 19.15.29.13 NMAC.

### **Incident Description**

The impacted area at Warren occurred on private land at 32.67377 N, -104.48769 W, approximately 7 miles southwest of Dayton, New Mexico. The legal description for the site is Unit J, Section 9, Township 19 South, Range 25 East in Eddy County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production, and rangeland. An aerial map of the site is included in Attachment 2.

The surrounding landscape is associated with ridges, fans, fan remnants and alluvial fans ranging between 1,100 and 5,400 feet. The climate is semi-arid with average annual precipitation ranging between 6 and 15 inches. Using information from United States Department of Agriculture, the dominant vegetation was determined to be principally tobosa, black grama and blue grama (United States Department of Agriculture, Natural Resources Conservation Service, 2021).

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The Geological Map of New Mexico indicates the surface geology at Warren is comprised primarily of QP—Piedmont alluvial deposits from the Holocene to lower Pleistocene ages (New Mexico Bureau of Geology and Mineral Resources, 2021). The United States Department of Agriculture Web Soil Survey characterizes the soil at the site as Reagan-Upton association. The soil is well-drained with a high runoff and low to moderately high moisture levels in the profile. The karst geology potential for Warren is medium (United States Department of the Interior, Bureau of Land Management, 2018).

There is no surface water located at Warren. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River located approximately 9 miles east of the site. At Warren, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest active well to Warren is a water well located approximately 0.48 miles southeast of the site. It is a USGS monitoring well that provides a depth to groundwater reference. Data from 2012 indicate the USGS well had a depth to groundwater of 94 feet below ground surface (bgs; United States Department of the Interior, United States Geological Survey, 2021). Information pertaining to the depth to groundwater determination is included in Attachment 3.

### **Closure Criteria Determination**

Using site characterization information, a closure criteria determination worksheet (Attachment 3) was completed to determine if the remediation was subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Based on the data included in the closure criteria determination worksheet, the remediation area at Warren is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC. The nearest groundwater well is less than 25 years old and located inside 0.5 miles from the site; however, the site is subject to NMOCD's strictest criteria as it is being reclaimed immediately after closure acceptance. The closure criteria for the site is determined to be associated with the following constituent concentration limits (Table 1).

Table 1. Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS <sup>1</sup>	Constituent	Limit	
< 50 feet	Chloride	600 mg/kg	
	TPH <sup>2</sup> (GRO+DRO+MRO)	100 mg/kg	
	BTEX <sup>3</sup>	50 mg/kg	
	Benzene	10 mg/kg	

<sup>&</sup>lt;sup>1</sup>Total dissolved solids (TDS)

<sup>&</sup>lt;sup>2</sup>Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

<sup>&</sup>lt;sup>3</sup>Benzene, toluene, ethylbenzene and xylenes (BTEX)

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### **Remedial Actions**

On September 29, 2021, Ranger Environmental Services, Inc. (Ranger) conducted initial site assessment activities through field screening procedures. Characterization sample points for Ranger's delineation are included in Figure 2 (Attachment 2). Characterization sample analytical data from Ranger's delineation are summarized in Attachment 4. Oversight of the remediation field work and confirmatory sampling were completed by Vertex.

Excavation of impacted soils was conducted between November 3, 2021, and January 13, 2022, with a Vertex representative on-site to conduct field screen procedures to determine final horizontal and vertical extents of the excavation area. The Daily Field Report(s) and associated photographs are included in Attachment 6. The north wall of the excavation was extended to the south edge of the drilling mud pit located directly north of the pad. Excavation into the pit was halted to preserve the structural integrity of the liner installed. The drilling pit was then sloped to a 45-degree angle to allow for the Geosynthetic Clay Liner (GCL) to be installed to prevent migration to the remediated area from the historical pit. The slope will also assit with shedding of any excess water that accumulates on the GCL through natural precipitation events. The following sidewall samples, WES22-37 through WES22-40 were above the strictest applicable criteria outlined in the NMAC 19.15.29 Table 1 and will be contained with the GCL. The Assessment and Reclamation Plan approved by both the surface landowner (Howell Revocable Trust) and mineral owner (Bureau of Land Management) addresses this action as part of the restoration of the site (Attachment 8). Installation of the GCL will take place prior to backfilling the location.

On November 10, 2021, following excavation activities, EOG provided 48-hour notification of confirmation sampling to NMOCD (Attachment 5), as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC. Between November 17, 2021, and February 11, 2022, Vertex collected a total of 84 five-point composite confirmatory samples from the base and side walls of the excavation, at depths ranging between ground surface and six feet bgs. Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NMOCD approval. The composite samples were placed into laboratory-provided containers, preserved on ice, and submitted to a National Environmental Laboratory Accreditation Program-approved laboratory for chemical analysis. On January 13, 2022, excavation was completed with approximately 4,021 total yards excavated and hauled off to Lea Land, LLC Landfill. Vertex collected an additional eight confirmatory samples on February 11, 2022, to meet NMOCD's 200 square-foot requirement. Final square footage of the excavation was 16,427 square feet.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Confirmatory sample analytical data are summarized in Attachment 6. Laboratory data reports and chain of custody forms are included in Attachment 7.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit, or equivalent, was used to map the approximate center of each of the five-point composite samples. The confirmatory sample locations are presented on Figure 2 (Attachment 2). Relevant equipment and prominent features/reference points at the site are mapped as well.

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### **Closure Request**

Vertex recommends no additional action to address the remediation area at Warren. Laboratory analyses of confirmation samples collected at Warren show final confirmatory values below NMOCD closure criteria for areas where depth to groundwater is less than 50 feet bgs as presented in Table 1. There are no anticipated risks to human, ecological, or hydrological receptors at this release site.

Vertex requests that this incident (nAPP2129353745) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. EOG certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the remediation area at Warren.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575-988-2681 or mmoffitt@vertex.ca.

Chance Dixon	2/17/2022
Chance Dixon, B. Sc. ENVIROMENTAL TECHNICIAN, REPORTING	Date
TM: has DTM . I I it	
Michael Moffitt	2/17/2022
Michael Moffitt, B. Sc.	Date
PROJECT MANAGER, REPORTING	

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### **Attachments**

Attachment 2. Figures

Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation

Attachment 4. Summarized Laboratory Data Tables

Attachment 5. Required 48-hour Notification of Confirmatory Sampling to Regulatory Agencies

Attachment 6. Daily Field Reports with Photographs

Attachment 7. Laboratory Data Reports and Chain of Custody Forms

Attachment 8. Howell Ranch Reclamation Plan

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### References

- New Mexico Bureau of Geology and Mineral Resources. (2021). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.
- New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division. (2021). *Registered Mines and Permits Search*. Retrieved from https://wwwapps.emnrd.state.nm.us/MMD/MMDWebInfo/.
- New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2021). Water Column/Average Depth to Water Report. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html.
- New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.
- United States Department of Agriculture, Natural Resources Conservation Service. (2021). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.
- United States Department of the Interior, Bureau of Land Management. (2018). New Mexico Cave/Karsts.
- United States Department of the Interior, United States Geological Survey. (2021). *National Water Information System*.Retrieved from https://waterdata.usgs.gov/nwis
- United States Fish and Wildlife Service. (2021). *National Wetlands Inventory*. Retrieved from https://www.fws.gov/wetlands/data/Mapper.html.

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### Limitations

This report has been prepared for the sole benefit of EOG Resources, Inc. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and EOG. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

# ATTACHMENT 1

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

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District RP	
Facility ID	
Application ID	

## **Release Notification**

### **Responsible Party**

					_		
Responsible Party EOG Resources, Inc.		OGRID 7377					
Contact Name Chase Settle		Contact Telephone 575-748-1471					
Contact email Chase_Settle@eogresources.com		Incident # nAPP2129353745					
Contact mai	ling address	104 S. 4th St	reet, Artesia,	NM 8	8210		
			Location	n of F	Release S	Source	
Latitude 32	.67377				Longitude	Longitude -104.48769	
			(NAD 83 in a	lecimal de	egrees to 5 deci	imal places)	
Site Name M	/arren AN	IW Federal #6	 }		Site Type	Well Pad	
Date Release	Discovered	10/15/2021				<sup>pplicable)</sup> 30-015-28786	
		10/10/2021				00 010 20700	
Unit Letter	Section	Township	Range		County		
J	9 19S 25E Eddy						
Sumfo as Ourma	Surface Owner: State Federal Tribal Private (Name: Howell Revocable Trust						
Surface Owne	r State		ribai 💟 Private	(wame:	110110111		
			Nature an	d Vo	lume of	Release	
	Materia	al(s) Released (Select s	all that apply and attac	ch calcula	tions or specifi	ic justification for the volumes provided below)	
Crude Oi		Volume Release		en carcura	dons of specifi	Volume Recovered (bbls)	
✓ Produced Water Volume Released (bbls) Unknown			Volume Recovered (bbls) 0				
Is the concentration of dissolved chloride		e in the	✓ Yes □ No				
□ C 1	. 4 .	produced water				V 1 D 1(111)	
Condensate Volume Released (bbls)			Volume Recovered (bbls)				
Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)				
Other (de	escribe)	Volume/Weigh	t Released (provi	de units	)	Volume/Weight Recovered (provide units)	
Cause of Rel	lease Histor	rical impacts re	ported by the	surface	e owner.	The environmental consultant contracted to	
		ilgate the area than likely brea				d on the impacted area footprint that the release nreshold.	
		,	•				

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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the respon	nsible party consider this a major release?
☐ Yes ☑ No		
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
	Initial Ro	esponse
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
☐ The source of the rele	ease has been stopped.	
☑ The impacted area ha	s been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	l managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
Per 19 15 29 8 B (4) NM	IAC the responsible party may commence r	emediation immediately after discovery of a release. If remediation
has begun, please attach	a narrative of actions to date. If remedial	efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
		pest of my knowledge and understand that pursuant to OCD rules and
public health or the environr	ment. The acceptance of a C-141 report by the C	fications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name: Chase	Settle	Title: Rep Safety & Environmental Sr
Signature: Chan	o Pettle	Date: 10/20/2021
<sub>email</sub> . Chase Settle	@eogresources.com	Telephone: 575-748-1471
<u> </u>		1 clophone.
OCD Only		
Received by:		Date:
		<del>-</del>

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### **Site Assessment/Characterization**

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	94 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🔀 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes 🔀 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes 🏿 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes 🔀 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🗵 No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes 🔀 No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes 🔀 No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver	tical extents of soil

contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- X Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.			
Printed Name: Chase Settle	Title: Rep Safety & Environmental Sr		
Signature: Chase Settle	Date: 02/17/2022		
email: Chase_Settle@eogresources.com	Telephone: <u>575-748-1471</u>		
OCD Only			
Received by:	Date:		

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# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e included in the plan.						
<ul> <li>□ Detailed description of proposed remediation technique</li> <li>□ Scaled sitemap with GPS coordinates showing delineation points</li> <li>□ Estimated volume of material to be remediated</li> <li>□ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>□ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>							
Deferral Requests Only: Each of the following items must be con-	firmed as part of any request for deferral of remediation.						
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility						
Extents of contamination must be fully delineated.							
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.						
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Printed Name:	Title:						
Signature:	Date:						
email:	Telephone:						
OCD Only							
Received by:	Date:						
☐ Approved ☐ Approved with Attached Conditions of	Approval						
Signature:	Date:						

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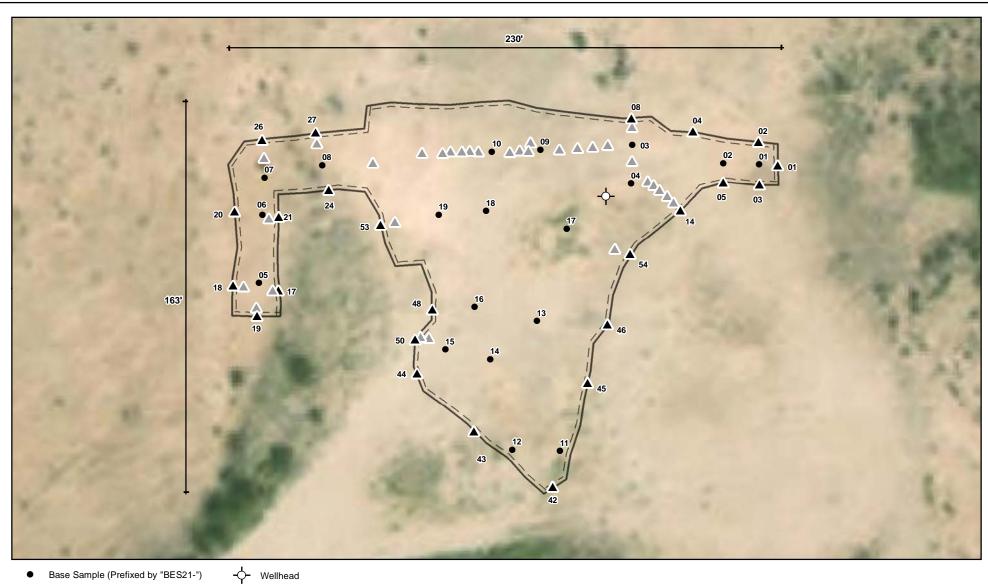
Incident ID	nAPP2129353745
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Application ID	

### 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 it	tems must be included in the closure report.
☒ A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
Note that Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)
□ Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in
Printed Name: Chase Settle	Title: Rep Safety & Environmental Sr
Signature: <u>Chase Settle</u>	Date: 02/17/2022
email: Chase_Settle@eogresources.com	Telephone: 575-748-1471
OCD Only	
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface values of compliance with any other federal, state, or local laws and/o	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date: 03/10/2022
Printed Name: Jennifer Nobui	Title: Environmental Specialist A

# **ATTACHMENT 2**



▲ Wall Sample (Prefixed by "WES21-")

Approximate Excavation Area (16,261 sq. ft.)

Wall Sample (Excavated)





NAD 1983 UTM Zone 13N Date: Feb 17/22



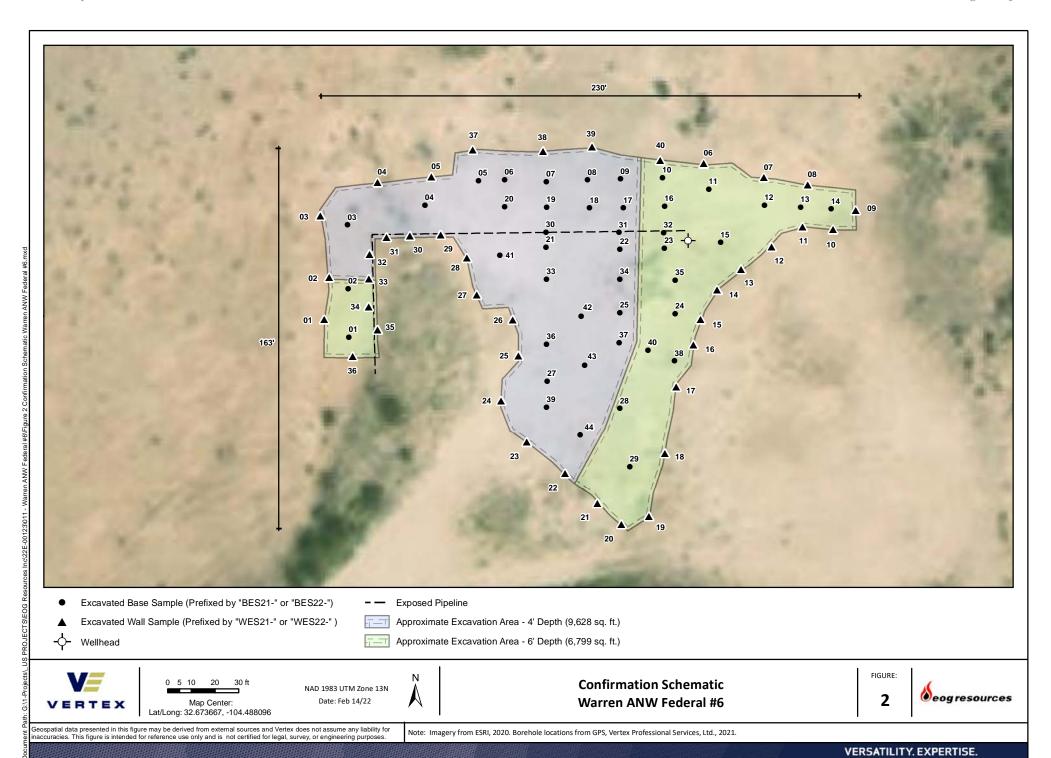
Characterization Schematic Warren ANW Federal #6

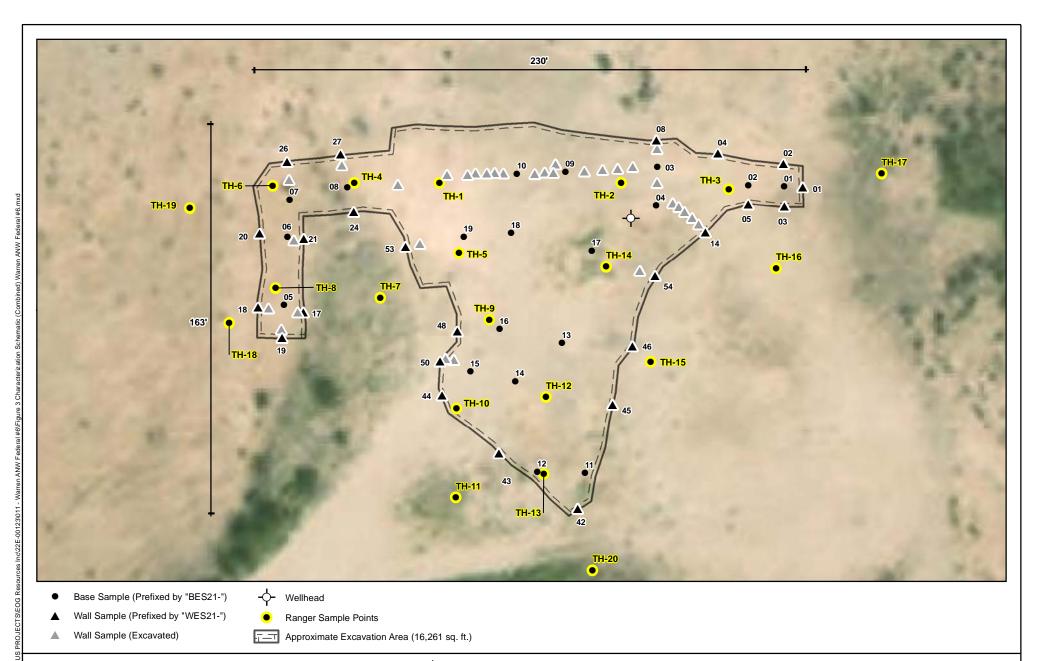
FIGURE:



Seospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for naccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020. Borehole locations from GPS, Vertex Professional Services, Ltd., 2021.









NAD 1983 UTM Zone 13N Date: Feb 17/22



Characterization Schematic
Combined Vertex and Ranger Locations
Warren ANW Federal #6

FIGURE:



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for naccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020. Borehole locations from GPS, Vertex Professional Services, Ltd., 2021.

# **ATTACHMENT 3**





# New Mexico Office of the State Engineer Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64Q16Q4 Sec Tws Rng

X

RA 05333

19S 25E

548430 3616046\*

Driller License: 353 Driller Company:

OSBOURN DRILLING & PUMP CO.

Driller Name:

Drill Start Date:

**EXISTING WELL** 

Drill Finish Date: 05/05/1967

Plug Date:

Log File Date:

04/18/1967 05/12/1967

PCW Rcv Date:

Source:

303 Sandstone/Gravel/Conglomerate

Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

315 feet

Depth Water:

260 feet

Water Bearing Stratifications:

Top Bottom Description

275 290

290 Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

280 312

**MASTER** 

Meter Serial Number: FL001

8784

Meter Multiplier:

10.0000

Number of Dials:

Meter Number:

2005

2006

Barrels 42 gal.

Meter Type:

Meter Make:

Diversion

Unit of Measure: Usage Multiplier: Return Flow Percent: Reading Frequency:

### Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	g Rdr Comment	Mtr Amount Online
02/25/2005	2005	19	A	RPT	0
03/10/2005	2005	4671	A	RPT	1.428
10/13/2005	2005	4822	A	ch	0.046
12/19/2005	2005	43967	A	jw	0
01/13/2006	2006	44260	A	jw	0.378
04/10/2006	2006	44260	A	ch	0
**YTD Met	er Amoı	ınts: Year		Amount	

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

1.474

0.378

10/22/21 12:27 PM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

		POD Sub-		0	0	0								77	7 4
POD Number	Code		County	Q 64		-	Sec	Tws	Rng	X	Y	DistanceDept	hWellDept		ater lumn
RA 05333		RA	ED		2	2	09	19S	25E	548430	3616046*	900	315	260	55
<u>RA 05900</u>		RA	ED		2	2	16	19S	25E	548442	3614424*	910	185	95	90
<u>RA 05450</u>		RA	СН		4	2	15	19S	25E	550057	3614015*	2364	204	80	124
<u>RA 05331</u>		RA	ED	1	1	4	05	19S	25E	546308	3616955*	2434	460	305	155
<u>RA 04208</u>		RA	ED		2	4	03	19S	25E	550036	3616845*	2567	110		
<u>RA 06418</u>		RA	ED	1	2	3	17	19S	25E	545925	3613710*	2603	120	72	48
<u>RA 04236</u>		RA	СН	3	3	1	02	19S	25E	550335	3617145*	2988	360	204	156
<u>RA 04722</u>		RA	ED		3	1	02	19S	25E	550436	3617246*	3131	200	42	158
RA 02909		RA	ED		1	3	22	19S	25E	548864	3611989*	3353	188	130	58
<u>RA 08986</u>		RA	ED	1	3	3	22	19S	25E	548825	3611507	3813	320	220	100
<u>RA 04128</u>		RA	ED			2	02	19S	25E	551443	3617449*	4063	211	100	111
<u>RA 11654 POD1</u>		RA	ED		3	2	19	19S	25E	544959	3612514	4107	500		
<u>RA 04426</u>		RA	СН		4	3	18	19S	25E	544412	3613201*	4155	715		
<u>RA 04726</u>		RA	ED		3	2	19	19S	25E	544825	3612390*	4290	390	310	80
<u>RA 08146</u>		RA	ED	4	4	3	28	18S	25E	547693	3619576*	4351	400		
<u>RA 03304</u>		RA	ED			1	27	19S	25E	549081	3610973*	4391	130	60	70
<u>RA 03959</u>		RA	ED		2	4	12	19S	24E	543589	3615225*	4444	545	265	280
<u>RA 07639</u>		RA	ED		3	1	01	19S	25E	552049	3617250*	4491	260	172	88
<u>RA 03983</u>		RA	СН		4	3	01	19S	25E	552457	3616444*	4584	375	100	275
<u>RA 04335</u>		RA	СН		1	1	32	18S	25E	545580	3619275*	4724	400	300	100
<u>RA 06436</u>		RA	ED	3	1	4	12	19S	24E	543083	3615122*	4951		300	
<u>RA 03975</u>		RA	ED	3	1	3	36	18S	25E	551942	3618353*	4998	430	270	160
											A ***	as Douth to Water		192 fac	

Average Depth to Water:

182 feet

Minimum Depth:

42 feet

Maximum Depth: 310 feet

Record Count: 22

UTMNAD83 Radius Search (in meters):

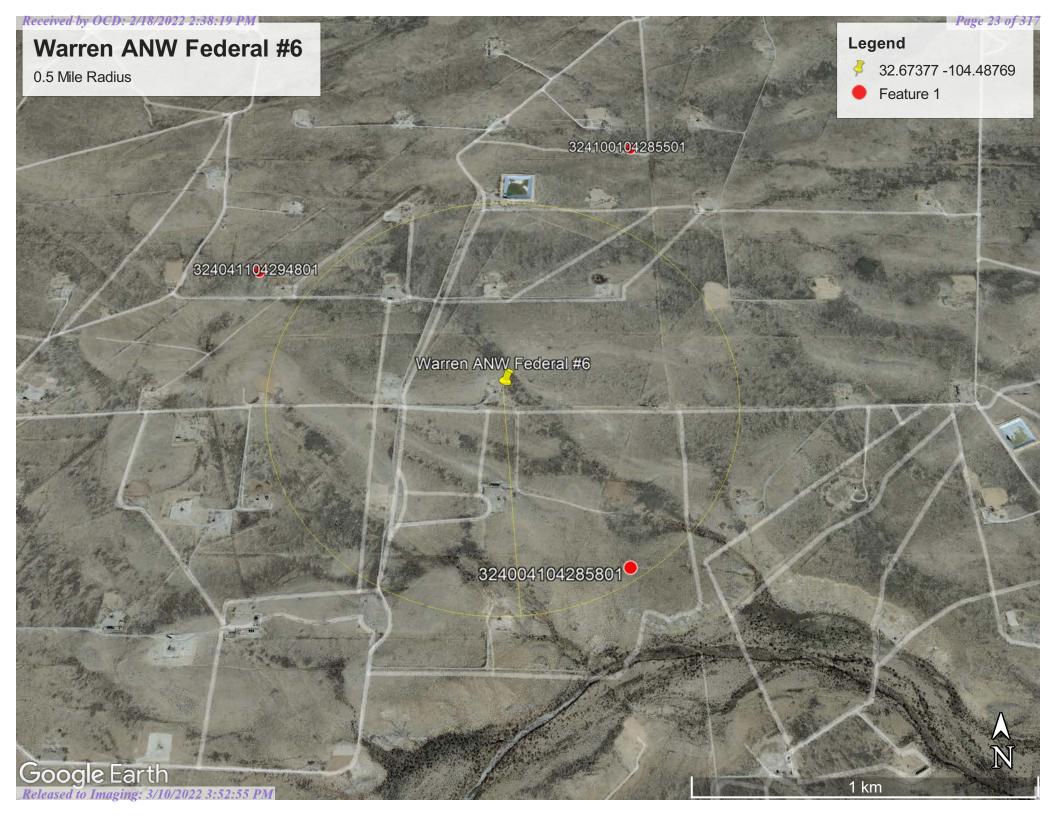
Easting (X): 548033.48 Northing (Y): 3615237.93 Radius: 5000

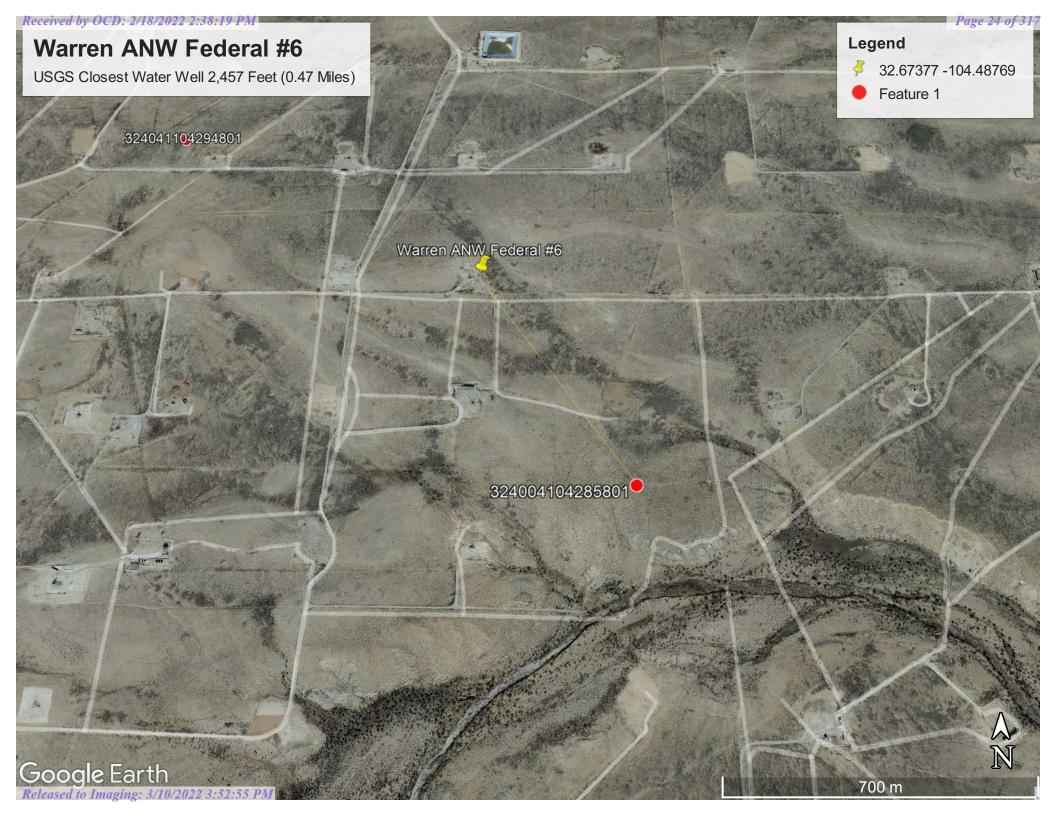
\*UTM location was derived from PLSS - see Help

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

10/22/21 12:25 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER







USGS Home Contact USGS Search USGS

### **National Water Information System: Web Interface**

**USGS Water Resources** 

Data Category:		Geographic Area:		
Groundwater	~	United States	~	GO

### Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water <u>data</u> from over 13,500 stations nationwide.
- Full News

### Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

### Search Results -- 1 sites found

site\_no list =

• 324004104285801

### Minimum number of levels = 1

Save file of selected sites to local disk for future upload

### USGS 324004104285801 19S.25E.16.22332

Available data for this site Groundwater: Field measurements GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°40'04", Longitude 104°28'58" NAD27

Land-surface elevation 3,487 feet above NAVD88

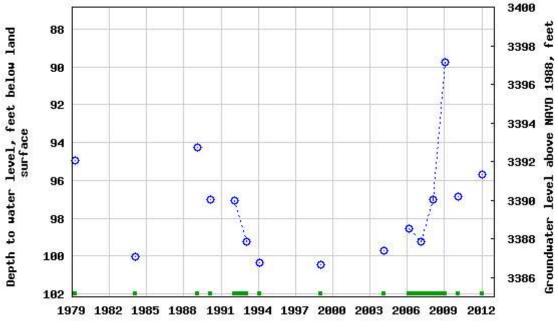
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

### **Output formats**

Table of data	
Tab-separated data	
Graph of data	
Reselect period	





Period of approved data

Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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U.S. Department of the Interior | U.S. Geological Survey

**Title: Groundwater for USA: Water Levels** 

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

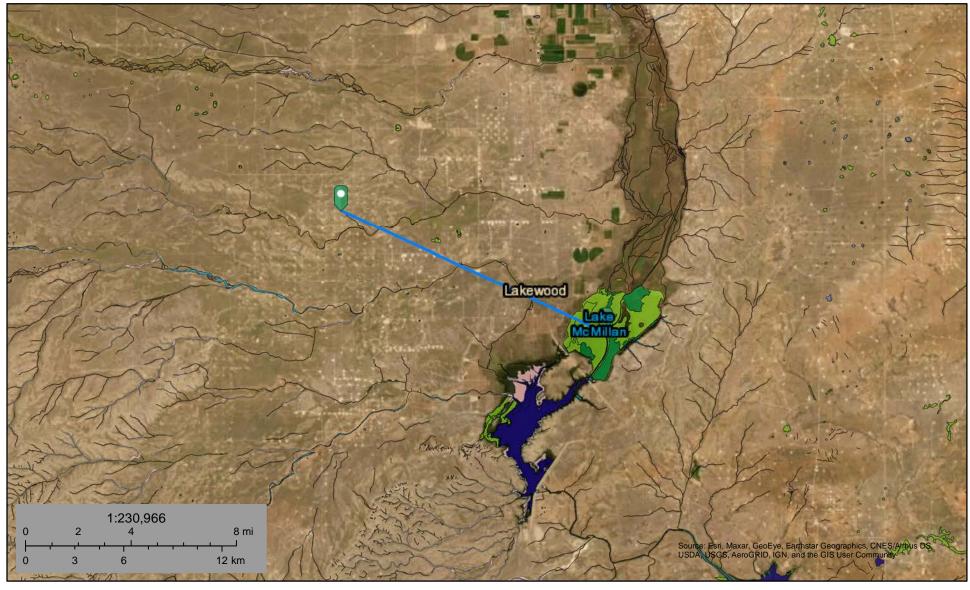
Page Last Modified: 2022-02-18 11:46:22 EST

0.62 0.54 nadww02





# Warren ANW Federal #6 Nearest Flowing \



October 22, 2021

### Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

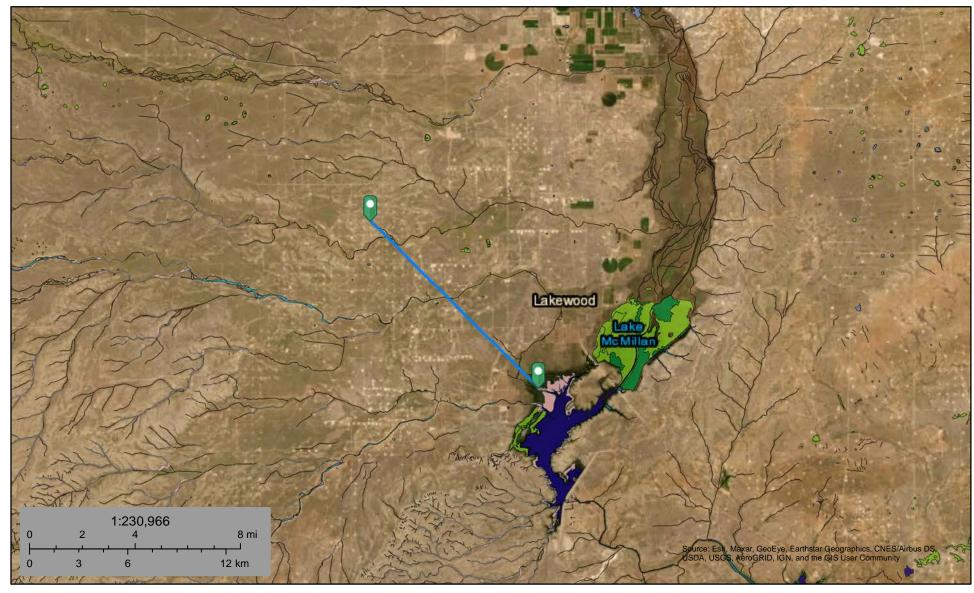
Other

Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



# Nearest Lakebed Brantley Lake 39,927 Fee



October 22, 2021

### Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

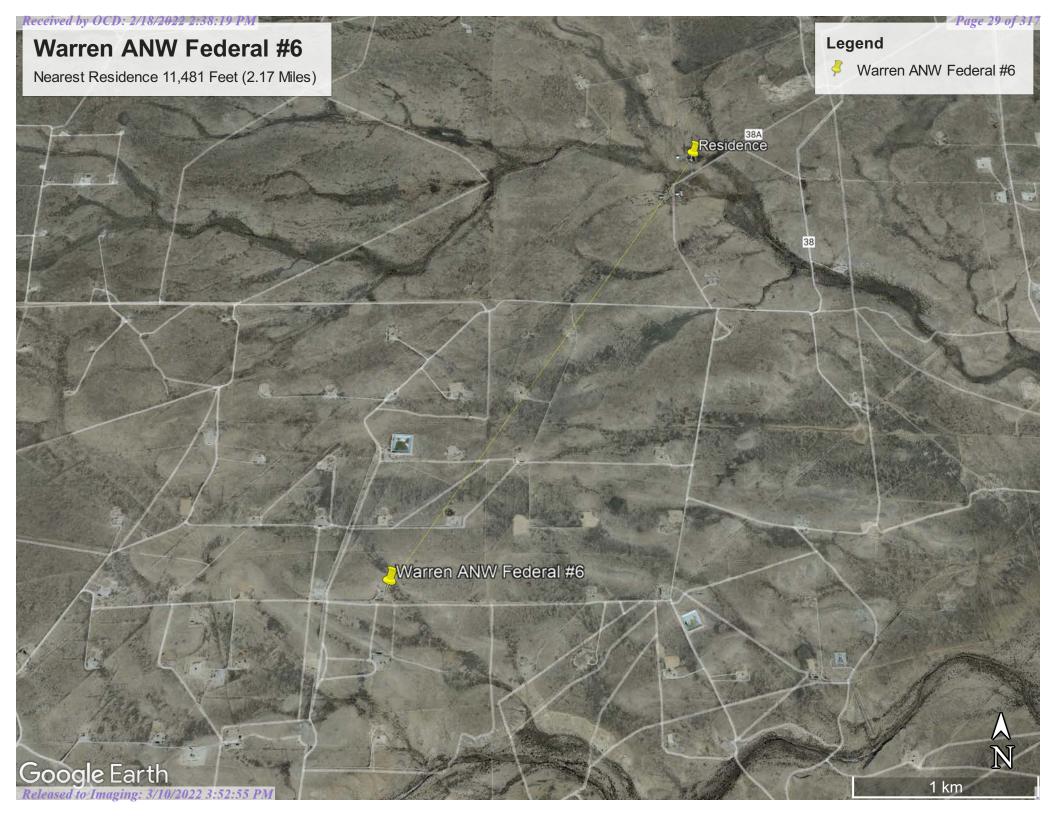
Freshwater Pond

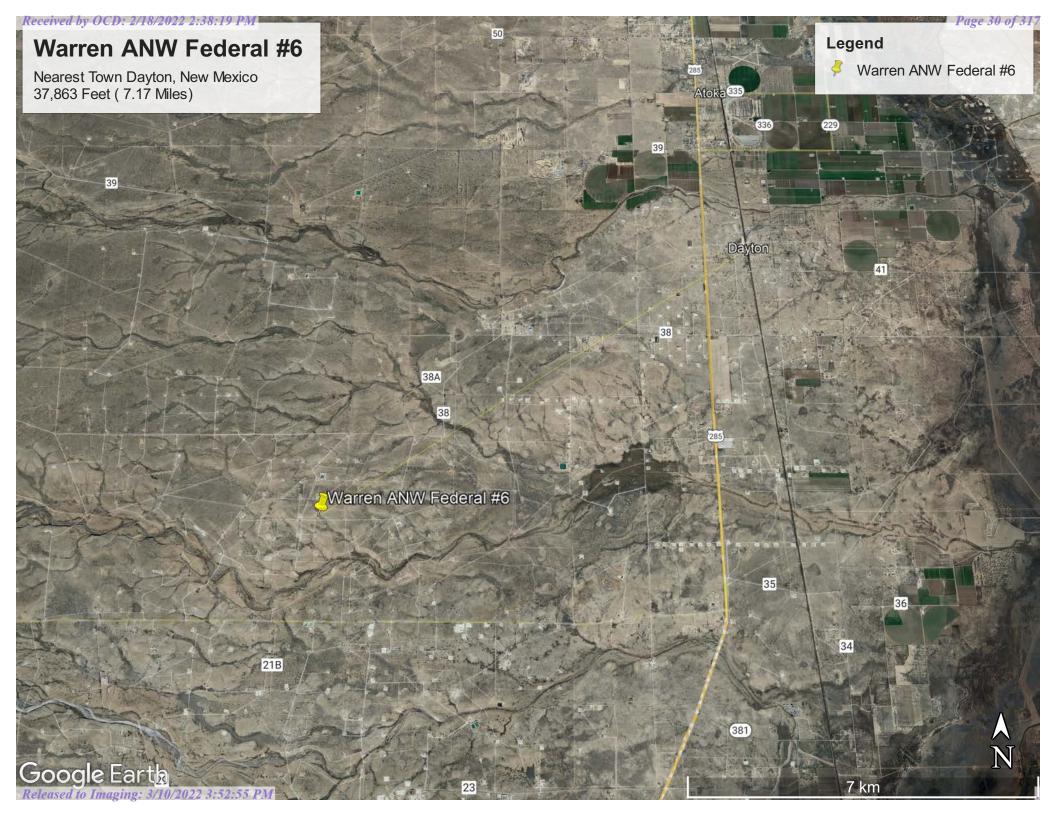
Lake

Other

Riverine

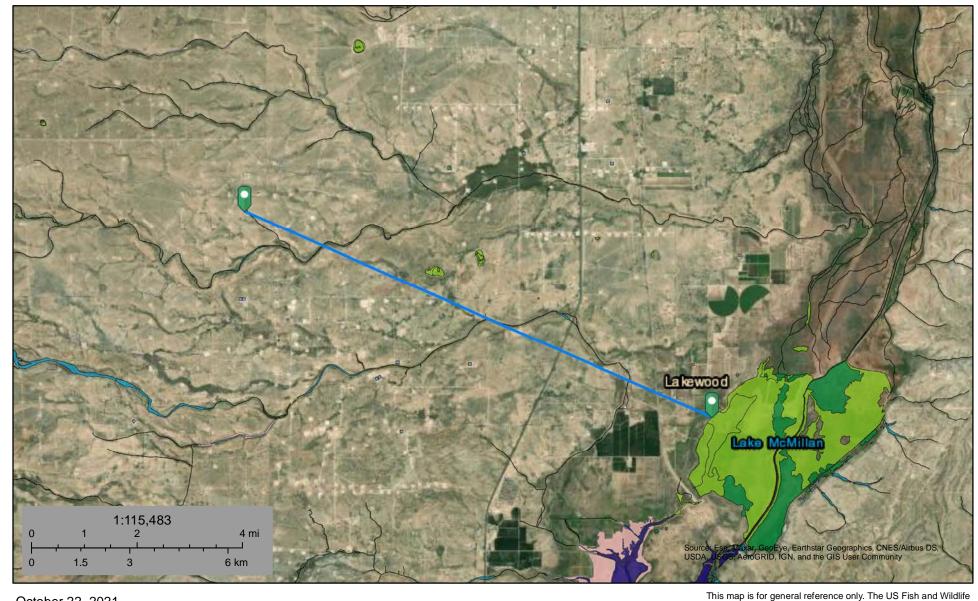
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.







# Nearest Wetland 43,107 Feet (8.16 Miles)



October 22, 2021

### Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

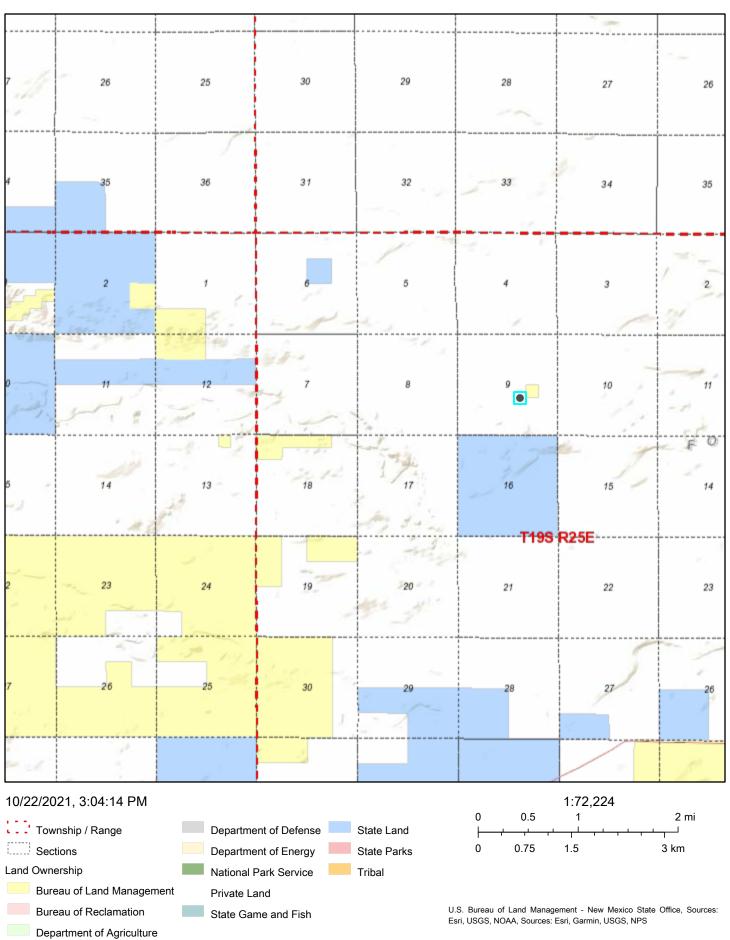
Lake

Other

Riverine

Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# Active Mines in New Mexico



OReleas 240 Imaging: 3/10/2022 9.992:55 PM

# National Flood Hazard Layer FIRMette



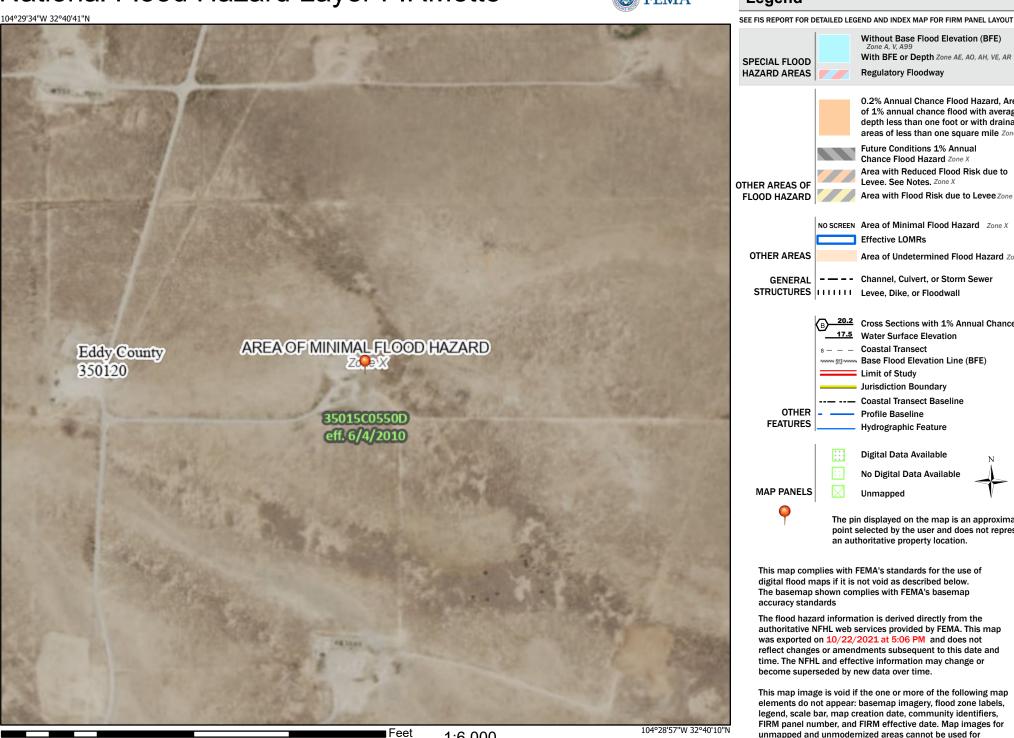


Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD HAZARD AREAS Regulatory Floodway 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X **Future Conditions 1% Annual** Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X OTHER AREAS OF Area with Flood Risk due to Levee Zone D FLOOD HAZARD NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs OTHER AREAS Area of Undetermined Flood Hazard Zone D - - - Channel, Culvert, or Storm Sewer **GENERAL** STRUCTURES | LILLIL Levee, Dike, or Floodwall 20.2 Cross Sections with 1% Annual Chance 17.5 Water Surface Elevation **Coastal Transect** ----- Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary **Coastal Transect Baseline** OTHER **Profile Baseline FEATURES** Hydrographic Feature Digital Data Available No Digital Data Available MAP PANELS Unmapped The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/22/2021 at 5:06 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

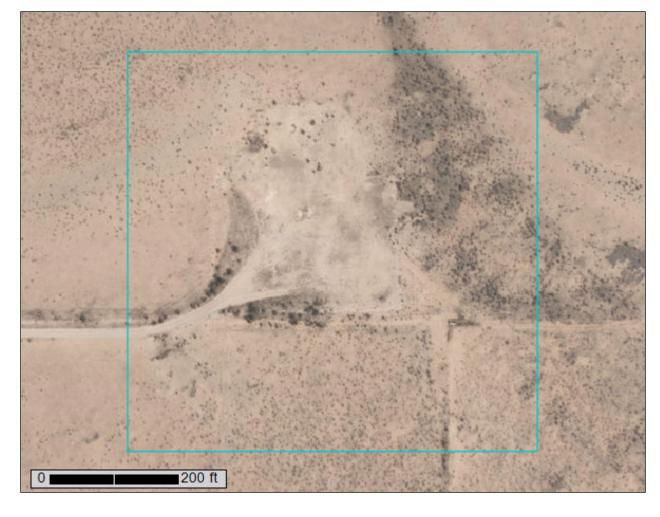




**VRCS** 

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Eddy Area, New Mexico



# **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

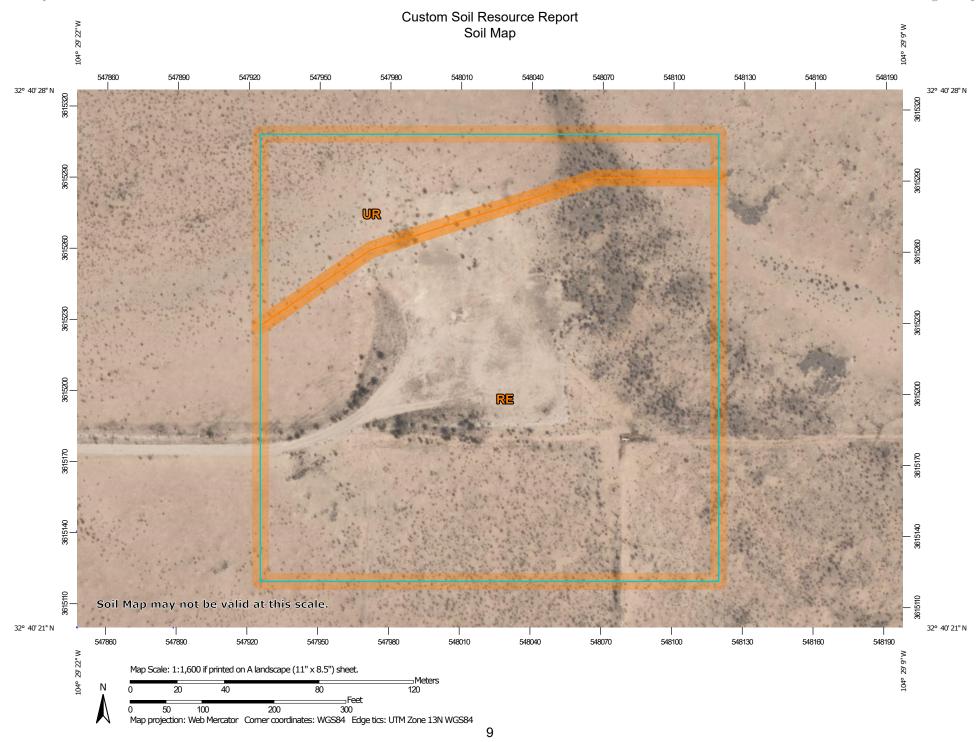
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

#### Special Point Features

ဖ

Blowout

Borrow Pit

Clay Spot

**Closed Depression** 

Gravel Pit

**Gravelly Spot** 

Landfill Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area



Stony Spot

Very Stony Spot

Ŷ

Wet Spot Other

Δ

Special Line Features

#### **Water Features**

Streams and Canals

#### Transportation

---

Rails

Interstate Highways

**US Routes** Major Roads

00

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 17, Sep 12, 2021

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28. 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RE	Reagan-Upton association, 0 to 9 percent slopes	7.3	80.4%
UR	Upton-Reagan complex, 0 to 9 percent slopes	1.8	19.6%
Totals for Area of Interest		9.1	100.0%

### **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

### **Eddy Area, New Mexico**

#### RE—Reagan-Upton association, 0 to 9 percent slopes

#### **Map Unit Setting**

National map unit symbol: 1w5d Elevation: 1,100 to 5,400 feet

Mean annual precipitation: 6 to 14 inches

Mean annual air temperature: 60 to 64 degrees F

Frost-free period: 180 to 240 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Reagan and similar soils: 70 percent Upton and similar soils: 25 percent Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Reagan**

#### Setting

Landform: Fan remnants, alluvial fans Landform position (three-dimensional): Rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Alluvium and/or eolian deposits

#### Typical profile

H1 - 0 to 8 inches: loam H2 - 8 to 60 inches: loam

#### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

#### Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Ecological site: R070DY153NM - Loamy

Hydric soil rating: No

#### **Description of Upton**

#### Setting

Landform: Ridges, fans

Landform position (three-dimensional): Side slope, rise

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Residuum weathered from limestone

#### **Typical profile**

H1 - 0 to 9 inches: gravelly loam H2 - 9 to 13 inches: gravelly loam H3 - 13 to 21 inches: cemented

H4 - 21 to 60 inches: very gravelly loam

#### Properties and qualities

Slope: 0 to 9 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high

(0.01 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 75 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R070DY159NM - Shallow Loamy

Hydric soil rating: No

#### **Minor Components**

#### **Atoka**

Percent of map unit: 3 percent

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

#### Pima

Percent of map unit: 2 percent

Ecological site: R042XC017NM - Bottomland

Hydric soil rating: No

#### UR—Upton-Reagan complex, 0 to 9 percent slopes

#### Map Unit Setting

National map unit symbol: 1w65 Elevation: 1,100 to 5,400 feet

Mean annual precipitation: 6 to 15 inches

Mean annual air temperature: 60 to 70 degrees F

Frost-free period: 180 to 240 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Upton and similar soils: 55 percent Reagan and similar soils: 35 percent Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Upton**

#### Setting

Landform: Ridges, fans

Landform position (three-dimensional): Side slope, rise

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Residuum weathered from limestone

#### Typical profile

H1 - 0 to 9 inches: gravelly loam H2 - 9 to 13 inches: gravelly loam H3 - 13 to 21 inches: cemented

H4 - 21 to 60 inches: very gravelly loam

#### **Properties and qualities**

Slope: 0 to 9 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high

(0.01 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 75 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R042XC025NM - Shallow

Hydric soil rating: No

#### **Description of Reagan**

#### Setting

Landform: Fan remnants, alluvial fans Landform position (three-dimensional): Rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Alluvium and/or eolian deposits

#### **Typical profile**

H1 - 0 to 8 inches: loam H2 - 8 to 60 inches: loam

#### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

#### Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

#### **Minor Components**

#### Reagan

Percent of map unit: 5 percent

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

#### Pima

Percent of map unit: 5 percent

Ecological site: R042XC017NM - Bottomland

Hydric soil rating: No

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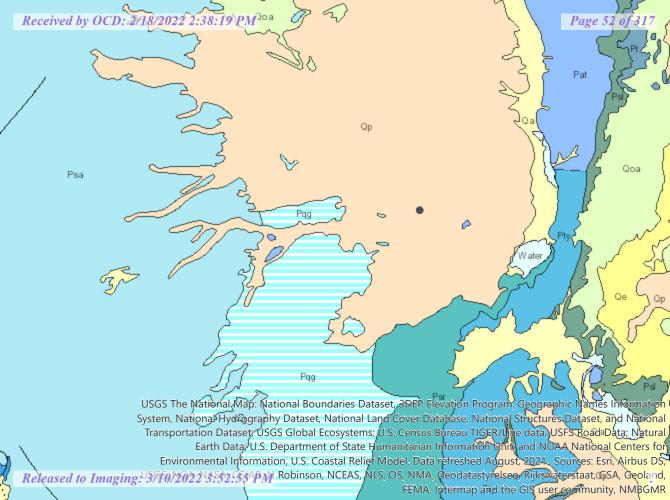
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Closure (	Criteria Worksheet		
ite Nan	e: Warren ANW Federal #6		
•	rdinates:	X: 32.67377	Y: -104.48769
ite Spec	ific Conditions	Value	Unit
1	Depth to Groundwater	95	feet
2	Within 300 feet of any continuously flowing	49,315	feet
2	watercourse or any other significant watercourse	49,313	reet
3	Within 200 feet of any lakebed, sinkhole or playa lake	39,927	feet
3	(measured from the ordinary high-water mark)	39,921	ieet
4	Within 300 feet from an occupied residence, school,	11,481	feet
-	hospital, institution or church	11,401	1661
	i) Within 500 feet of a spring or a private, domestic		
5	fresh water well used by less than five households for	11,481	feet
3	domestic or stock watering purposes, <b>or</b>		
	ii) Within 1000 feet of any fresh water well or spring		feet
	Within incorporated municipal boundaries or within a		
	defined municipal fresh water field covered under a		
6	municipal ordinance adopted pursuant to Section 3-27-	No	(Y/N)
	3 NMSA 1978 as amended, unless the municipality		
	specifically approves		
7	Within 300 feet of a wetland	43,107	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	
10	Within a 100-year Floodplain	>500	year
11	Soil Type	Reagan-Upt	on, Upton-Reagan
12	Ecological Classification		Loamy
13	Geology	QP	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

### **ATTACHMENT 4**

#### SOIL BTEX (EPA 8021), TPH (SW 8015) & CHLORIDE (EPA 300) ANALYTICAL DATA EOG RESOURCES, INC. WARREN ANW FED #6

All values presented in parts per million (mg/Kg)													
SAMPLE ID	DATE	DEPTH (FT)	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C6-C10	TPH DRO C10-C28	TPH MRO C28-C36	TPH (GRO+DRO)	TPH (GRO+DRO+ MRO)	CHLORIDE
September 29, 2021 Site Asse		O'	-0.024	-0.040	-0.040	-0.007	-0.10	-4.0	-10	-50	-10	-50	-50
TH-1/0' TH-1/4'	9/29/2021 9/29/2021	0' 4'	<0.024 <0.024	<0.048 <0.047	<0.048 <0.047	<0.097 <0.095	<0.10 <0.09	<4.8 <4.7	<10 <9.7	<50 <48	<10 <9.7	<50 <48	<59 420
111 1/4	3/23/2021	7	₹0.024	40.047	<b>40.047</b>	40.000	40.00	NT.1	νο	<b>N</b> + 0	<b>40.1</b>	140	420
TH-2/2'	9/29/2021	2'	<0.025	< 0.050	< 0.050	<0.10	<0.10	<5.0	<10	<50	<10	<50	2,100
TH-2/6'	9/29/2021	6'	<0.025	< 0.049	<0.049	<0.098	<0.10	<4.9	<9.6	<48	<9.6	<48	250
TH-3/0'	9/29/2021	0'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.9	<50	<9.9	<50	<60
TH-3/4' TH-3/6'	9/29/2021	4'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<10	<50	<10	<50	1,100
111-3/0	9/29/2021	6'	<0.024	<0.049	<0.049	<0.097	<0.10	<4.9	<9.4	<47	<9.4	<47	280
TH-4/0'	9/29/2021	0'	<0.024	< 0.049	<0.049	<0.097	<0.10	<4.9	<9.5	<47	<9.5	<47	<60
TH-4/3'	9/29/2021	3'	<0.024	< 0.049	<0.049	<0.097	<0.10	<4.9	<9.5	<47	<9.5	<47	930
TH-4/6'	9/29/2021	6'	< 0.023	<0.047	<0.047	< 0.093	<0.09	<4.7	<9.7	<49	<9.7	<49	190
	•	•		1				1			1	1	
TH-5/1'	9/29/2021	1'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.4	<47	<9.4	<47	1,700
TH-5/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<10	<51	<10	<51	890
TH-5/6'	9/29/2021	6'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.1	<45	<9.1	<45	500
TH-6/4'	9/29/2021	4'	<0.024	<0.049	<0.049	<0.098	<0.10	<4.9	<9.6	<48	<9.6	<48	940
TH-6/6'	9/29/2021	6'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.6	<48	<9.6	<48	120
TH-7/0'	9/29/2021	0'	<0.025	<0.050	< 0.050	<0.10	<0.10	<5.0	<9.1	<46	<9.1	<46	<60
TH-7/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.7	<49	<9.7	<49	<60
	T - / /												
TH-8/2'	9/29/2021	2'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<10	<50	<10	<50	1,000
TH-8/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.3	<47	<9.3	<47	800
TH-9/1'	9/29/2021	1'	<0.024	<0.049	<0.049	<0.098	<0.10	<4.9	<9.1	<46	<9.1	<46	3,500
TH-9/6'	9/29/2021	6'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.3	<47	<9.3	<47	290
	1		1	ı				I	ı			ı	
TH-10/2'	9/29/2021	2'	<0.025	<0.050	< 0.050	<0.099	<0.10	<5.0	<9.5	<47	<9.5	<47	1,100
TH-10/4'	9/29/2021	4'	<0.025	<0.049	<0.049	<0.099	<0.10	<4.9	<8.3	<41	<8.3	<41	560
T11.44/01	0/00/0004		0.005	0.050	0.050	0.000	0.40			10		10	
TH-11/0' TH-11/4'	9/29/2021 9/29/2021	0' 4'	<0.025 <0.025	<0.050 <0.049	<0.050 <0.049	<0.099 <0.098	<0.10	<5.0 <4.9	<9.9 <9.7	<49 <48	<9.9 <9.7	<49 <48	<60 120
111-11/4	3/23/2021	4	₹0.025	<0.049	<0.049	<0.090	₹0.10	<4.9	₹9.1	<40	₹9.1	<40	120
TH-12/4'	9/29/2021	4'	<0.024	<0.048	<0.048	< 0.095	<0.10	<4.8	<9.9	<50	<9.9	<50	750
TH-12/6'	9/29/2021	6'	<0.024	< 0.049	<0.049	<0.098	<0.10	<4.9	<9.7	<48	<9.7	<48	350
TH-13/3'	9/29/2021	3'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.8	<49	<9.8	<49	860
TH-13/6'	9/29/2021	6'	<0.025	<0.049	<0.049	<0.098	<0.10	<4.9	<10	<50	<10	<50	420
TH-14/1'	9/29/2021	1'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.9	<49	<9.9	<49	2,100
TH-14/4'	9/29/2021	4'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<10	<50	<10	<50	520
	0/20/2021		10.020	40.000	40.000	10.000	40.10	40.0	110	100	110	400	020
TH-15/1'	9/29/2021	1'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.9	<50	<9.9	<50	130
TH-15/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.8	<49	<9.8	<49	310
	•	•		ı				ı				1	•
TH-16/1'	9/29/2021	1'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.8	<49	<9.8	<49	<60
TH-16/4'	9/29/2021	4'	<0.024	<0.049	<0.049	<0.097	<0.10	<4.9	<9.9	<50	<9.9	<50	490
TH-17/1'	9/29/2021	1'	<0.024	<0.047	<0.047	<0.095	<0.09	<4.7	<9.9	<50	<9.9	<50	<60
TH-17/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.5	<47	<9.5	<47	300
	J J J J										.5.0		
TH-18/1'	9/29/2021	1'	<0.025	<0.049	<0.049	<0.098	<0.10	<4.9	<9.7	<48	<9.7	<48	<59
TH-18/4'	9/29/2021	4'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.8	<49	<9.8	<49	160
			1									1	1
TH-19/1' TH-19/4'	9/29/2021	1'	<0.024	<0.047	<0.047	<0.095	<0.09	<4.7	<9.7	<49	<9.7	<49	<3.0
I II-19/4	9/29/2021	4'	<0.025	<0.049	<0.049	<0.099	<0.10	<4.9	<9.4	<47	<9.4	<47	<59
TH-20/1'	9/29/2021	1'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.8	<49	<9.8	<49	<60
TH-20/4'	9/29/2021	4'	<0.025	<0.049	<0.049	<0.098	<0.10	<4.9	<10	<50	<10	<50	<60
19.15.29.12 NMAC Table 1 C			10				50					100	600
Impacted by a Rele	-	-											
	19.15.29.13 NMAC Reclamation Criteria (0'-4' Soils Only)						<b>50</b> <sup>3</sup>					100 <sup>3</sup>	600

Notes:

<sup>1.</sup> Results exceeding the Table 1 Closure Criteria are presented in bold type and are highlighted yellow.

<sup>2.</sup> Results exceeding the NMAC Restoration, Reclamation and re-vegetation chloride concentration requirements are presented in bold red type.

<sup>3.</sup> Value derived from the State of New Mexico Energy, Minerals and Natural Resources Department document Procedures for the Implementation of the Spill Rule (19.15.29 NMAC) dated September 6, 2019.

Client Name: EOG Resources, Inc. Site Name: Warren ANW Federal #6 NM OCD Tracking #: nAPP2129353745

Project #: 22E-00123-011

	Sample Descri-	ation	F:			1	Depth to G			carbons			1
-	Sample Descrip	otion		eld Screeni	ing	Vol	atile	Petroie	um Hydro	carpons Extractable	<u> </u>		Inorgani
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BES21-01	4	11/3/2021	0	- 15	<b>1,291</b> 399	-	-	-	-	-	-	-	-
BES21-01	6	11/3/2021	0	15						-			_
BES21-02 BES21-02	2	11/3/2021 11/3/2021	0	-	916 942	-	-	-	-	-	-	-	-
BES21-02	6	11/3/2021	0	20	173	-	-	-	-	-	-	-	-
BES21-02	2	11/3/2021	0	-	1,206	-	-	-	-	_	-	-	_
BES21-03	4	11/3/2021	0	-	1,157	-	-	-	-	_	_	_	-
BES21-03	6	11/3/2021	0	28	158	-	-	-	-	-	-	-	-
BES21-04	2	11/3/2021	0	-	1,433	-	-	-	-	-	-	-	-
BES21-04	4	11/3/2021	0	-	2,088	-	-	-	-	-	-	-	-
BES21-04	6	11/4/2021	0	20	519	-	-	-	-	-	-	-	-
BES21-05	4	11/4/2021	0	-	848	-	-	-	-	-	-	-	-
BES21-05	6	11/4/2021	0	5	268	-	-	-	-	-	-	-	-
BES21-06	4	11/5/2021	0	10	594	-	-	-	-	-	-	-	-
BES21-07	4	11/5/2021	0	30	379	-	-	-	-	-	-	-	-
BES21-08	4	11/5/2021	0	25	513	-	-	-	-	-	-	-	-
BES21-09	4	11/9/2021	0	20	485	-	-	-	-	-	-		-
BES21-10	2	11/9/2021	0	-	1,257	-	-	-	-	-	-	-	-
BES21-10	4	11/9/2021	0	17	242	-	-	-	-	-	-	-	-
WES21-01	2	11/3/2021	0	-	275	-	-	-	-	-	-	-	-
WES21-02	2	11/3/2021	0	-	417 431	-	-	-	-	-	-	-	-
WES21-03	2	11/3/2021	0	-	229	-	-	-	-	-	-	-	
WES21-04 WES21-05	1	11/3/2021 11/3/2021	0	-	483	-	-	-	-	-	-	-	-
WES21-05 WES21-06	1	11/3/2021	0	-	903	-	-	-	-	-	-	_	_
WES21-07	1	11/3/2021	0	-	1,770	-	-	-	-	-	-	-	-
WES21-07	2	11/3/2021	0	-	421	-	-	-	-	-	-	-	-
WES21-09	2	11/3/2021	0	-	2,045	-	-	-	-	-	-	-	-
WES21-10	3	11/4/2021	0	-	2,182	-	-	-	-	-	-	-	-
WES21-11	3	11/4/2021	0	-	1,428	-	-	-	-	-	-	-	-
WES21-12	3	11/4/2021	0	-	1,132	-	-	-	-	-	-	-	-
WES21-13	3	11/4/2021	0	-	943		-	-	-	-	-		
WES21-14	3	11/4/2021	0	-	471	-	-	-	-	-	-	-	-
WES21-15	3	11/4/2021	0	-	956	-	-	-	-	-	-	-	-
WES21-16	3	11/4/2021	0	-	773	-	-	-	-	-	-	-	-
WES21-17	3	11/4/2021	0	-	1,065	-	-	-	-	-	-	-	-
WES21-18	3	11/4/2021	0	-	370	-	-	-	-	-	-	-	-
WES21-19	3	11/4/2021	0	-	456	-	-	-	-	-	-	-	-
WES21-20	2	11/5/2021	0	0	441 <b>811</b>	-	-	-	-	-	-	-	-
WES21-21	2	11/5/2021	0	-	795	-	-	-	-	-	-	-	-
WES21-22	2	11/5/2021 11/5/2021	0	-	858	-	-	-	-	-	-	-	-
WES21-23 WES21-24	2	11/5/2021	0	-	386	-	-	-	-	-	-	-	-
WES21-24 WES21-25	2	11/5/2021	0	-	522	-	-	-	-	-	-	-	-
WES21-26	2	11/5/2021	0	-	469	-	-	-	-	-	-	-	-
WES21-27	2	11/5/2021	0	-	368	-	-	-	-	-	-	-	-
WES21-28	2	11/5/2021	0	-	1,180	-	-	-	-	-	-	-	-
WES21-29	3	11/5/2021	0	-	1,128	-	-	-	-	-	-	-	-
WES21-30	2	11/5/2021	0	-	1,075	-	-	-	-	-	-	-	-
WES21-31	2	11/5/2021	0	-	1,112	-	-	-	-	-	-	-	-
WES21-32	2	11/5/2021	0	-	1,075	-	-	-	-	-	-	-	-
WES21-33	2	11/5/2021	0	-	1,166								



WES21-31	2	11/5/2021	0	-	1,112	-	-	-	-	-	-	-	-
WES21-32	2	11/5/2021	0	-	1,075	ı	-	-	-	-	-	-	-
WES21-33	2	11/5/2021	0	-	1,166								

"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria



Client Name: EOG Resources, Inc. Site Name: Warren ANW Federal #6 NM OCD Tracking #: nAPP2129353745

Project #: 22E-00123-011

Lab Reports: 2111A01, 2111A66, 2111B17, 2111B99, 2201647, 2202639

		Tabl	e 3. Confir	matory Sa	mple Fiel	d Screen a	nd Labora	atory Resu	ılts - Deptl	n to Groun	dwater <	0 feet bg	5			
	Sample Descrip	otion	Fi	eld Screeni	ng				P	etroleum F	lydrocarbo	ns				
			ds					Volatile					Extractable	9		Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds	Extractable Organic  Compounds (PetroFlag)	(mage) Chloride Concentration	Benzene (mg/kg)	Toluene (mg/kg)	(88/8a)	may   xylenes (Total)	BBTEX (Total)	ন্ত্ৰ Gasoline Range Organics স্থ (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics	(mg/kg)	Total Petroleum	(함께 Chloride Concentration
BES21-01	6	11/17/2021	0	38	572	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350
BES21-02	4	11/17/2021	0	3	464	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	480
BES21-03	4	11/17/2021	0	28	484	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	480
BES21-04	4	11/17/2021	0	47	440	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
BES21-05	4	11/17/2021	0	54	467	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	87
BES21-06	4	11/17/2021	0	0	373	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
BES21-07	4	11/17/2021	0	33	427	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150
BES21-08	4	11/17/2021	0	31	461	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	980
BES21-08	6	11/23/2021	0	-	421	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BES21-09	4	11/17/2021	0	29	438	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1300
BES21-09	6	11/23/2021	0	-	415	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BES21-10	4	11/17/2021	0	30	405	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	210
BES21-11	4	11/17/2021	0	9	398	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	67
BES21-12	6	11/17/2021	0	0	253	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	240
BES21-13	6	11/17/2021	0	34	381	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
BES21-14	6	11/17/2021	0	0	461	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	260
BES21-15	6	11/17/2021	0	21	457	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	510
BES21-16	4	11/17/2021	0	8	414	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
BES21-16	6	11/23/2021	0	-	479	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150
BES21-17	4	11/17/2021	0	26	411	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	690
BES21-17	6	11/23/2021	0	-	460	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150
BES21-18	4	11/17/2021	0	31	428	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	580
BES21-19	4	11/17/2021	0	12	308	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
BES21-20	4	11/17/2021	0	5	297	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
BES21-21	4	11/18/2021	0	21	493	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
BES21-22	4	11/18/2021	0	30	591	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BES21-23	6	11/18/2021	0	32	513	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350



| BES21-24 | 6 | 11/18/2021 | 0 | 28 | 513 | ND | 250 |
|----------|---|------------|---|----|-----|----|----|----|----|----|----|----|----|----|----|-----|
| BES21-25 | 4 | 11/18/2021 | 0 | 40 | 596 | ND | 170 |
| BES21-26 | 4 | 11/18/2021 | 0 | 52 | 542 | ND | 510 |
| BES21-27 | 4 | 11/18/2021 | 0 | 22 | 549 | ND | 140 |
| BES21-28 | 6 | 11/18/2021 | 0 | 18 | 571 | ND  |
| BES21-29 | 6 | 11/18/2021 | 0 | 5  | 596 | ND  |
| BES21-30 | 4 | 11/22/2021 | 0 | 18 | 508 | ND  |
| BES21-31 | 4 | 11/22/2021 | 0 | 34 | 402 | ND  |
| BES21-32 | 6 | 11/22/2021 | 0 | 39 | 372 | ND  |
| BES21-33 | 4 | 11/23/2021 | 0 | -  | 297 | ND  |
| BES21-34 | 4 | 11/23/2021 | 0 | -  | 383 | ND  |
| BES21-35 | 4 | 11/23/2021 | 0 | -  | 389 | ND  |
| BES21-36 | 4 | 11/23/2021 | 0 | -  | 515 | ND  |
| BES21-37 | 6 | 11/23/2021 | 0 | -  | 212 | ND  |
| BES21-38 | 6 | 11/23/2021 | 0 | -  | 304 | ND  |
| BES21-39 | 6 | 11/23/2021 | 0 | -  | 440 | ND  |
| BES21-40 | 6 | 11/23/2021 | 0 | -  | 508 | ND  |
| BES22-41 | 4 | 2/11/2022  | 0 | 61 | 508 | ND | 220 |
| BES22-42 | 4 | 2/11/2022  | 0 | 29 | 466 | ND | 310 |
| BES22-43 | 4 | 2/11/2022  | 0 | 74 | 557 | ND | 320 |
| BES22-44 | 4 | 2/11/2022  | 0 | 45 | 562 | ND | 330 |
| WES21-01 | 3 | 11/18/2021 | 0 | 21 | 518 | ND | 210 |
| WES21-02 | 2 | 11/18/2021 | 0 | 5  | 241 | ND | 230 |
| WES21-03 | 2 | 11/18/2021 | 0 | 9  | 432 | ND | 170 |
| WES21-04 | 2 | 11/18/2021 | 0 | 10 | 542 | ND  |
| WES21-05 | 2 | 11/18/2021 | 0 | 0  | 535 | ND  |
| WES21-06 | 3 | 11/18/2021 | 0 | 2  | 106 | ND | 490 |
| WES21-07 | 3 | 11/18/2021 | 0 | 0  | 148 | ND | 120 |
| WES21-08 | 3 | 11/18/2021 | 0 | 5  | 248 | ND  |
| WES21-09 | 3 | 11/18/2021 | 0 | 9  | 330 | ND | 310 |
| WES21-10 | 3 | 11/18/2021 | 0 | 20 | 178 | ND  |
| WES21-11 | 3 | 11/18/2021 | 0 | 18 | 125 | ND  |
| WES21-12 | 3 | 11/19/2021 | 0 | 29 | 262 | ND  |
| WES21-13 | 3 | 11/19/2021 | 0 | 42 | 575 | ND | 69  |
| WES21-14 | 3 | 11/19/2021 | 0 | 18 | 375 | ND | 390 |
| WES21-15 | 3 | 11/19/2021 | 0 | 5  | 588 | ND | 84  |
| WES21-16 | 3 | 11/19/2021 | 0 | 6  | 578 | ND | 100 |
| WES21-17 | 3 | 11/19/2021 | 0 | 10 | 567 | ND | 150 |
| WES21-18 | 3 | 11/19/2021 | 0 | 11 | 578 | ND | 180 |
| WES21-19 | 3 | 11/19/2021 | 0 | 22 | 554 | ND | 200 |
| WES21-20 | 3 | 11/19/2021 | 0 | 46 | 548 | ND  |
| WES21-21 | 3 | 11/19/2021 | 0 | 19 | 551 | ND  |
| WES21-22 | 2 | 11/19/2021 | 0 | 4  | 587 | ND  |
| WES21-23 | 2 | 11/19/2021 | 0 | 25 | 515 | ND  |
| WES21-24 | 2 | 11/19/2021 | 0 | 21 | 542 | ND  |



WES21-25	2	11/19/2021	0	30	588	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-26	2	11/19/2021	0	41	533	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-27	2	11/22/2021	0	54	471	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-28	2	11/22/2021	0	23	366	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-29	2	11/22/2021	0	41	424	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-30	2	11/22/2021	0	39	391	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-31	2	11/22/2021	0	13	405	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-32	2	11/22/2021	0	6	448	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-33	2	11/22/2021	0	12	368	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES21-34	2	11/22/2021	0	23	479	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES22-35	3	1/14/2022	0	20	230	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WES22-36	3	1/14/2022	0	14	253	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
			No	orth excvati	ion sidewal	ll pit sampl	es that we	re collected	l for docum	nentation p	urposes					
WES22-37	3	2/11/2022	-	-	-	ND	ND	ND	ND	ND	ND	47	ND	47	47	6,100
WES22-38	3	2/11/2022	-	-	-	ND	ND	ND	ND	ND	ND	61	ND	61	61	6,200
WES22-39	3	2/11/2022	-	-	-	ND	ND	ND	ND	ND	ND	29	ND	29	29	6,200
WES22-40	3	2/11/2022	-	-	-	ND	ND	ND	ND	ND	ND	64	ND	64	64	5,800

<sup>&</sup>quot;ND" Not Detected at the Reporting Limit

Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (excavated)



<sup>&</sup>quot;-" indicates not analyzed/assessed

### **ATTACHMENT 5**

#### **Monica Peppin**

From: Chase Settle < Chase\_Settle@eogresources.com>
Sent: Wednesday, November 24, 2021 10:23 AM

**To:** Michael Moffitt; Monica Peppin

Cc: Dennis Williams

**Subject:** FW: Warren ANW Federal #6 (nAPP2129353745) Sampling Notification

From: Yolanda Ybarra < Yolanda\_Ybarra@eogresources.com>

Sent: Wednesday, November 24, 2021 8:49 AM

To: Rob Hamlet <rob\_hamlet@eogresources.com>; blm\_nm\_cfo\_spill@blm.gov; ahowell@pvtn.net

Cc: Artesia Regulatory <Artesia Regulatory@eogresources.com>; BODEE EUDY <BODEE EUDY@eogresources.com>;

Chase Settle <Chase\_Settle@eogresources.com>; Katie Jamison <Katie\_Jamison@eogresources.com>

Subject: FW: Warren ANW Federal #6 (nAPP2129353745) Sampling Notification

Good morning,

EOG Resources, Inc. respectfully submits changes to original notification of sampling activities to be conducted at the below location.

Warren ANW Federal #6 J-9-19S-25E Eddy County, NM nAPP2129353745

Sampling will begin at 8:00 a.m. on December 1, 2021, and be continuous as the excavation progresses.

Thank you,



### Yolanda A. Ybarra

Sr. Regulatory Assistant Artesia Division 104 S. 4<sup>th</sup> Street Artesia, NM 88210 (575) 748-4329 Office (575) 703-1882 Cell

From: Miriam Morales < Miriam Morales@eogresources.com >

Sent: Tuesday, November 23, 2021 4:29 PM

To: Robert.Hamlet@state.nm.us; blm nm cfo spill@blm.gov; ahowell@pvtn.net

Cc: Artesia Regulatory <Artesia Regulatory@eogresources.com>; BODEE EUDY <BODEE EUDY@eogresources.com>;

Chase Settle < <a href="mailto:Chase">Chase Settle@eogresources.com">Subject: Warren ANW Federal #6 (nAPP2129353745) Sampling Notification</a>

Good Afternoon,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below location.

Warren ANW Federal #6 J-9-19S-25E Eddy County, NM nAPP2129353745

Sampling will begin at 8:00 a.m. on December 1, 2021.

Thank you,

Miriam Morales

#### **Chance Dixon**

From: Chase Settle < Chase\_Settle@eogresources.com>

**Sent:** February 8, 2022 7:30 AM

To: Michael Moffitt

**Subject:** FW: Warren ANW Federal 6 (nAPP2129353745) Sampling Notification

From: Tina Huerta <Tina\_Huerta@eogresources.com>

Sent: Tuesday, February 8, 2022 7:01 AM

To: Robert.Hamlet@state.nm.us; camorgan@blm.gov; Alan & Cheryl <ahowell@pvtn.net>; Austin Weyant

<austin@atkinseng.com>

Cc: Andrea Felix < Andrea\_Felix@eogresources.com >; Katie Jamison < Katie\_Jamison@eogresources.com >; BODEE EUDY

<BODEE\_EUDY@eogresources.com>; Michael Yemm <Michael\_Yemm@eogresources.com>

Subject: Warren ANW Federal 6 (nAPP2129353745) Sampling Notification

Good Morning,

EOG Resources, Inc. respectfully submits notification of sampling to be conducted at the below location.

Warren ANW Federal 6 nAPP2129353745

Sampling will begin at 8:00 a.m. on Friday, February 11, 2022, and be continuous through Tuesday, February 15, 2022.

Thank you,

Tina Huerta

Regulatory Specialist

Direct. 575.748.4168

Cell: 575.703.3121

Email: tina huerta@eogresources.com

**o**eog resources

**Artesia Division** 

### **ATTACHMENT 6**



Client:	EOG Resources Inc.	Inspection Date:	11/1/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/2/2021 12:09 AM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	11/1/2021 8:30 AM		
Departed Site	11/1/2021 5:00 PM		

**Field Notes** 

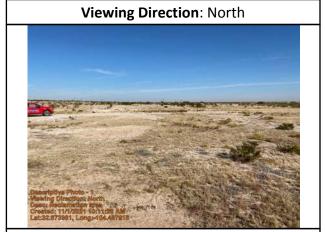
- 9:07 Arrived on site to begin remediation/reclamation process
- 9:07 Standard safety will spend most of the day putting a fence around the pad, mud pit, and road.
- 10:10 Standard safety is on site and starting the fence at the end of the road and working their way up to the pad
- 16:36 Fence posts put up along south side of road and around to east side of pad
- **16:36** Standard currently running fence posts on north side and around north side of pad and mud pit to tie into where they stopped on east side

### **Next Steps & Recommendations**

1



#### **Site Photos**



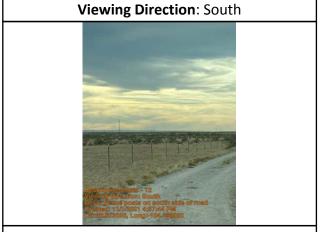
Reclamation area



Standard safety beginning with installing gate at the end of the road

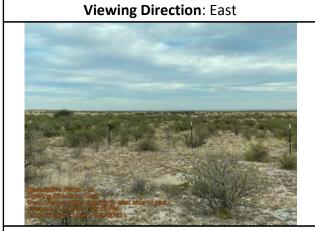


End of electric line on south edge of pad



Fence posts on south side of road



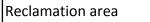


Fence posts coming to east side of pad



Reclamation area







Reclamation area/mud pit





Reclamation area/mud pit



Reclamation area/mud pit



Reclamation area on pad



Line near north edge of pad







#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:



Client:	EOG Resources Inc.	Inspection Date:	11/2/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/3/2021 1:16 AM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	11/2/2021 8:10 AM		
Departed Site	11/2/2021 5:00 PM		
		Field Not	es

- 8:39 Arrived on site to continue overseeing standard safety building fence around location and road leading to it
- **8:39** Front end loader is expected to arrive on site late in the morning and trackhoe is expected this afternoon.
- **8:40** Could possibly start excavation and field screening late in the afternoon.
- 10:56 This morning the access gate to the site was found to be open. I closed it on the way to the site. The crew from Standard Safety said that they found it to be open when they got there as well and they left it how they found it. I had a meeting with them and made sure they understand that it is to be locked at all times.
- 15:47 Wire on the fence around the location, mud pit, and road is almost complete

#### **Next Steps & Recommendations**

1 Begin excavation tomorrow



#### **Site Photos**



Fence line on northeast corner of pad



Fence line near northwest corner of pad



Fence line north of mud pit

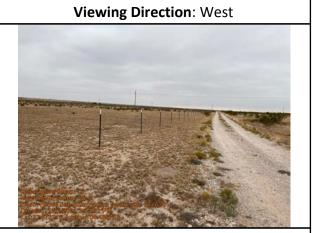


Fence line near southeast corner of pad





Fence line south of pad



Fence line going down south side of road



Trackhoe and loader on site for dig tomorrow



Gate closed and locked heading out



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:





Client:	EOG Resources Inc.	Inspection Date:	11/3/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/3/2021 9:45 PM	
Client Contact Name:	Chase Settle	API#:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/3/2021 7:40 AM			
Departed Site	11/3/2021 4:00 PM			
Field Notes				

- 7:33 Arrived at access gate same time as Standard. Gate was open when we got here. Closed and locked it behind me.
- **12:31** Began excavation down to 4ft on northeast corner of spill. Ran WES21-01-WES21-03 and BES21-01. BES21-01 is dirty at 4ft. Taking this section down to 6ft. BES21-01 clean at 6ft
- **12:32** Collected and ran BES21-02-BES21-03. And WES21-04-WES21-07. WES21-04-WES21-05 are clean. Stepping out WES21-06-WES21-07 and digging deeper on bases
- 13:32 Stepped out WES21-06 with WES21-08. All clean.
- 13:32 Stepped WES21-07 with WES21-09 at an angle toward well head. Still dirty.
- **14:39** BES21-04 is being brought down to 6ft

#### **Next Steps & Recommendations**

1 Delineate wall for WES21-09 and move to west side of pad.



#### **Site Photos**

Viewing Direction: East



Gate closed and locked at arrival.



Sample area for BES21-02-BES21-03 and WES21-04-WES21-07

Viewing Direction: North



Top 2ft near BES21-01 is topsoil. Below that is caliche.

#### Viewing Direction: Northwest



Top 2ft is still topsoil and caliches underneath

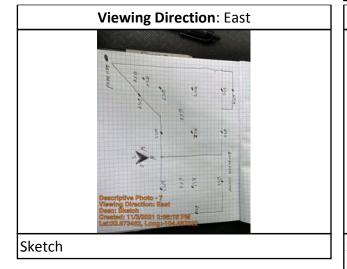




Sample area for BES21-04 and WES21-09



WES21-01-WES21-08 and BES21-01-BES21-03 are all down to 6ft so far





Soil appears to be topsoil down to 2ft, then caliche down to 4ft, and aggregate down to 6ft



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature: Signature



Client:	EOG Resources Inc.	Inspection Date:	11/4/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/4/2021 10:48 PM	
Client Contact Name:	Chase Settle	API #:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/4/2021 8:00 AM			
Departed Site	11/4/2021 3:30 PM			
		Field Not	es	

- **10:04** Arrived on site to continue remediation.
- **10:05** Trying to step out WES21-09 with WES21-10 and WES21-11. Still dirty and trying to delineate that wall before moving to west side of spill.
- 11:11 Wall for WES21-09 was stepped out to WES21-14. All clean and moving to west side of spill to begin excavation there
- 14:06 Ran BES21-05 and WES21-15-WES21-17. All dirty
- 14:06 Took BES21-05 down to 6ft. All clean. Stepped WES21-15 and WES21-16 out a foot. All clean.
- 14:07 WES21-17 is being left alone for now because it is about 4ft away from pipeline. Can't step out at the moment.

#### **Next Steps & Recommendations**

1 Continue remediation tomorrow



#### **Site Photos**



Sample area for WES21-14





Viewing Direction: North

Beginning excavation on west side of spill



Sample area for WES21-15





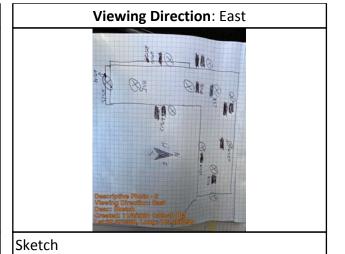
Sample area for WES21-16



Sample area for WES21-17



WES21-17 and pipeline



Run on 11/4/2021 10:48 PM UTC Powered by www.krinkleldar.com Page 3 of 5





Soil appears to be mostly aggregate with some caliche 0-4ft down



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature: Signature

**Departed Site** 

## **Daily Site Visit Report**



Client:	EOG Resources Inc.	Inspection Date:	11/5/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/5/2021 10:13 PM	
Client Contact Name:	Chase Settle	API#:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/5/2021 8:25 AM			

#### **Field Notes**

10:10 Arrived on site to continue remediation on west side of pad

11/5/2021 3:15 PM

- 10:11 Ran BES21-06-WES21-08 and WES21-20-WES21-25. All but WES21-21-WES21-23 were clean.
- **10:11** WES21-21 is about four feet from the pipeline. Beginning to step out WES21-22-WES21-23
- 11:31 Stepped out WES21-22-WES21-23 with WES21-26-WES21-27. All clean
- 11:32 Moved back to east side of well head. Starting with WES21-28 and stepping it out
- 14:33 160 yards hauled off today and 120 yards hauled off yesterday (11/4)

#### **Next Steps & Recommendations**

1 Come back next week to delineate wall for WES21-28 and continue excavation south



#### **Site Photos**



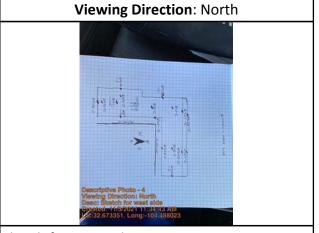
Sample area for WES21-21



Sample area for WES21-26-WES21-27



Sample area for WES21-22-WES21-23



Sketch for west side





WES21-28 stepped out to WES21-33. Not clean



Excavation on east side



Excavation on west side



Stockpile.



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:



Client:	EOG Resources Inc.	Inspection Date:	11/8/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/8/2021 11:44 PM	
Client Contact Name:	Chase Settle	API #:		
Client Contact Phone #:	575-703-6537			
Unique Project ID	_	Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/8/2021 8:00 AM			
Departed Site	11/8/2021 11:30 AM			
Field Notes				

**10:46** 0815: JSA and contractor meetings with all field personnel (truck drivers included)

- Signed Standards JSA
- Dennis Williams also on site.
- Gate procedure and Howell Ranch access stipulations/expectations were reviewed

0830-0930: 160 YDS of Chloride contaminated soil removed off site for disposal at Leland.

0845: Excavation review with Dennis

0900: NMOCD spill review

0930: Dennis off site.

#### **Next Steps & Recommendations**

1 8 bellies at 20 yds per truck hauled out 160 YDS at 0830 of chloride impacted material to Leland. They will hopefully haul out 2 more loads per vehicle before the end of the day. That would put us at 480 yards hauled with a remaining 200 yards left on stockpile (estimated). Chance will resume digging towards the middle of the pad and remaining chloride impacted area tomorrow. Field screens will be taken via titration only in order to prep for confirmation sampling on Monday of next week (tentative).



#### **Site Photos**



Stockpile Photo



Stockpile full extent. 8 bellies in and out of site total.



East side excavation perimeter.



East side excavation extent.





Stockpile and excavation movement towards the middle/dry hole marker.



Pit area/future clay liner location and extent



West side excavation full overview.



East SW 4' out from an abandoned 3" Steel line from the former we'll head is still hot. Waiting on approval by EOG to step out closer or have the line removed.





West excavation trench Furthest extent laterally N/S.



Access road and new gate location



#### **Daily Site Visit Signature**

**Inspector:** Mike Moffitt

Signature: MMofM



Client:	EOG Resources Inc.	Inspection Date:	11/9/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/9/2021 10:56 PM	
Client Contact Name:	Chase Settle	API #:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/9/2021 8:15 AM			
Departed Site	11/9/2021 3:00 PM			
Field Notes				

- **10:43** Arrived on site to continue remediation.
- **10:45** Began stepping west wall of east excavation out. Ran samples BES21-09 and WES21-34-WES21-35. WES21-34-WES21-35 were dirty but are near the mud pit and pipeline. Cannot excavate around pipeline until we have clearance.
- 10:45 360 yards were hauled off yesterday with Mike Moffitt on site.
- **12:38** EOG foreman arrived on site and let us know that pipeline is going to be removed in the near future. The time it will take place is undetermined
- **12:58** 320 yards hauled off today. Bringing the total to 960 for the remediation.
- **14:12** WES21-28 has been stepped out to WES21-39 and still high on chlorides. Going to step it out another 10ft to see if it's clean and if not we will connect the two excavations.

#### **Next Steps & Recommendations**

1 Continue remediation and haul tomorrow



#### **Site Photos**





Sample are for BES21-09 and WES21-34-WES21-35

#### Viewing Direction: North



Soil for sample area is topsoil down to 2ft, caliche down to 4ft, and aggregate on the bottom

### Viewing Direction: West



Viewing Direction: East



Stockpile





WES21-28 being stepped out to WES21-39



Operator working on digging side wall another 10ft and will be sampled tomorrow



North wall getting close to mud pit and won't be delineated further



Excavation



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:

#### **Next Steps & Recommendations**

1 Begins sampling on south end tomorrow and continue excavation to the north

Run on 11/11/2021 12:19 AM UTC

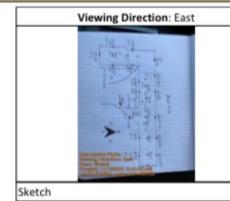
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Page 1 of 4

### **Daily Site Visit Report**



#### **Site Photos**



Viewing Direction: Southwest



Stockpile and trucks being loaded



Both excavations are now connected



Stockpile





Stockpile being moved east



Beginning on south end working north.



Excavation is being kept on east side as much as possible to make sure equipment can get to the pipeline when it is removed



Soil appears to be topsoil 3ft down with 6in of caliche on top. Aggregate soil at 4ft

Run on 11/11/2021 12:19 AM UTC Powered by www.krinkleldar.com Page 3 of 4

### **Daily Site Visit Report**



**Daily Site Visit Signature** 

Inspector: Chance Dixon

Signature:





Client:	EOG Resources Inc.	Inspection Date:	11/12/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/12/2021 8:50 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	<b>Times</b>
Arrived at Site	11/12/2021 8:00 AM		
Departed Site			
		Field Note	es

9:40 Arrived on site to continue excavation.

**9:41** Digging enough to still have room for pipeline removal. Will sample it Monday. After that we will focus on getting some of the contaminated soil hauled off. 10 trucks are running today so we should get 400 yards out.

#### **Next Steps & Recommendations**

1 Sample 4ft area on Monday and continue remediation



#### **Site Photos**

Viewing Direction: Northwest



Current excavation

Viewing Direction: West



Two water trucks bringing two loads each for the road

Viewing Direction: West



North end of south excavation

Viewing Direction: Northeast



Current south excavation





Sample area for Monday



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:



Client:	EOG Resources Inc.	Inspection Date:	11/15/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/15/2021 11:30 PM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	11/15/2021 8:45 AM		
Departed Site	11/15/2021 3:00 PM		

#### **Field Notes**

- **9:57** Arrived on site to continue remediation.
- 9:57 Collected BES21-15-BES21-16 and WES21-47-WES21-48. All clean except WES21-47. Stepping it out 3ft
- 10:47 Stepped WES21-47 out to WES21-50. All clean
- 11:21 Pipeline has not been removed. Will have to wait for it before we can continue south excavation to the north
- 11:26 Now focusing on getting north wall as close to the liner from the mud pit as possible

#### **Next Steps & Recommendations**

1 Continue excavation to the north when pipeline is removed



#### **Site Photos**

Viewing Direction: North



Sample area for BES21-15-BES21-16 and WES21-47-WES21-48

Viewing Direction: North



Stepped out WES21-47 3ft

### Viewing Direction: Northwest



WES21-50 sample area

#### Viewing Direction: West

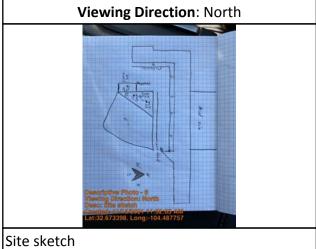


10 trucks hauling today. Will get about 400 yards out





Extending north wall to the liner from the mud





Extending north wall to the liner from the mud pit



Run on 11/15/2021 11:30 PM UTC Powered by www.krinkleldar.com Page 3 of 4



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:



Client:	EOG Resources Inc.	Inspection Date:	11/16/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/17/2021 12:53 AM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	11/16/2021 8:00 AM		
Departed Site	11/16/2021 5:00 PM		
Unique Project ID Project Reference #  Arrived at Site	11/16/2021 8:00 AM	Project Manager:	Times

#### **Field Notes**

- 10:15 Arrived on site to continue remediation. Taking the south excavation to as close to the pipeline and north excavation as possible.
- **10:15** Eight trucks total today. Working on getting another two. Will haul out 360-400 yards today.
- **12:26** Collected and ran BES21-17-BES21-19 at 4ft and WES21-51-WES21-52. Both wall samples and BES21-17 are dirty. Sample area for BES21-17 will be taken down to 6ft and walls will be stepped out
- 15:17 BES21-17 still a tad hot at 6ft. Not digging deeper
- 15:17 WES21-52 was stepped out to WES21-54. All clean
- 15:53 WES21-51 stepped out to WES21-53. All clean

#### **Next Steps & Recommendations**

1 Step out last dirty wall of excavation on west side tomorrow. Begin confirmation sampling



## **Site Photos**

Viewing Direction: East



Wall being extended to approximately 3-4ft away from pipeline

Viewing Direction: East



Wall being brought to white flagging

## **Viewing Direction**: Southeast



South excavation

Viewing Direction: Northeast



The two excavations lack about 8-10ft to be linked





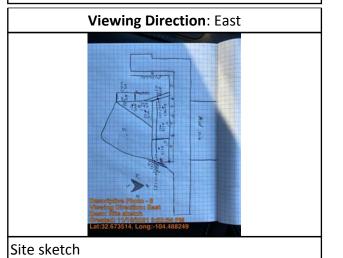
Digging around dry well head



Sample area for BES21-17-BES21-19 and WES21-51-WES21-52



Sample area for BES21-17 being brought down to 6ft



Run on 11/17/2021 12:53 AM UTC Powered by www.krinkleldar.com Page 3 of 4



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



11/17/2021 Client: EOG Resources Inc. Inspection Date: Warren ANW Federal #6 Report Run Date: 11/17/2021 11:46 PM Site Location Name: Chase Settle API#: Client Contact Name: Client Contact Phone #: 575-703-6537 **Unique Project ID** Project Owner: Project Reference # Project Manager:

Summary of Times			
Arrived at Site	11/17/2021 8:50 AM		
Departed Site	11/17/2021 3:44 PM		

#### **Field Notes**

- 9:31 Arrived on site to begin confirmation sampling
- **9:32** Beginning 20 base samples along the north excavation
- 12:49 Collected BES21-01-BES21-20
- 13:41 BES21-01-BES21-16 are all clean on EC, PID, and PetroFlag
- 14:44 BES21-17-BES21-20 are all clean on EC, PID, and PetroFlag

## **Next Steps & Recommendations**

1 Continue confirmation sampling tomorrow



#### **Site Photos**



Sample area for BES21-01-BES21-03



Ten trucks hauling today. Getting 400 yards hauled off. Total will be 3,240.



Sample area for BES21-04-BES21-08



Sample area for BES21-09-BES21-11





Sample area for BES21-12-BES21-14



Sample area for BES21-15





Sample area for BES21-16-BES21-20 near the wall



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



Client:	EOG Resources Inc.	Inspection Date:	11/18/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/19/2021 12:00 AM	
Client Contact Name:	Chase Settle	API#:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/18/2021 9:00 AM			
Departed Site	11/18/2021 3:45 PM			

#### **Field Notes**

- **9:11** Arrived on site to continue confirmation sampling.
- 11:44 Collected BES21-21-BES21-29. All clean on EC, PID, and PetroFlag
- 14:43 WES21-01-WES21-11 are all clean on EC, PID, and PetroFlag
- **14:54** 160 yards were hauled out today. Bringing the total to 3,340 yards total. Yesterday's DFR showed 40 yards more than what we actually have hauled off

## **Next Steps & Recommendations**

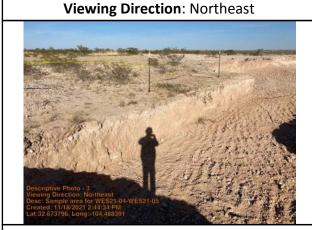
1 Continue confirmation sampling tomorrow



#### **Site Photos**



Sample area for BES21-21-BES21-29



Sample area for WES21-04-WES21-05

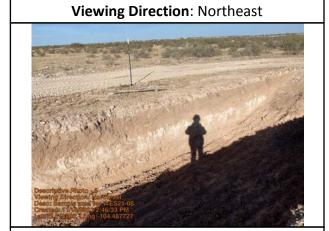


Sample area for WES21-01-WES21-03



Sample area for WES21-06-WES21-07





Sample area for WES21-08



Sample area for WES21-09



Sample area for WES21-10-WES21-11



No stockpile left after hauling today



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon

**Departed Site** 

## **Daily Site Visit Report**



11/19/2021 Client: EOG Resources Inc. Inspection Date: Warren ANW Federal #6 Report Run Date: 11/19/2021 11:00 PM Site Location Name: Chase Settle API#: Client Contact Name: Client Contact Phone #: 575-703-6537 **Unique Project ID** Project Owner: Project Reference # Project Manager: **Summary of Times** Arrived at Site 11/19/2021 8:50 AM

#### **Field Notes**

11:47 Arrived on site to continue confirmation sampling

11:47 Collected WES21-12-WES21-26 around the south excavation

11/19/2021 3:00 PM

13:50 WES21-12-WES21-26 are all clean on EC, PID, and PetroFlag

## **Next Steps & Recommendations**

1 Complete confirmation sampling on Monday



## **Site Photos**

Viewing Direction: South



Sample area for WES21-12-WES21-13

Viewing Direction: Southeast



Sample area for WES21-16-WES21-18

Viewing Direction: Northeast



Sample area for WES21-15

Viewing Direction: Southeast



Sample area for WES21-19





Sample area for WES21-20-WES21-23



Sample area for WES21-24



Sample area for WES21-25-WES21-26



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



Client:	EOG Resources Inc.	Inspection Date:	11/22/2021	
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/22/2021 10:13 PM	
Client Contact Name:	Chase Settle	API#:		
Client Contact Phone #:	575-703-6537			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/22/2021 10:05 AM			
Departed Site	11/22/2021 2:00 PM			
		Field Not	es	

10:33 Arrived on site to continue confirmation sampling

13:07 Collected WES21-27-WES21-34 and BES21-30-BES21-32. All clean on EC,PID, and PetroFlag

## **Next Steps & Recommendations**

**1** Analytical results are showing four dirty base samples (BES21-08-BES21-09 and BES21-16-BES21-17. Will dig down to 6ft to recollect and complete confirmation tomorrow



#### **Site Photos**

Viewing Direction: North



Sample area for WES21-27-WES21-28

Viewing Direction: Southeast



Sample area for WES21-32-WES21-34

**Viewing Direction**: Southeast



Sample area for WES21-29-WES21-31

Viewing Direction: East



Sample area for BES21-30-BES21-32



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature: Signature



Client:	EOG Resources Inc.	Inspection Date:	11/23/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/23/2021 11:54 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of <sup>-</sup>	Times
Arrived at Site	11/23/2021 7:50 AM		
Departed Site	11/23/2021 3:30 PM		
		Field Note	es

- 7:52 Arrived on site to excavate affected areas from analytical results and continue confirmation sampling
- 9:37 Collected BES21-33-BES21-40. All clean on EC and PID
- 10:07 Collected BES21-08-BES21-09 and BES21-16-BES21-17 at 6ft. All clean on EC and PID. Sending back to lab for analytical.
- **11:58** All sample points that were needed for confirmation have been established. We will assess any failed samples that come back from lab.

## **Next Steps & Recommendations**

1 Expose pipeline tomorrow



#### **Site Photos**



Sample area for BES21-33-BES21-35



Sample area for BES21-08-BES21-09 and BES21-16-BES21-17 being taken down to 6ft



Sample area for BES21-36-BES21-40



**Viewing Direction**: Northeast

Sample areas taken down to 6ft





Liner from the mud pit is exposed at the wall



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



Client:	EOG Resources Inc.	Inspection Date:	11/24/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/24/2021 7:24 PM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	11/24/2021 7:05 AM		
Departed Site	11/24/2021 12:00 PM		

## **Field Notes**

8:05 Arrived on site to work on exposing the pipeline running to the well head

10:53 Pipeline is fully exposed in the dirty area

## **Next Steps & Recommendations**

1 Come back next week to assess any failed samples and haul out the stockpile



## **Site Photos**



Pipeline almost fully exposed



Viewing Direction: East

Descriptive Proce
Viewing Dispose
Vie

Pipeline



Pipeline



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



Client:	EOG Resources Inc.	Inspection Date:	11/29/2021
Site Location Name:	Warren ANW Federal #6	Report Run Date:	11/30/2021 4:51 PM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	11/29/2021 8:30 AM		
Departed Site	11/29/2021 11:23 AM		
		Field Not	es

9:21 Arrived on site to load trucks. Eight trucks should be hauling today. Only five have showed up for first load

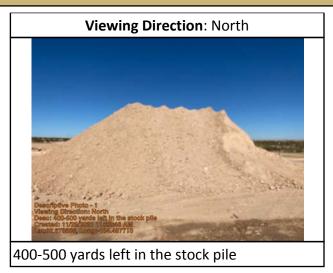
11:22 Five trucks have shown up to haul 100 yards so far. 200 yards estimated for the day

## **Next Steps & Recommendations**

1 Bring more trucks to haul tomorrow.



## **Site Photos**



Run on 11/30/2021 4:51 PM UTC Powered by www.krinkleldar.com Page 2 of 3



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



12/1/2021 Client: EOG Resources Inc. Inspection Date: 12/2/2021 12:08 AM Site Location Name: Warren ANW Federal #6 Report Run Date: Client Contact Name: Chase Settle API#: 575-703-6537 Client Contact Phone #: Unique Project ID Project Owner: Project Reference # Project Manager: **Summary of Times** Arrived at Site 12/1/2021 8:58 AM **Departed Site** 12/1/2021 4:10 PM

#### **Field Notes**

**8:58** Arrived on site to take photos of soil lithology for the excavation.

## **Next Steps & Recommendations**

1



#### **Site Photos**





6in of topsoil down to aggregate. South side of excavation.

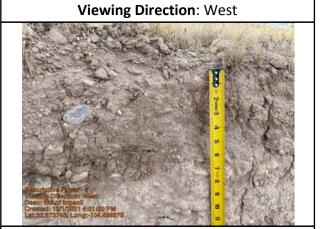
# Viewing Direction: East Document of the Photo English State of the Photo E

6in-42in aggregate. South side of excavation.

## Viewing Direction: East



42-66in clay/caliche. South side of excavation.



6in of topsoil. West side of excavation.





6in down to 4ft aggregate. West side of excavation



5in of topsoil. East side of excavation.



5in-42in is aggregate. East side of excavation.



42in-6ft is caliche/clay. East side of excavation.



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature: Signature



Client:	EOG Resources Inc.	Inspection Date:	1/13/2022
Site Location Name:	Warren ANW Federal #6	Report Run Date:	1/14/2022 2:07 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	1/13/2022 7:45 AM		
Departed Site	1/13/2022 4:15 PM		

#### **Field Notes**

- **8:23** Arrived on site to expose pipeline on the west side in order to complete confirmation
- 8:26 Exposing the pipeline at the wall and a bucket length on the other side by the end of the day
- 11:57 Joel with EOG came to do one call for the site.
- **8:49** Pipeline has been spotted at the corner. Working it back toward the south.
- 9:56 Pipe is now exposed all the way down the wall. Now going to dig underneath it to put sand bags underneath.
- **16:06** Still working to put the rest of the exposed line on sand bags

#### **Next Steps & Recommendations**

1 Continue digging underneath the line tomorrow and complete confirmation sampling



## **Site Photos**

Viewing Direction: Northwest



Spotting the line by hand

Viewing Direction: Northwest



Gently pulling the dirt from north to south on west side of pipe.

Viewing Direction: West



Excavating down about 1' on top and then hand digging the rest to expose it

Viewing Direction: Southeast



Pipeline spotted at the corner





Pipeline exposed all the way across the wall.



Pipeline on sandbags



Pipeline exposed and sitting on sandbags all the way across the wall



Putting the rest of the exposed line on sand bags



## **Daily Site Visit Signature**

**Inspector:** Chance Dixon



EOG Resources Inc. 1/14/2022 Client: Inspection Date: Warren ANW Federal #6 Report Run Date: 1/14/2022 8:26 PM Site Location Name: Chase Settle API#: Client Contact Name: Client Contact Phone #: 575-703-6537 Unique Project ID Project Owner: Project Reference # Project Manager:

	Summary of Times											
Arrived at Site	1/14/2022 8:35 AM											
Departed Site	1/14/2022 12:30 PM											

#### **Field Notes**

- **8:39** Arrived on site to complete confirmation.
- **9:48** All of where the pipeline is exposed is up on sand bags.
- 9:48 Sloping the south edge of the mud pit to get it ready for a liner
- 10:21 Collected WES22-35-WES22-36. All clean on EC, PID, and PetroFlag.

#### **Next Steps & Recommendations**

1



#### **Site Photos**

Viewing Direction: Northwest



Exposed pipelines up on sand bags

Viewing Direction: Southwest



Sample area for WES22-36

Viewing Direction: Northeast

Sample area for WES22-35

Viewing Direction: Northwest



Mud pit sloped



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature: \_



Client:	EOG Resources Inc.	Inspection Date:	2/11/2022
Site Location Name:	Warren ANW Federal #6	Report Run Date:	2/11/2022 8:52 PM
Client Contact Name:	Chase Settle	API#:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	2/11/2022 7:10 AM		
Departed Site	2/11/2022 8:15 AM		
		Field Not	es

- 7:32 Arrived on site to complete confirmation sampling
- **7:33** Collecting WES22-37 through WES22-40 along the south mud pit wall. Collecting BES22-41 through BES22-44 at 4' in the middle of the excavation.
- 7:49 BES22-37 through BES22-40 are clean on all field screening.

#### **Next Steps & Recommendations**

1 No recommendations at this time.



#### **Site Photos**



Sample area for WES22-37 through WES22-40



Sample area for BES22-41 through BES22-44



#### **Daily Site Visit Signature**

**Inspector:** Chance Dixon

Signature:

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/3/21)

					:	Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	4.0	0		0.87	17.9	1291		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-01	6.0	0	15	0.24	17.5	399		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-02	2.0	0		0.70	20.9	916		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-02	4.0	0		0.76	22.3	942		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-02	6.0	0	20	0.17	20.4	173		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-03	2.0	0		0.91	21.2	1206		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-03	4.0	0		0.90	22	1157		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-03	6.0	0	28	0.16	20.4	158		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-04	2.0	0		1.07	21.29	1433		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



						VEHIEN
BES21-04	4.0	0	1.50	20.5	2088	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-01	2.0	0	0.16	17.7	275	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-02	2.0	0	0.24	17.1	417	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-03	2.0	0	0.25	17.1	431	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-04	1.0	0	0.20	20.1	229	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-05	1.0	0	0.40	20.9	483	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-06	1.0	0	0.73	22.2	903	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-07	1.0	0	1.31	21.5	1770	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-08	2.0	0	0.39	22	421	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-09	2.0	0	1.50	21.5	2045	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/4/21)

						Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-04	6.0	0	20	0.35	18.4	519		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-05	4.0	0		0.62	19.8	848		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-05	6.0	0	5	0.26	21.2	268		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-10	3.0	0		1.49	18	2182		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-11	3.0	0		1.01	19.4	1428		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-12	3.0	0		0.79	18.9	1132		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	
WES21-13	3.0	0		0.65	18.6	943		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-14	3.0	0		0.35	19.5	471		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-15	0.7	0		0.71	20.3	956		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



WES21-16	3.0	0	0.58	20.2	773	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-17	3.0	0	0.80	20.8	1065	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-18	3.0	0	0.31	20.5	370	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-19	3.0	0	0.39	21.2	456	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/5/21)

						Sampling					
				Field	Screeni				Data Co	ollection	
		Hydro	carbon		(	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-06	4.0	0	10	0.39	18	594		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-07	4.0	0	30	0.25	18.3	379		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES21-08	4.0	0	25	0.34	18.2	513		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-20	2.0	0	0	0.29	18.2	441		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-21	2.0	0		0.54	18	811		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-22	2.0	0		0.55	18.7	795		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-23	2.0	0		0.60	18.9	858		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-24	2.0	0		0.27	18.8	386		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-25	2.0	0		0.34	18	522		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	



WES21-26	2.0	0	0.36	19.9	469	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-27	2.0	0	0.26	18.9	368	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-28	2.0	0	0.85	19.8	1180	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-29	3.0	0	0.85	21	1128	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-30	2.0	0	0.81	20.9	1075	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-31	2.0	0	0.80	19.7	1112	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-32	2.0	0	0.78	19.9	1075	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-33	2.0	0	0.87	20.8	1166	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/9/21)

					:	Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-09	4.0	0	20				485	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-10	2.0	0					1257	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-10	4.0	0	17	0.32	23.8	242		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-34	2.0	0					1184	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-35	2.0	0					2025	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-36	1.0	0					1750	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-37	2.0	0					1087	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-38	2.0	0		1.16	22.8	1498		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-39	2.0	0		1.22	24.2	1524		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	

Received by OCD: 2/1	 8/2022 2:38:19	PM				,	(EPA SW-846 Method 8015M)	٧	
	WES21-41	2.0	0	0.93	19.2	1322	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>V</b>	

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/15/21)

	Sampling													
				Field	Screenii	ng			Data Co	ollection				
		Hydro	carbon		C	Chloride								
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)			
BES21-15	4.0	0	55	0.45	19.4	620		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				
BES21-16	4.0	0	23	0.37	19.4	505		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				
WES21-47	2.0	0		0.73	19.3	1029		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				
WES21-48	2.0	0		0.40	19.4	548		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				
WES21-49	2.0	0		0.61	20.3	812		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				
WES21-50	2.0	0		0.34	20.9	396		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>				

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/16/21)

						Sampling					
				Field	Screenii				Data Co	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-17	4.0	0		0.70	21.5	890		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-17	6.0	0	15	0.44	22	493		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES21-18	4.0	0	67	0.39	21.4	447		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES21-19	4.0	0	73	0.35	20.1	445		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-51	2.0	0		0.52	21.2	643		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-52	2.0	0		0.68	23.3	783		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-53	2.0	0		0.64	22.4	764		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-54	3.0	0		0.35	20.1	445		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-55	2.0	0		0.39	20.3	495		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/17/21)

					:	Sampling					
				Field	Screenii	ng			Data Co	ollection	
		Hydro	carbon		C	hloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	6.0	0	38	0.45	20.5	572		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	<b>\</b>	
BES21-02	4.0	0	3	0.39	21	464		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	<b>\</b>	
BES21-03	4.0	0	28	0.38	20.2	484		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	<b>\</b>	
BES21-04	4.0	0	47	0.37	20.9	440		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	<b>\</b>	
BES21-05	4.0	0	54	0.38	20.6	467		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	<b>\</b>	
BES21-06	4.0	0	0	0.33	21.1	373		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>\</b>	<b>\</b>	
BES21-07	4.0	0	33	0.37	21.2	427		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>/</b>	<b>\</b>	
BES21-08	4.0	0	31	0.40	21.4	461		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>V</b>	<b>/</b>	
BES21-09	4.0	0	29	0.39	21.6	438		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>V</b>	<b>V</b>	



							VEHIEN
BES21-10	4.0	0	30	0.37	21.7	405	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-11	4.0	0	9	0.35	21.2	398	BTEX (EPA SW-846     Method 8021B/8260B),     Chloride (EPA 300.0), TPH     (EPA SW-846 Method
BES21-12	6.0	0	0	0.25	21.2	253	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-13	6.0	0	34	0.35	21.6	381	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-14	6.0	0	0	0.40	21.4	461	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-15	6.0	0	21	0.40	21.5	457	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-16	4.0	0	8	0.37	21.5	414	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-17	4.0	0	26	0.38	21.9	411	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-18	4.0	0	31	0.38	21.5	428	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-19	4.0	0	12	0.30	21.6	308	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
BES21-20	4.0	0	5	0.28	21.2	297	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/18/21)

						Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	hloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-21	4.0	0	21	0.35	19	493		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-22	4.0	0	30	0.37	17.4	591		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-23	6.0	0	32	0.31	17.2	513		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES21-24	6.0	0	28	0.31	17.2	513		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-25	4.0	0	40	0.37	17.3	596		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-26	4.0	0	52	0.33	17.2	542		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-27	4.0	0	22	0.35	17.7	549		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-28	6.0	0	18	0.35	17.2	571		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-01	3.0	0	21	0.37	19.1	518		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



							VERIEX
WES21-02	2.0	0	5	0.19	19.5	241	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-03	2.0	0	9	0.32	19.4	432	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-04	2.0	0	10	0.39	19.2	542	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-05	2.0	0	0	0.40	19.7	535	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-06	3.0	0	2	0.10	19.6	106	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-07	3.0	0	0	0.12	19.3	148	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-08	3.0	0	5	0.18	19	248	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-09	3.0	0	9	0.24	19.1	330	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-10	3.0	0	20	0.15	19.6	178	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-11	3.0	0	18	0.11	19.5	125	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/19/21)

						Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	hloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
WES21-12	3.0	0	29	0.16	18	262		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-13	3.0	0	42	0.38	18.1	575		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-14	3.0	0	18	0.19	16.4	375		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-15	3.0	0	5	0.35	16.8	588		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-16	3.0	0	6	0.34	16.7	578		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-17	3.0	0	10	0.32	16.3	567		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	
WES21-18	3.0	0	11	0.34	16.7	578		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-19	3.0	0	22	0.35	17.6	554		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-20	3.0	0	46	0.37	18.4	548		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



WES21-21	3.0	0	19	0.36	18	551	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-22	2.0	0	4	0.37	17.5	587	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-23	2.0	0	25	0.29	16.5	515	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-24	2.0	0	21	0.36	18.2	542	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-25	2.0	0	30	0.38	17.8	588	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)
WES21-26	2.0	0	41	0.30	16.4	533	BTEX (EPA SW-846

VERTEX

Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/22/21)

					:	Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-30	4.0	0	18	0.39	20	508		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-31	4.0	0	34	0.32	20.1	402		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES21-32	6.0	0	39	0.29	19.8	372		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES21-27	2.0	0	54	0.35	19.5	471		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
WES21-28	2.0	0	23	0.28	19.6	366		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-29	2.0	0	41	0.32	19.6	424		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-30	2.0	0	39	0.30	19.7	391		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
WES21-31	2.0	0	13	0.31	19.7	405		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	
WES21-32	2.0	0	6	0.34	19.7	448		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



WES21-33	2.0	0	12	0.29	19.9	368	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	
WES21-34	2.0	0	23	0.37	20	479	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>\</b>	



Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 11/23/21)

						Sampling					
				Field	Screeni	ng			Data C	ollection	
		Hydro	carbon		C	Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-08	6.0	0		0.30	19	421		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-09	6.0	0		0.29	18.8	415		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-16	6.0	0		0.31	18	479		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-17	6.0	0		0.30	18.1	460		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-33	4.0	0		0.19	18.2	297		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-34	4.0	0		0.25	18.2	383		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>\</b>	
BES21-35	4.0	0		0.26	18.4	389		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-36	4.0	0		0.35	18.5	515		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>/</b>	
BES21-37	6.0	0		0.14	18.5	212		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		/	



BES21-38	6.0	0	0.21	18.7	304	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	>	
BES21-39	6.0	0	0.31	18.9	440	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>&gt;</b>	
BES21-40	6.0	0	0.36	19	508	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	<b>\</b>	



Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 1/14/22)

						Sampling					
				Field	Screenir	ng			Data Co	ollection	
		Hydro	carbon	Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
WES22-35	3.0	0	20	0.18	19.4	230		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
WES22-36	3.0	0	14	0.19	19.2	253		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	



Client: Client: EOG Resources Inc.

Location: Site: Warren ANW Federal #6

**Date:** (SD: 2/11/22)

						Sampling					
				Field	Screenii	ng			Data Co	llection	
		Hydro	carbon			Chloride					
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-41	4.0	0	61	0.30	17	508		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES22-42	4.0	0	29	0.28	17.3	466		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES22-43	4.0	0	74	0.34	17.2	557		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	
BES22-44	4.0	0	45	0.35	17.4	562		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)		<b>V</b>	

#### **ATTACHMENT 7**



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

November 29, 2021

Mike Moffitt
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX

RE: Warron ANW Federal 6 OrderNo.: 2111A01

#### Dear Mike Moffitt:

Hall Environmental Analysis Laboratory received 20 sample(s) on 11/19/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 11/29/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-01 6'

**Project:** Warron ANW Federal 6 **Collection Date:** 11/17/2021 9:00:00 AM

**Lab ID:** 2111A01-001 **Matrix:** MEOH (SOIL) **Received Date:** 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	350	60	mg/Kg	20	11/19/2021 5:49:09 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/19/2021 5:23:42 PM	64052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/19/2021 5:23:42 PM	64052
Surr: DNOP	91.3	70-130	%Rec	1	11/19/2021 5:23:42 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	11/19/2021 2:16:55 PM	B82982
Surr: BFB	103	70-130	%Rec	1	11/19/2021 2:16:55 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.021	mg/Kg	1	11/19/2021 2:16:55 PM	E82982
Toluene	ND	0.042	mg/Kg	1	11/19/2021 2:16:55 PM	E82982
Ethylbenzene	ND	0.042	mg/Kg	1	11/19/2021 2:16:55 PM	E82982
Xylenes, Total	ND	0.084	mg/Kg	1	11/19/2021 2:16:55 PM	E82982
Surr: 4-Bromofluorobenzene	99.9	70-130	%Rec	1	11/19/2021 2:16:55 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 24

Date Reported: 11/29/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-02 4'

Project: Warron ANW Federal 6 Collection Date: 11/17/2021 9:10:00 AM

**Lab ID:** 2111A01-002 **Matrix:** MEOH (SOIL) **Received Date:** 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	480	60	mg/Kg	20	11/19/2021 6:51:12 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/19/2021 5:48:06 PM	64052
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/19/2021 5:48:06 PM	64052
Surr: DNOP	93.1	70-130	%Rec	1	11/19/2021 5:48:06 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/19/2021 2:40:25 PM	B82982
Surr: BFB	100	70-130	%Rec	1	11/19/2021 2:40:25 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.020	mg/Kg	1	11/19/2021 2:40:25 PM	E82982
Toluene	ND	0.040	mg/Kg	1	11/19/2021 2:40:25 PM	E82982
Ethylbenzene	ND	0.040	mg/Kg	1	11/19/2021 2:40:25 PM	E82982
Xylenes, Total	ND	0.079	mg/Kg	1	11/19/2021 2:40:25 PM	E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 2:40:25 PM	E82982

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 24

Date Reported: 11/29/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-03 4'

**Project:** Warron ANW Federal 6 **Collection Date:** 11/17/2021 9:20:00 AM

**Lab ID:** 2111A01-003 **Matrix:** MEOH (SOIL) **Received Date:** 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	480	59	mg/Kg	20	11/19/2021 7:28:27 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/19/2021 6:12:28 PM	64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/19/2021 6:12:28 PM	64052
Surr: DNOP	91.1	70-130	%Rec	1	11/19/2021 6:12:28 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	11/19/2021 3:03:55 PM	B82982
Surr: BFB	103	70-130	%Rec	1	11/19/2021 3:03:55 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.018	mg/Kg	1	11/19/2021 3:03:55 PM	E82982
Toluene	ND	0.036	mg/Kg	1	11/19/2021 3:03:55 PM	E82982
Ethylbenzene	ND	0.036	mg/Kg	1	11/19/2021 3:03:55 PM	E82982
Xylenes, Total	ND	0.072	mg/Kg	1	11/19/2021 3:03:55 PM	E82982
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	11/19/2021 3:03:55 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-04 4'

**Project:** Warron ANW Federal 6 **Collection Date:** 11/17/2021 9:30:00 AM

**Lab ID:** 2111A01-004 **Matrix:** MEOH (SOIL) **Received Date:** 11/19/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	110	60	mg/Kg	20	11/19/2021 7:40:52 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/19/2021 6:36:48 PM	64052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/19/2021 6:36:48 PM	64052
Surr: DNOP	97.5	70-130	%Rec	1	11/19/2021 6:36:48 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	11/19/2021 3:27:39 PM	B82982
Surr: BFB	99.5	70-130	%Rec	1	11/19/2021 3:27:39 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	11/19/2021 3:27:39 PM	E82982
Toluene	ND	0.038	mg/Kg	1	11/19/2021 3:27:39 PM	E82982
Ethylbenzene	ND	0.038	mg/Kg	1	11/19/2021 3:27:39 PM	E82982
Xylenes, Total	ND	0.075	mg/Kg	1	11/19/2021 3:27:39 PM	E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 3:27:39 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-05 4'

**Project:** Warron ANW Federal 6 **Collection Date:** 11/17/2021 9:40:00 AM

**Lab ID:** 2111A01-005 **Matrix:** MEOH (SOIL) **Received Date:** 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	87	60	mg/Kg	20	11/19/2021 7:53:17 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/19/2021 7:01:01 PM	64052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/19/2021 7:01:01 PM	64052
Surr: DNOP	86.9	70-130	%Rec	1	11/19/2021 7:01:01 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	11/19/2021 3:51:10 PM	B82982
Surr: BFB	97.5	70-130	%Rec	1	11/19/2021 3:51:10 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.017	mg/Kg	1	11/19/2021 3:51:10 PM	E82982
Toluene	ND	0.034	mg/Kg	1	11/19/2021 3:51:10 PM	E82982
Ethylbenzene	ND	0.034	mg/Kg	1	11/19/2021 3:51:10 PM	E82982
Xylenes, Total	ND	0.067	mg/Kg	1	11/19/2021 3:51:10 PM	E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 3:51:10 PM	E82982

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Surr: 4-Bromofluorobenzene

### Analytical Report Lab Order 2111A01

Date Reported: 11/29/2021

11/19/2021 5:24:28 PM E82982

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-06 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 9:50:00 AM

 Lab ID:
 2111A01-006
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Result **RL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 230 60 mg/Kg 11/19/2021 8:05:42 PM 64060 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.5 mg/Kg 11/19/2021 7:25:11 PM 64052 Motor Oil Range Organics (MRO) ND 11/19/2021 7:25:11 PM 64052 47 mg/Kg 1 Surr: DNOP 85.5 %Rec 11/19/2021 7:25:11 PM 64052 70-130 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 11/19/2021 5:24:28 PM B82982 Gasoline Range Organics (GRO) ND 3.5 mg/Kg Surr: BFB 100 %Rec 11/19/2021 5:24:28 PM B82982 70-130 **EPA METHOD 8021B: VOLATILES** Analyst: NSB ND 0.018 11/19/2021 5:24:28 PM E82982 Benzene mg/Kg Toluene ND 0.035 mg/Kg 11/19/2021 5:24:28 PM E82982 Ethylbenzene ND 0.035 mg/Kg 11/19/2021 5:24:28 PM E82982 1 Xylenes, Total ND 0.070 mg/Kg 11/19/2021 5:24:28 PM E82982

101

70-130

%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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-07 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:00:00 AM

 Lab ID:
 2111A01-007
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	150	60	mg/Kg	20	11/19/2021 8:18:07 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/19/2021 7:49:35 PM	64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/19/2021 7:49:35 PM	64052
Surr: DNOP	89.3	70-130	%Rec	1	11/19/2021 7:49:35 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	11/19/2021 5:47:58 PM	B82982
Surr: BFB	97.9	70-130	%Rec	1	11/19/2021 5:47:58 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.018	mg/Kg	1	11/19/2021 5:47:58 PM	E82982
Toluene	ND	0.035	mg/Kg	1	11/19/2021 5:47:58 PM	E82982
Ethylbenzene	ND	0.035	mg/Kg	1	11/19/2021 5:47:58 PM	E82982
Xylenes, Total	ND	0.070	mg/Kg	1	11/19/2021 5:47:58 PM	E82982
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	11/19/2021 5:47:58 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-08 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:10:00 AM

 Lab ID:
 2111A01-008
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	980	60	mg/Kg	20	11/19/2021 8:55:20 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/19/2021 8:13:47 PM	64052
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/19/2021 8:13:47 PM	64052
Surr: DNOP	93.3	70-130	%Rec	1	11/19/2021 8:13:47 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/19/2021 6:11:28 PM	B82982
Surr: BFB	99.7	70-130	%Rec	1	11/19/2021 6:11:28 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.020	mg/Kg	1	11/19/2021 6:11:28 PM	E82982
Toluene	ND	0.040	mg/Kg	1	11/19/2021 6:11:28 PM	E82982
Ethylbenzene	ND	0.040	mg/Kg	1	11/19/2021 6:11:28 PM	E82982
Xylenes, Total	ND	0.080	mg/Kg	1	11/19/2021 6:11:28 PM	E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 6:11:28 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-09 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:20:00 AM

 Lab ID:
 2111A01-009
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	1300	60	mg/Kg	20	11/19/2021 9:07:45 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/19/2021 8:38:05 PM	64052
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/19/2021 8:38:05 PM	64052
Surr: DNOP	83.8	70-130	%Rec	1	11/19/2021 8:38:05 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	11/19/2021 6:34:55 PM	B82982
Surr: BFB	99.8	70-130	%Rec	1	11/19/2021 6:34:55 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.017	mg/Kg	1	11/19/2021 6:34:55 PM	E82982
Toluene	ND	0.034	mg/Kg	1	11/19/2021 6:34:55 PM	E82982
Ethylbenzene	ND	0.034	mg/Kg	1	11/19/2021 6:34:55 PM	E82982
Xylenes, Total	ND	0.069	mg/Kg	1	11/19/2021 6:34:55 PM	E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 6:34:55 PM	E82982

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-10 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:30:00 AM

 Lab ID:
 2111A01-010
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	210	60	mg/Kg	20	11/19/2021 9:20:10 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/19/2021 9:02:24 PM	64052
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/19/2021 9:02:24 PM	64052
Surr: DNOP	72.7	70-130	%Rec	1	11/19/2021 9:02:24 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	11/19/2021 6:58:13 PM	B82982
Surr: BFB	101	70-130	%Rec	1	11/19/2021 6:58:13 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.021	mg/Kg	1	11/19/2021 6:58:13 PM	E82982
Toluene	ND	0.041	mg/Kg	1	11/19/2021 6:58:13 PM	E82982
Ethylbenzene	ND	0.041	mg/Kg	1	11/19/2021 6:58:13 PM	E82982
Xylenes, Total	ND	0.082	mg/Kg	1	11/19/2021 6:58:13 PM	E82982
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	11/19/2021 6:58:13 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-11 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:40:00 AM

 Lab ID:
 2111A01-011
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	67	61	mg/Kg	20	11/19/2021 9:32:34 PM	64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/19/2021 9:26:47 PM	64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/19/2021 9:26:47 PM	64052
Surr: DNOP	75.5	70-130	%Rec	1	11/19/2021 9:26:47 PM	64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	11/19/2021 7:21:26 PM	B82982
Surr: BFB	101	70-130	%Rec	1	11/19/2021 7:21:26 PM	B82982
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.018	mg/Kg	1	11/19/2021 7:21:26 PM	E82982
Toluene	ND	0.036	mg/Kg	1	11/19/2021 7:21:26 PM	E82982
Ethylbenzene	ND	0.036	mg/Kg	1	11/19/2021 7:21:26 PM	E82982
Xylenes, Total	ND	0.071	mg/Kg	1	11/19/2021 7:21:26 PM	E82982
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/19/2021 7:21:26 PM	E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-12 6'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 10:50:00 AM

 Lab ID:
 2111A01-012
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	240	60	mg/Kg	20	11/19/2021 9:44:59 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/22/2021 11:47:09 AM 64052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/22/2021 11:47:09 AM 64052
Surr: DNOP	99.8	70-130	%Rec	1	11/22/2021 11:47:09 AM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.1	mg/Kg	1	11/19/2021 7:45:00 PM B82982
Surr: BFB	99.4	70-130	%Rec	1	11/19/2021 7:45:00 PM B82982
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.026	mg/Kg	1	11/19/2021 7:45:00 PM E82982
Toluene	ND	0.051	mg/Kg	1	11/19/2021 7:45:00 PM E82982
Ethylbenzene	ND	0.051	mg/Kg	1	11/19/2021 7:45:00 PM E82982
Xylenes, Total	ND	0.10	mg/Kg	1	11/19/2021 7:45:00 PM E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 7:45:00 PM E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-13 6'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:00:00 AM

 Lab ID:
 2111A01-013
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	140	60	mg/Kg	20	11/19/2021 9:57:23 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/19/2021 10:15:16 PM 64052
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/19/2021 10:15:16 PM 64052
Surr: DNOP	73.6	70-130	%Rec	1	11/19/2021 10:15:16 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	11/19/2021 8:08:27 PM B82982
Surr: BFB	99.4	70-130	%Rec	1	11/19/2021 8:08:27 PM B82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.017	mg/Kg	1	11/19/2021 8:08:27 PM E82982
Toluene	ND	0.034	mg/Kg	1	11/19/2021 8:08:27 PM E82982
Ethylbenzene	ND	0.034	mg/Kg	1	11/19/2021 8:08:27 PM E82982
Xylenes, Total	ND	0.068	mg/Kg	1	11/19/2021 8:08:27 PM E82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 8:08:27 PM E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-14 6'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:10:00 AM

 Lab ID:
 2111A01-014
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	260	60	mg/Kg	20	11/19/2021 10:09:48 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/19/2021 10:39:22 PM 64052
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/19/2021 10:39:22 PM 64052
Surr: DNOP	73.6	70-130	%Rec	1	11/19/2021 10:39:22 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	11/19/2021 8:31:44 PM B82982
Surr: BFB	102	70-130	%Rec	1	11/19/2021 8:31:44 PM B82982
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.019	mg/Kg	1	11/19/2021 8:31:44 PM E82982
Toluene	ND	0.039	mg/Kg	1	11/19/2021 8:31:44 PM E82982
Ethylbenzene	ND	0.039	mg/Kg	1	11/19/2021 8:31:44 PM E82982
Xylenes, Total	ND	0.077	mg/Kg	1	11/19/2021 8:31:44 PM E82982
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	11/19/2021 8:31:44 PM E82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-15 6'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:20:00 AM

 Lab ID:
 2111A01-015
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	510	60	mg/Kg	20	11/19/2021 10:22:12 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/19/2021 11:03:32 PM 64052
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/19/2021 11:03:32 PM 64052
Surr: DNOP	72.7	70-130	%Rec	1	11/19/2021 11:03:32 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	11/19/2021 8:55:13 PM B82982
Surr: BFB	102	70-130	%Rec	1	11/19/2021 8:55:13 PM B82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.017	mg/Kg	1	11/19/2021 8:55:13 PM E82982
Toluene	ND	0.034	mg/Kg	1	11/19/2021 8:55:13 PM E82982
Ethylbenzene	ND	0.034	mg/Kg	1	11/19/2021 8:55:13 PM E82982
Xylenes, Total	ND	0.068	mg/Kg	1	11/19/2021 8:55:13 PM E82982
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/19/2021 8:55:13 PM E82982

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-16 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:30:00 AM

 Lab ID:
 2111A01-016
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	600	60	mg/Kg	20	11/19/2021 10:34:37 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/19/2021 11:27:37 PM 64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/19/2021 11:27:37 PM 64052
Surr: DNOP	82.9	70-130	%Rec	1	11/19/2021 11:27:37 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/19/2021 10:05:37 PM C82982
Surr: BFB	99.7	70-130	%Rec	1	11/19/2021 10:05:37 PM C82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.020	mg/Kg	1	11/19/2021 10:05:37 PM F82982
Toluene	ND	0.040	mg/Kg	1	11/19/2021 10:05:37 PM F82982
Ethylbenzene	ND	0.040	mg/Kg	1	11/19/2021 10:05:37 PM F82982
Xylenes, Total	ND	0.080	mg/Kg	1	11/19/2021 10:05:37 PM F82982
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/19/2021 10:05:37 PM F82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-17 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:40:00 AM

 Lab ID:
 2111A01-017
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	690	59	mg/Kg	20	11/19/2021 10:47:02 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/19/2021 11:51:47 PM 64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/19/2021 11:51:47 PM 64052
Surr: DNOP	74.5	70-130	%Rec	1	11/19/2021 11:51:47 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/19/2021 11:15:47 PM C82982
Surr: BFB	102	70-130	%Rec	1	11/19/2021 11:15:47 PM C82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.020	mg/Kg	1	11/19/2021 11:15:47 PM F82982
Toluene	ND	0.040	mg/Kg	1	11/19/2021 11:15:47 PM F82982
Ethylbenzene	ND	0.040	mg/Kg	1	11/19/2021 11:15:47 PM F82982
Xylenes, Total	ND	0.079	mg/Kg	1	11/19/2021 11:15:47 PM F82982
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/19/2021 11:15:47 PM F82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-18 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 11:50:00 AM

 Lab ID:
 2111A01-018
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	580	60	mg/Kg	20	11/19/2021 11:24:16 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/22/2021 12:10:58 PM 64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/22/2021 12:10:58 PM 64052
Surr: DNOP	89.8	70-130	%Rec	1	11/22/2021 12:10:58 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/20/2021 12:26:10 AM C82982
Surr: BFB	102	70-130	%Rec	1	11/20/2021 12:26:10 AM C82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	11/20/2021 12:26:10 AM F82982
Toluene	ND	0.046	mg/Kg	1	11/20/2021 12:26:10 AM F82982
Ethylbenzene	ND	0.046	mg/Kg	1	11/20/2021 12:26:10 AM F82982
Xylenes, Total	ND	0.092	mg/Kg	1	11/20/2021 12:26:10 AM F82982
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	11/20/2021 12:26:10 AM F82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-19 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 12:00:00 PM

 Lab ID:
 2111A01-019
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Result **RL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 230 60 mg/Kg 20 11/19/2021 11:36:41 PM 64060 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.6 mg/Kg 11/22/2021 12:34:48 PM 64052 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/22/2021 12:34:48 PM 64052 Surr: DNOP 108 %Rec 70-130 11/22/2021 12:34:48 PM 64052 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB ND Gasoline Range Organics (GRO) 11/20/2021 12:49:33 AM C82982 43 mg/Kg Surr: BFB 102 %Rec 11/20/2021 12:49:33 AM C82982 70-130 **EPA METHOD 8021B: VOLATILES** Analyst: NSB 11/20/2021 12:49:33 AM F82982 ND Benzene 0.021 mg/Kg 1 Toluene ND 0.043 mg/Kg 11/20/2021 12:49:33 AM F82982 Ethylbenzene ND 0.043 mg/Kg 1 11/20/2021 12:49:33 AM F82982 Xylenes, Total ND 0.085 mg/Kg 11/20/2021 12:49:33 AM F82982 Surr: 4-Bromofluorobenzene 70-130 103 %Rec 11/20/2021 12:49:33 AM F82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/29/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-20 4'

 Project:
 Warron ANW Federal 6
 Collection Date: 11/17/2021 12:10:00 PM

 Lab ID:
 2111A01-020
 Matrix: MEOH (SOIL)
 Received Date: 11/19/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	270	61	mg/Kg	20	11/19/2021 11:49:05 PM 64060
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/22/2021 12:58:41 PM 64052
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/22/2021 12:58:41 PM 64052
Surr: DNOP	102	70-130	%Rec	1	11/22/2021 12:58:41 PM 64052
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	11/20/2021 1:12:56 AM C82982
Surr: BFB	102	70-130	%Rec	1	11/20/2021 1:12:56 AM C82982
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.017	mg/Kg	1	11/20/2021 1:12:56 AM F82982
Toluene	ND	0.033	mg/Kg	1	11/20/2021 1:12:56 AM F82982
Ethylbenzene	ND	0.033	mg/Kg	1	11/20/2021 1:12:56 AM F82982
Xylenes, Total	ND	0.066	mg/Kg	1	11/20/2021 1:12:56 AM F82982
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/20/2021 1:12:56 AM F82982

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A01 29-Nov-21** 

Client: EOG

**Project:** Warron ANW Federal 6

Sample ID: MB-64060 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 64060 RunNo: 82983

Prep Date: 11/19/2021 Analysis Date: 11/19/2021 SeqNo: 2948476 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-64060 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64060 RunNo: 82983

Prep Date: 11/19/2021 Analysis Date: 11/19/2021 SeqNo: 2948477 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 91.6 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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### **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

4.2

2111A01 29-Nov-21

WO#:

**Client: EOG** 

Surr: DNOP

**Project:** Warron ANW Federal 6

Sample ID: LCS-64052 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 64052 RunNo: 82977

Prep Date: 11/19/2021 Analysis Date: 11/19/2021 SeqNo: 2948127 Units: mg/Kg

5.000

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Diesel Range Organics (DRO) 10 0 44 50.00 87.7 68.9 135

84.0

130

Sample ID: MB-64052 TestCode: EPA Method 8015M/D: Diesel Range Organics SampType: MBLK

Client ID: PBS Batch ID: 64052 RunNo: 82977

Prep Date: 11/19/2021 Analysis Date: 11/19/2021 SeqNo: 2948129 Units: mg/Kg

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

Surr: DNOP 9.5 10.00 94.7 70 130

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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### **OC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A01** 

29-Nov-21

Client: EOG

**Project:** Warron ANW Federal 6

Sample ID: mb SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: **B82982** RunNo: **82982** 

Prep Date: Analysis Date: 11/19/2021 SeqNo: 2947648 Units: mq/Kq

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1000 1000 99.6 70 130

Sample ID: 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: B82982 RunNo: 82982

Prep Date: Analysis Date: 11/19/2021 SeqNo: 2947649 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 24 5.0 25.00 O 95.5 78.6 131

Surr: BFB 1200 1000 115 70 130

Sample ID: mb-II SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: C82982 RunNo: 82982

Prep Date: Analysis Date: 11/19/2021 SeqNo: 2947670 Units: mg/Kg

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1000 1000 101 70 130

Sample ID: 2.5ug gro Ics-II SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: C82982 RunNo: 82982

1100

Prep Date: Analysis Date: 11/19/2021 SeqNo: 2947671 Units: mq/Kq

1000

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte PQL LowLimit Qual Gasoline Range Organics (GRO) 24 5.0 25.00 95.0 78.6 131

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

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

B Analyte detected in the associated Method Blank

115

70

130

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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## **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2111A01 29-Nov-21

**Client:** EOG

**Project:** Warron ANW Federal 6

Sample ID: mb SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: **E82982** RunNo: 82982

Prep Date: Analysis Date: 11/19/2021 SeqNo: 2947691 Units: mg/Kg

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Benzene ND 0.025

Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 1.0 1.000 101 70 130

Sample ID: 100NG BTEX LCS SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: **E82982** RunNo: 82982

ND

1.0

1.0

0.10

1.000

1.000

Prep Date:	Analysis [	Date: <b>1</b> 1	1/19/2021	S	SeqNo: 2	947692	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.5	80	120			
Toluene	0.96	0.050	1.000	0	95.7	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.2	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Sample ID: mb-II	SampT	уре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles	•	
Client ID: PBS	Batch	ID: <b>F8</b>	2982	F	RunNo: 8	2982				
Prep Date:	Analysis D	ate: 11	/19/2021	8	SeqNo: 2	947713	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								

Sample ID: 100ng btex Ics-II	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batcl	n ID: <b>F8</b>	2982	F	RunNo: 8	2982				
Prep Date:	Analysis D	)ate: <b>11</b>	/19/2021	8	SeqNo: 2	947714	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.7	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			

#### Qualifiers:

Xylenes, Total

Surr: 4-Bromofluorobenzene

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix interference

Analyte detected in the associated Method Blank

101

102

70

70

130

130

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 24 of 24

Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

ABORATORY

				Website: clie	ents.hallen	vironm	ental.com			
Client Name:	EOG		Woi	k Order Nu	mber: 21	11A01	1		RcptNo: 1	
Received By:	Cheyenr	e Cason	11/19/	2021 8:00:	00 AM		Chal	-		
Completed By	: Sean Liv	ingston	11/19/	2021 8:25:	55 AM		<	/	nat	
Reviewed By:		0	11/1	9/21			ے ر	- <i>C</i> ,	738-	
Chain of Cu	<u>ıstody</u>									
1. Is Chain of	Custody com	plete?			Ye	s 🗸	No		Not Present	
2. How was th	ne sample deli	vered?			Co	<u>urier</u>				
Log In										
3. Was an atte	empt made to	cool the sam	ples?		Yes	· 🗸	No l		NA 🗌	
4. Were all sar	mples received	d at a tempera	ature of >0° C	to 6.0°C	Yes	· 🗸	No [		NA 🗆	
5. Sample(s) in	n proper conta	iner(s)?			Yes	· •	No [			
6. Sufficient sa	mple volume	for indicated t	est(s)?		Yes	<b>V</b>	No [			
7. Are samples	(except VOA	and ONG) pr	operly preserv	ed?	Yes	<b>V</b>	No [			
8. Was preserv	ative added to	bottles?			Yes		No 🛭	/	NA 🗆	
9. Received at	least 1 vial wit	h headspace	<1/4" for AQ \	/OA?	Yes		No [		NA 🗹	
10. Were any sa	ample contain	ers received b	oroken?		Yes		No 9			
11 Daga							_		# of preserved bottles checked	
11. Does paperw (Note discrep	ork match bo pancies on ch		4)		Yes	<b>V</b>	No [	]	for pH:	
2. Are matrices					Yes	<b>V</b>	No [	٦	√2 or >12 unless no Adjusted?	ted)
3. Is it clear wha					Yes	<b>V</b>	No [			-0
4. Were all hold (If no, notify o	ling times able	to be met?			Yes		No [	5	Checked by: CM 11/19/	n
Special Hand								_		
15. Was client n			with this order?	>	Yes		No [	7	NA 🗹	
Person	Notified:			Date	. [	-		Name of the last		
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2	2.4	Good								

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	If necessary,	, samples subi	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	ontracted to other ac	credited laboratorie	s. This serves as notice of this	s possibility. An	/ sub-cont	acted data	will be cle	arly notal	ted on the	analytical	report.		317



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

November 30, 2021

Mike Moffitt
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX

RE: Warren ANW Federal 6 OrderNo.: 2111A66

#### Dear Mike Moffitt:

Hall Environmental Analysis Laboratory received 20 sample(s) on 11/20/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Andel

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-21 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:00:00 AM

 Lab ID:
 2111A66-001
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	110	60	mg/Kg	20	11/22/2021 5:50:49 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/23/2021 2:10:10 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 2:10:10 PM	64099
Surr: DNOP	89.6	70-130	%Rec	1	11/23/2021 2:10:10 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: mb
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 9:32:00 PM	64088
Surr: BFB	93.9	70-130	%Rec	1	11/23/2021 9:32:00 PM	64088
EPA METHOD 8021B: VOLATILES					Analyst	: mb
Benzene	ND	0.024	mg/Kg	1	11/23/2021 9:32:00 PM	64088
Toluene	ND	0.048	mg/Kg	1	11/23/2021 9:32:00 PM	64088
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 9:32:00 PM	64088
Xylenes, Total	ND	0.095	mg/Kg	1	11/23/2021 9:32:00 PM	64088
Surr: 4-Bromofluorobenzene	90.7	70-130	%Rec	1	11/23/2021 9:32:00 PM	64088

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-22 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:10:00 AM

 Lab ID:
 2111A66-002
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 6:27:52 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/23/2021 2:42:13 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 2:42:13 PM	64099
Surr: DNOP	82.8	70-130	%Rec	1	11/23/2021 2:42:13 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/23/2021 9:52:00 PM	64088
Surr: BFB	97.6	70-130	%Rec	1	11/23/2021 9:52:00 PM	64088
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.023	mg/Kg	1	11/23/2021 9:52:00 PM	64088
Toluene	ND	0.046	mg/Kg	1	11/23/2021 9:52:00 PM	64088
Ethylbenzene	ND	0.046	mg/Kg	1	11/23/2021 9:52:00 PM	64088
Xylenes, Total	ND	0.093	mg/Kg	1	11/23/2021 9:52:00 PM	64088
Surr: 4-Bromofluorobenzene	90.4	70-130	%Rec	1	11/23/2021 9:52:00 PM	64088

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-23 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:20:00 AM

 Lab ID:
 2111A66-003
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	350	60	mg/Kg	20	11/22/2021 6:40:13 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/23/2021 2:52:52 PM	64099
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2021 2:52:52 PM	64099
Surr: DNOP	94.7	70-130	%Rec	1	11/23/2021 2:52:52 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2021 10:12:00 PM	Л 64088
Surr: BFB	98.3	70-130	%Rec	1	11/23/2021 10:12:00 PM	Л 64088
EPA METHOD 8021B: VOLATILES					Analyst	: mb
Benzene	ND	0.025	mg/Kg	1	11/23/2021 10:12:00 PM	Л 64088
Toluene	ND	0.049	mg/Kg	1	11/23/2021 10:12:00 PM	л 64088
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2021 10:12:00 PM	Л 64088
Xylenes, Total	ND	0.098	mg/Kg	1	11/23/2021 10:12:00 PM	И 64088
Surr: 4-Bromofluorobenzene	90.2	70-130	%Rec	1	11/23/2021 10:12:00 PM	√ 64088

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-24 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:30:00 AM

 Lab ID:
 2111A66-004
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	250	60	mg/Kg	20	11/22/2021 6:52:34 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/23/2021 3:03:33 PM 64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/23/2021 3:03:33 PM 64099
Surr: DNOP	118	70-130	%Rec	1	11/23/2021 3:03:33 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 10:31:00 PM 64088
Surr: BFB	94.1	70-130	%Rec	1	11/23/2021 10:31:00 PM 64088
EPA METHOD 8021B: VOLATILES					Analyst: <b>mb</b>
Benzene	ND	0.024	mg/Kg	1	11/23/2021 10:31:00 PM 64088
Toluene	ND	0.047	mg/Kg	1	11/23/2021 10:31:00 PM 64088
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 10:31:00 PM 64088
Xylenes, Total	ND	0.095	mg/Kg	1	11/23/2021 10:31:00 PM 64088
Surr: 4-Bromofluorobenzene	87.3	70-130	%Rec	1	11/23/2021 10:31:00 PM 64088

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-25 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:40:00 AM

 Lab ID:
 2111A66-005
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>CAS</b>
Chloride	170	60	mg/Kg	20	11/22/2021 7:04:55 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/24/2021 12:21:34 PM 64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/24/2021 12:21:34 PM 64099
Surr: DNOP	96.3	70-130	%Rec	1	11/24/2021 12:21:34 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/23/2021 11:30:00 PM 64088
Surr: BFB	94.8	70-130	%Rec	1	11/23/2021 11:30:00 PM 64088
EPA METHOD 8021B: VOLATILES					Analyst: <b>mb</b>
Benzene	ND	0.023	mg/Kg	1	11/23/2021 11:30:00 PM 64088
Toluene	ND	0.046	mg/Kg	1	11/23/2021 11:30:00 PM 64088
Ethylbenzene	ND	0.046	mg/Kg	1	11/23/2021 11:30:00 PM 64088
Xylenes, Total	ND	0.093	mg/Kg	1	11/23/2021 11:30:00 PM 64088
Surr: 4-Bromofluorobenzene	90.3	70-130	%Rec	1	11/23/2021 11:30:00 PM 64088

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-26 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 9:50:00 AM

 Lab ID:
 2111A66-006
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	510	60	mg/Kg	20	11/22/2021 7:17:18 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/23/2021 3:24:54 PM	64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/23/2021 3:24:54 PM	64099
Surr: DNOP	128	70-130	%Rec	1	11/23/2021 3:24:54 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: mb
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 11:50:00 PM	M 64088
Surr: BFB	96.7	70-130	%Rec	1	11/23/2021 11:50:00 PM	M 64088
EPA METHOD 8021B: VOLATILES					Analyst	: mb
Benzene	ND	0.024	mg/Kg	1	11/23/2021 11:50:00 PM	M 64088
Toluene	ND	0.048	mg/Kg	1	11/23/2021 11:50:00 PM	M 64088
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 11:50:00 PM	M 64088
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2021 11:50:00 PM	M 64088
Surr: 4-Bromofluorobenzene	89.5	70-130	%Rec	1	11/23/2021 11:50:00 PM	M 64088

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-27 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:00:00 AM

 Lab ID:
 2111A66-007
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	140	60	mg/Kg	20	11/22/2021 7:54:20 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/23/2021 3:35:36 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 3:35:36 PM	64099
Surr: DNOP	92.0	70-130	%Rec	1	11/23/2021 3:35:36 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2021 9:10:57 AM	64092
Surr: BFB	100	70-130	%Rec	1	11/23/2021 9:10:57 AM	64092
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 9:10:57 AM	64092
Toluene	ND	0.049	mg/Kg	1	11/23/2021 9:10:57 AM	64092
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2021 9:10:57 AM	64092
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2021 9:10:57 AM	64092
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	11/23/2021 9:10:57 AM	64092

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-28 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:10:00 AM

 Lab ID:
 2111A66-008
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS					Analyst: C	AS
Chloride	ND	60	mg/Kg	20	11/22/2021 8:06:42 PM 64	4108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: St	В
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/23/2021 3:46:16 PM 64	4099
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/23/2021 3:46:16 PM 64	4099
Surr: DNOP	78.6	70-130	%Rec	1	11/23/2021 3:46:16 PM 64	4099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: N	SB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 10:21:26 AM 64	4092
Surr: BFB	100	70-130	%Rec	1	11/23/2021 10:21:26 AM 64	4092
EPA METHOD 8021B: VOLATILES					Analyst: <b>N</b>	SB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 10:21:26 AM 64	4092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 10:21:26 AM 64	4092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 10:21:26 AM 64	4092
Xylenes, Total	ND	0.095	mg/Kg	1	11/23/2021 10:21:26 AM 64	4092
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	11/23/2021 10:21:26 AM 64	4092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-29 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:20:00 AM

 Lab ID:
 2111A66-009
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 8:19:03 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/23/2021 3:56:55 PM 64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 3:56:55 PM 64099
Surr: DNOP	92.0	70-130	%Rec	1	11/23/2021 3:56:55 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 11:32:11 AM 64092
Surr: BFB	103	70-130	%Rec	1	11/23/2021 11:32:11 AM 64092
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/23/2021 11:32:11 AM 64092
Toluene	ND	0.048	mg/Kg	1	11/23/2021 11:32:11 AM 64092
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 11:32:11 AM 64092
Xylenes, Total	ND	0.096	mg/Kg	1	11/23/2021 11:32:11 AM 64092
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/23/2021 11:32:11 AM 64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-01 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:30:00 AM

 Lab ID:
 2111A66-010
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	210	60	mg/Kg	20	11/22/2021 8:31:24 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/23/2021 4:07:34 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 4:07:34 PM	64099
Surr: DNOP	73.2	70-130	%Rec	1	11/23/2021 4:07:34 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 11:55:47 AM	И 64092
Surr: BFB	102	70-130	%Rec	1	11/23/2021 11:55:47 AM	M 64092
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 11:55:47 AM	M 64092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 11:55:47 AM	M 64092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 11:55:47 AM	M 64092
Xylenes, Total	ND	0.094	mg/Kg	1	11/23/2021 11:55:47 AM	M 64092
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/23/2021 11:55:47 AM	M 64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-02 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:40:00 AM

 Lab ID:
 2111A66-011
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	230	61	mg/Kg	20	11/22/2021 8:43:44 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/23/2021 4:18:11 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 4:18:11 PM	64099
Surr: DNOP	117	70-130	%Rec	1	11/23/2021 4:18:11 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 12:19:26 PM	И 64092
Surr: BFB	103	70-130	%Rec	1	11/23/2021 12:19:26 PM	M 64092
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	11/23/2021 12:19:26 PM	M 64092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 12:19:26 PM	M 64092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 12:19:26 PM	M 64092
Xylenes, Total	ND	0.093	mg/Kg	1	11/23/2021 12:19:26 PM	M 64092
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/23/2021 12:19:26 PM	M 64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-03 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 10:50:00 AM

 Lab ID:
 2111A66-012
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	170	60	mg/Kg	20	11/22/2021 8:56:05 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/23/2021 4:28:49 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 4:28:49 PM	64099
Surr: DNOP	86.6	70-130	%Rec	1	11/23/2021 4:28:49 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2021 12:43:03 PM	Л 64092
Surr: BFB	103	70-130	%Rec	1	11/23/2021 12:43:03 PM	Л 64092
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 12:43:03 PM	Л 64092
Toluene	ND	0.049	mg/Kg	1	11/23/2021 12:43:03 PM	Л 64092
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2021 12:43:03 PM	Л 64092
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2021 12:43:03 PM	И 64092
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/23/2021 12:43:03 PM	Л 64092

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-04 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:00:00 AM

 Lab ID:
 2111A66-013
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 9:08:26 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/23/2021 4:39:26 PM	64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/23/2021 4:39:26 PM	64099
Surr: DNOP	92.2	70-130	%Rec	1	11/23/2021 4:39:26 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 1:06:40 PM	64092
Surr: BFB	104	70-130	%Rec	1	11/23/2021 1:06:40 PM	64092
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 1:06:40 PM	64092
Toluene	ND	0.048	mg/Kg	1	11/23/2021 1:06:40 PM	64092
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 1:06:40 PM	64092
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2021 1:06:40 PM	64092
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/23/2021 1:06:40 PM	64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-05 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:10:00 AM

 Lab ID:
 2111A66-014
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 9:20:47 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/23/2021 4:50:02 PM	64099
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/23/2021 4:50:02 PM	64099
Surr: DNOP	71.5	70-130	%Rec	1	11/23/2021 4:50:02 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 1:30:19 PM	64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 1:30:19 PM	64092
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 1:30:19 PM	64092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 1:30:19 PM	64092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 1:30:19 PM	64092
Xylenes, Total	ND	0.095	mg/Kg	1	11/23/2021 1:30:19 PM	64092
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	11/23/2021 1:30:19 PM	64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-06 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:20:00 AM

 Lab ID:
 2111A66-015
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	490	60	mg/Kg	20	11/22/2021 9:33:07 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/24/2021 12:45:19 PM 64099
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/24/2021 12:45:19 PM 64099
Surr: DNOP	84.0	70-130	%Rec	1	11/24/2021 12:45:19 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 1:53:54 PM 64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 1:53:54 PM 64092
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	11/23/2021 1:53:54 PM 64092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 1:53:54 PM 64092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 1:53:54 PM 64092
Xylenes, Total	ND	0.093	mg/Kg	1	11/23/2021 1:53:54 PM 64092
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/23/2021 1:53:54 PM 64092

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-07 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:30:00 AM

 Lab ID:
 2111A66-016
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	120	60	mg/Kg	20	11/22/2021 9:45:29 PM	64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/23/2021 5:32:14 PM	64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/23/2021 5:32:14 PM	64099
Surr: DNOP	125	70-130	%Rec	1	11/23/2021 5:32:14 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/23/2021 2:17:29 PM	64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 2:17:29 PM	64092
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	11/23/2021 2:17:29 PM	64092
Toluene	ND	0.047	mg/Kg	1	11/23/2021 2:17:29 PM	64092
Ethylbenzene	ND	0.047	mg/Kg	1	11/23/2021 2:17:29 PM	64092
Xylenes, Total	ND	0.093	mg/Kg	1	11/23/2021 2:17:29 PM	64092
Surr: 4-Bromofluorobenzene	99.7	70-130	%Rec	1	11/23/2021 2:17:29 PM	64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-08 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:40:00 AM

 Lab ID:
 2111A66-017
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 10:22:31 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/24/2021 1:09:06 PM 64099
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/24/2021 1:09:06 PM 64099
Surr: DNOP	95.4	70-130	%Rec	1	11/24/2021 1:09:06 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/23/2021 3:28:13 PM 64092
Surr: BFB	99.2	70-130	%Rec	1	11/23/2021 3:28:13 PM 64092
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	11/23/2021 3:28:13 PM 64092
Toluene	ND	0.046	mg/Kg	1	11/23/2021 3:28:13 PM 64092
Ethylbenzene	ND	0.046	mg/Kg	1	11/23/2021 3:28:13 PM 64092
Xylenes, Total	ND	0.091	mg/Kg	1	11/23/2021 3:28:13 PM 64092
Surr: 4-Bromofluorobenzene	98.9	70-130	%Rec	1	11/23/2021 3:28:13 PM 64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-09 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 11:50:00 AM

 Lab ID:
 2111A66-018
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	310	60	mg/Kg	20	11/22/2021 10:34:52 PM 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/23/2021 5:53:22 PM 64099
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2021 5:53:22 PM 64099
Surr: DNOP	72.1	70-130	%Rec	1	11/23/2021 5:53:22 PM 64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 3:51:49 PM 64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 3:51:49 PM 64092
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/23/2021 3:51:49 PM 64092
Toluene	ND	0.048	mg/Kg	1	11/23/2021 3:51:49 PM 64092
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 3:51:49 PM 64092
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2021 3:51:49 PM 64092
Surr: 4-Bromofluorobenzene	99.5	70-130	%Rec	1	11/23/2021 3:51:49 PM 64092

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 18 of 24

Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-10 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 12:00:00 PM

 Lab ID:
 2111A66-019
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 10:47:13 PM	Л 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/23/2021 6:03:55 PM	64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/23/2021 6:03:55 PM	64099
Surr: DNOP	98.4	70-130	%Rec	1	11/23/2021 6:03:55 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 4:15:25 PM	64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 4:15:25 PM	64092
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 4:15:25 PM	64092
Toluene	ND	0.048	mg/Kg	1	11/23/2021 4:15:25 PM	64092
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 4:15:25 PM	64092
Xylenes, Total	ND	0.096	mg/Kg	1	11/23/2021 4:15:25 PM	64092
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	1	11/23/2021 4:15:25 PM	64092

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/30/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-11 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/18/2021 12:10:00 PM

 Lab ID:
 2111A66-020
 Matrix: SOIL
 Received Date: 11/20/2021 10:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/22/2021 10:59:34 PM	И 64108
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/23/2021 6:14:27 PM	64099
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/23/2021 6:14:27 PM	64099
Surr: DNOP	83.2	70-130	%Rec	1	11/23/2021 6:14:27 PM	64099
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/23/2021 4:39:00 PM	64092
Surr: BFB	101	70-130	%Rec	1	11/23/2021 4:39:00 PM	64092
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	11/23/2021 4:39:00 PM	64092
Toluene	ND	0.048	mg/Kg	1	11/23/2021 4:39:00 PM	64092
Ethylbenzene	ND	0.048	mg/Kg	1	11/23/2021 4:39:00 PM	64092
Xylenes, Total	ND	0.096	mg/Kg	1	11/23/2021 4:39:00 PM	64092
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/23/2021 4:39:00 PM	64092

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 20 of 24

## **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A66** *30-Nov-21* 

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: MB-64108 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 64108 RunNo: 83024

Prep Date: 11/22/2021 Analysis Date: 11/22/2021 SeqNo: 2949925 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-64108 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64108 RunNo: 83024

Prep Date: 11/22/2021 Analysis Date: 11/22/2021 SeqNo: 2949926 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 91.7 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 21 of 24

### **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A66 30-Nov-21** 

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: LCS-64099 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 64099 RunNo: 83061

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SegNo: 2951759 Units: mg/Kg

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Diesel Range Organics (DRO) 10 0 60 50.00 119 68.9 135 Surr: DNOP 5.0 5.000 100 130

Sample ID: MB-64099 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 64099 RunNo: 83061

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951764 Units: mg/Kg

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

Surr: DNOP 7.2 10.00 71.6 70 130

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### **OC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A66** 

30-Nov-21

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: mb-64088 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 64088 RunNo: 83079

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951060 Units: mg/Kg

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 970 1000 97.2 70 130

Sample ID: Ics-64088 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 64088 RunNo: 83079

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951062 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 O 100 78.6 131

Surr: BFB 1100 1000 114 70 130

Sample ID: mb-64092 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 64092 RunNo: 83080

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951072 Units: mg/Kg

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1000 1000 101 70 130

Sample ID: Ics-64092 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 64092 RunNo: 83080

Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951073 Units: mq/Kq

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** PQL LowLimit Qual Gasoline Range Organics (GRO) 25 5.0 25.00 98.2 78.6 131 Surr: BFB 1100 1000 114 70 130

### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### **OC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2111A66** 

30-Nov-21

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: mb-64088 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 64088 RunNo: 83079 Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951142 Units: mq/Kq PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual Benzene ND 0.025 ND 0.050

 Toluene
 ND
 0.050

 Ethylbenzene
 ND
 0.050

 Xylenes, Total
 ND
 0.10

 Surr: 4-Bromofluorobenzene
 0.92

 Surr: 4-Bromofluorobenzene
 0.92
 1.000
 92.3
 70
 130

Sample ID: Ics-64088 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 64088 RunNo: 83079 Analysis Date: 11/23/2021 SeqNo: 2951148 Prep Date: 11/22/2021 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1.000 0.90 0.025 U 90.2 80 120 Benzene Toluene 0.91 0.050 1.000 0 91.3 80 120 0 80 120 0.94 0.050 1.000 94 1 Ethylbenzene 0 93.1 Xylenes, Total 2.8 0.10 3.000 80 120 Surr: 4-Bromofluorobenzene 0.96 1.000 96.2 70 130

SampType: MBLK TestCode: EPA Method 8021B: Volatiles Sample ID: mb-64092 Client ID: PBS Batch ID: 64092 RunNo: 83080 Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951181 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

ND 0.025 Benzene Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 1.000 101 70 130 1.0

TestCode: EPA Method 8021B: Volatiles Sample ID: LCS-64092 SampType: LCS Client ID: LCSS Batch ID: 64092 RunNo: 83080 Prep Date: 11/22/2021 Analysis Date: 11/23/2021 SeqNo: 2951182 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual 0.88 0.025 1.000 0 88.2 80 120 Benzene Toluene 0.89 0.050 1.000 0 88.6 80 120 Ethylbenzene 0.89 0.050 1.000 0 88.88 80 120 Xylenes, Total 2.7 0.10 3.000 0 89.4 80 120 Surr: 4-Bromofluorobenzene 1.000 103 70 130 1.0

### 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
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

## Sample Log-In Check List

Client Name: Work Order Number: 2111A66 **EOG** RcptNo: 1 Received By: Juan Rojas 11/20/2021 10:35:00 AM Completed By: Juan Rojas 11/20/2021 10:59:06 AM 11/20/2021 Reviewed By: (A) Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? No 🗌 Yes 🗸 NA 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? No 🗌 Yes 🗸 No 🗌 Yes 🗸 6. Sufficient sample volume for indicated test(s)? 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No No 🗸 8. Was preservative added to bottles? Yes 📙 NA L 9. Received at least 1 vial with headspace <1/4" for AQ VOA? No 🔲 NA 🗸 Yes Yes 🗌 No 🗸 10. Were any sample containers received broken? # of preserved bottles checked Yes 🗸 for pH: 11. Does paperwork match bottle labels? No (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No Yes 🗸 13. Is it clear what analyses were requested? No Checked by:-14. Were all holding times able to be met? Yes 🗸 No 🗔 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes NA V No L Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 1 1.5 Good 2 0.4 Good

Described by: Via:    Standard   DR	in-of-C	Chain-of-Custody Record	Turn-Around Time:	C	400-								Receive
Project Name			- □ Standard	2	)		ПГ	A I			<u>Ľ</u> .	NMENTAL	. >
Container   Project #:   Proj	1		Project Name							7	<b>」</b> :	DOKALOK	<b>—</b>
Project #:   Project Manager:		71,12	1/4/	ren AN	W Federal #6	490	)1 Hav	www.	, <u>a</u>	nviron Abugu	mental.	:om IM 87109	y: 2/1
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Container   Project Manager:	1 1	~	12	N	10-8	¥4			Ang	alysis	Reque	t	
Container   Sample: C.D.   Container   Sample: C.D.   Container   Color Temple Name   Type and # Type   Type   Color Temple Name   Type   Type   Color Temple Name   Type   Type   Color Temple Name   Type			Project Mana	iger:						70	(tr		<del>50.</del>
Sample   Sample   Sample   C.C.   C		☐ Level 4 (Full Validation)	N		27.72		bCB,8	SMIS	5 00	C '7O J			17111
Sample Name	1 8	ompliance	\	<						ري.	uəs		
Sample Name	<u>a</u>			Sa, ∠Er	oN 🗆					NI '			1
Sample Name Container Preservative (19, 19, 19, 19, 19, 19, 19, 19, 19, 19,			olers	2									
Sample Name			Cooler Temp	(including CF):	(00) -87279-E								- 9.5
RESIDENT   POINT   P		Samula Name		Preservative Type	C.C.C.								
E521-22 W'  E521-23 C'  E521-28 C'  E521-28 U'  E521-26 U'  E521-26 U'  E521-26 U'  E521-27 U'  E721-27 U'  E721-2	-	1		7.00	(1)	1			4				+
ES21-28 C'  ES21-24 G'  ES21-25 U'  ES21-25 U'  ES21-25 U'  ES21-27 U'  ES21-2			¥	_	700-	i.							
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E\$21-2\$ 6'  E\$21-29 6'  E\$21-29 6'  E\$21-29 6'  E\$21-02 2'  F\$21-03 2'  Received by: Via: Date Time Remarks: \$C. Chance \$D 1x0n, \$M 1x C}  Received by: Via: Date Time Remarks: \$C. Chance \$D 1x0n, \$M 0pp. 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		ES21-27		••••	F00-								
E521-29 6'  States 2 -010  E521-02 2'  E521-03 2'  Received by: Via: Date Time Remarks: CC: Chance Dixon, Mixe More; the Time Received by: Via: Date Time E04 Resources		. 23			200								
##\$21-02 2  F\$21-02 2  Received by: Via: Date Time Remarks: CC: Chance DIXON, MIXC  Received by: Via: Date Time Remarks: CC: Chance DIXON, MIXC    Popping   Popping		9 62-			600-								
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Second by: Via: Date Time   Remarks: CC: Chance Dixon, Mike   Received by: Via: Date Time   Direct 18:71   Received by: Via: Date Time   EOS RESOUNCES		-02			110-								
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11/20/21 DIST ZOG RESOUNCES	l R	ed by:	Received by:	, Via:	Date	Q	12		8171			11011	
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. I his serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	es su	omitted to Hail Environmental may be subc	ontracted to othera	ccredited laboratorie	ss. This serves as notice of this	possibility. A	ny sub-co	ontracted	data will	be clear	y notated c	n the analytical report.	

Chain-of-Custody Record	Turn-Around Time:	me: 2-154y				I			2	Ž	2	FNYTDONMENTAL	eceived 
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ı	Project #:				Tel. 5	05-34	505-345-3975		Fax	505-34	505-345-4107		0/20
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email or Fax#:	Project Manager	Ľ			(0			<sup>⊅</sup> O		(4-	(1)		30.
QA/QC Package: /   □ Standard   □ Level 4 (Full Validation)		MINE MOSFIEL		1208) s'	PCB's		SMISC	PO4, S			nəsdA\tr		19 PM
Accreditation: Az Compliance	Sampler: C.D.					(1,	327(	10 <sup>5</sup>			1200		
		Yes 🗆 No				709					21.1		
□ EDD (Type)	# of Coolers:	.\				g pc							
	Cooler Temp(including CF):	uding CF): 1.7-6.2.2	(°C)			еџр					101116		
<u> </u>		rvative C. 6.	HEAL No.			M) 80		СКА 8 () <b>,</b> F, В	V) 092	S) 042	20 1830		
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If necessary, samples	bcontracted to other accre	dited laboratories. This ser	rves as notice of this	Hilidiana		'						20	31

Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-12 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 9:00:00 AM

 Lab ID:
 2111B17-001
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	d	Batch
EPA METHOD 300.0: ANIONS						A	Analyst:	JMT
Chloride	ND	60		mg/Kg	20	11/23/2021 4:36	6:39 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					A	Analyst:	SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/23/2021 5:15	5:59 PM	64126
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2021 5:15	5:59 PM	64126
Surr: DNOP	55.7	70-130	S	%Rec	1	11/23/2021 5:15	5:59 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						A	Analyst:	mb
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/24/2021 8:58	3:00 AM	64119
Surr: BFB	102	70-130		%Rec	1	11/24/2021 8:58	8:00 AM	64119
<b>EPA METHOD 8021B: VOLATILES</b>						A	Analyst:	mb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 8:58	3:00 AM	64119
Toluene	ND	0.048		mg/Kg	1	11/24/2021 8:58	3:00 AM	64119
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2021 8:58	3:00 AM	64119
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2021 8:58	3:00 AM	64119
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	11/24/2021 8:58	8:00 AM	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-13 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 9:10:00 AM

 Lab ID:
 2111B17-002
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analys	t: <b>JMT</b>
Chloride	69	60		mg/Kg	20	11/23/2021 4:49:00 PM	1 64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analys	t: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/23/2021 5:40:19 PM	1 64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 5:40:19 PM	1 64126
Surr: DNOP	50.5	70-130	S	%Rec	1	11/23/2021 5:40:19 PM	1 64126
EPA METHOD 8015D: GASOLINE RANGE						Analys	t: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/24/2021 9:17:00 AM	1 64119
Surr: BFB	102	70-130		%Rec	1	11/24/2021 9:17:00 AM	1 64119
EPA METHOD 8021B: VOLATILES						Analys	t: <b>mb</b>
Benzene	ND	0.024		mg/Kg	1	11/24/2021 9:17:00 AM	1 64119
Toluene	ND	0.047		mg/Kg	1	11/24/2021 9:17:00 AM	1 64119
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2021 9:17:00 AN	1 64119
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2021 9:17:00 AM	1 64119
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	11/24/2021 9:17:00 AM	1 64119

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-14 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 9:30:00 AM

 Lab ID:
 2111B17-003
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	JMT
Chloride	390	60		mg/Kg	20	11/23/2021 5:26:02 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst	SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/23/2021 6:04:47 PM	64126
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/23/2021 6:04:47 PM	64126
Surr: DNOP	50.6	70-130	S	%Rec	1	11/23/2021 6:04:47 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst	mb
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/24/2021 9:37:00 AM	64119
Surr: BFB	99.8	70-130		%Rec	1	11/24/2021 9:37:00 AM	64119
EPA METHOD 8021B: VOLATILES						Analyst	mb
Benzene	ND	0.025		mg/Kg	1	11/24/2021 9:37:00 AM	64119
Toluene	ND	0.050		mg/Kg	1	11/24/2021 9:37:00 AM	64119
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2021 9:37:00 AM	64119
Xylenes, Total	ND	0.099		mg/Kg	1	11/24/2021 9:37:00 AM	64119
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	11/24/2021 9:37:00 AM	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-15 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 9:40:00 AM

 Lab ID:
 2111B17-004
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analys	:: JMT
Chloride	84	60		mg/Kg	20	11/23/2021 5:38:23 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analys	:: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/23/2021 6:29:03 PM	64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 6:29:03 PM	64126
Surr: DNOP	47.8	70-130	S	%Rec	1	11/23/2021 6:29:03 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						Analys	:: mb
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/24/2021 9:57:00 AM	64119
Surr: BFB	102	70-130		%Rec	1	11/24/2021 9:57:00 AM	64119
EPA METHOD 8021B: VOLATILES						Analys	:: mb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 9:57:00 AM	64119
Toluene	ND	0.047		mg/Kg	1	11/24/2021 9:57:00 AM	64119
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2021 9:57:00 AM	l 64119
Xylenes, Total	ND	0.094		mg/Kg	1	11/24/2021 9:57:00 AM	l 64119
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	11/24/2021 9:57:00 AM	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: EOG** Client Sample ID: WES21-16 3'

**Project:** Warren ANW Federal 6 Collection Date: 11/19/2021 9:50:00 AM 2111B17-005 Lab ID: Matrix: SOIL Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>
Chloride	100	60		mg/Kg	20	11/23/2021 5:50:47 PM 64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/23/2021 6:53:22 PM 64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 6:53:22 PM 64126
Surr: DNOP	50.2	70-130	S	%Rec	1	11/23/2021 6:53:22 PM 64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/24/2021 10:16:00 AM 64119
Surr: BFB	92.4	70-130		%Rec	1	11/24/2021 10:16:00 AM 64119
EPA METHOD 8021B: VOLATILES						Analyst: <b>mb</b>
Benzene	ND	0.024		mg/Kg	1	11/24/2021 10:16:00 AM 64119
Toluene	ND	0.049		mg/Kg	1	11/24/2021 10:16:00 AM 64119
Ethylbenzene	ND	0.049		mg/Kg	1	11/24/2021 10:16:00 AM 64119
Xylenes, Total	ND	0.098		mg/Kg	1	11/24/2021 10:16:00 AM 64119
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	11/24/2021 10:16:00 AM 64119

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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-17 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:00:00 AM

 Lab ID:
 2111B17-006
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Bat	itch
EPA METHOD 300.0: ANIONS						Analyst: <b>JM</b>	/IΤ
Chloride	150	60		mg/Kg	20	11/23/2021 6:03:09 PM 641	134
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst: SB	3
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/23/2021 7:17:39 PM 641	126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 7:17:39 PM 641	126
Surr: DNOP	50.4	70-130	S	%Rec	1	11/23/2021 7:17:39 PM 641	126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>mb</b>	b
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/24/2021 10:36:00 AM 641	119
Surr: BFB	94.2	70-130		%Rec	1	11/24/2021 10:36:00 AM 641	119
EPA METHOD 8021B: VOLATILES						Analyst: <b>mb</b>	b
Benzene	ND	0.024		mg/Kg	1	11/24/2021 10:36:00 AM 641	119
Toluene	ND	0.048		mg/Kg	1	11/24/2021 10:36:00 AM 641	119
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2021 10:36:00 AM 641	119
Xylenes, Total	ND	0.096		mg/Kg	1	11/24/2021 10:36:00 AM 641	119
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	11/24/2021 10:36:00 AM 641	119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-18 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:10:00 AM

 Lab ID:
 2111B17-007
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed B	Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>J</b>	JMT
Chloride	180	60		mg/Kg	20	11/23/2021 6:15:30 PM 6	34134
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst: S	SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	11/23/2021 7:42:10 PM 6	34126
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/23/2021 7:42:10 PM 6	34126
Surr: DNOP	47.9	70-130	S	%Rec	1	11/23/2021 7:42:10 PM 6	34126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>n</b>	nb
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/24/2021 10:56:00 AM 6	34119
Surr: BFB	95.1	70-130		%Rec	1	11/24/2021 10:56:00 AM 6	34119
EPA METHOD 8021B: VOLATILES						Analyst: <b>n</b>	mb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 10:56:00 AM 6	34119
Toluene	ND	0.049		mg/Kg	1	11/24/2021 10:56:00 AM 6	34119
Ethylbenzene	ND	0.049		mg/Kg	1	11/24/2021 10:56:00 AM 6	34119
Xylenes, Total	ND	0.098		mg/Kg	1	11/24/2021 10:56:00 AM 6	34119
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	1	11/24/2021 10:56:00 AM 6	34119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-19 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:20:00 AM

 Lab ID:
 2111B17-008
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS						Analyst: <b>J</b> l	МТ
Chloride	200	60		mg/Kg	20	11/23/2021 6:27:51 PM 64	4134
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst: <b>S</b> I	В
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/23/2021 8:06:25 PM 64	4126
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/23/2021 8:06:25 PM 64	4126
Surr: DNOP	46.6	70-130	S	%Rec	1	11/23/2021 8:06:25 PM 64	4126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>m</b>	nb
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/24/2021 11:15:00 AM 64	4119
Surr: BFB	101	70-130		%Rec	1	11/24/2021 11:15:00 AM 64	4119
EPA METHOD 8021B: VOLATILES						Analyst: <b>m</b>	nb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 11:15:00 AM 64	4119
Toluene	ND	0.049		mg/Kg	1	11/24/2021 11:15:00 AM 64	4119
Ethylbenzene	ND	0.049		mg/Kg	1	11/24/2021 11:15:00 AM 64	4119
Xylenes, Total	ND	0.098		mg/Kg	1	11/24/2021 11:15:00 AM 64	4119
Surr: 4-Bromofluorobenzene	90.7	70-130		%Rec	1	11/24/2021 11:15:00 AM 64	4119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-20 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:30:00 AM

 Lab ID:
 2111B17-009
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	JMT
Chloride	ND	60		mg/Kg	20	11/23/2021 6:40:11 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst:	SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/23/2021 8:30:43 PM	64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 8:30:43 PM	64126
Surr: DNOP	47.2	70-130	S	%Rec	1	11/23/2021 8:30:43 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: ı	mb
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/24/2021 11:35:00 AM	64119
Surr: BFB	93.3	70-130		%Rec	1	11/24/2021 11:35:00 AM	64119
EPA METHOD 8021B: VOLATILES						Analyst: ı	mb
Benzene	ND	0.023		mg/Kg	1	11/24/2021 11:35:00 AM	64119
Toluene	ND	0.046		mg/Kg	1	11/24/2021 11:35:00 AM	64119
Ethylbenzene	ND	0.046		mg/Kg	1	11/24/2021 11:35:00 AM	64119
Xylenes, Total	ND	0.092		mg/Kg	1	11/24/2021 11:35:00 AM	64119
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	11/24/2021 11:35:00 AM	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-21 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:40:00 AM

 Lab ID:
 2111B17-010
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	JMT
Chloride	ND	60		mg/Kg	20	11/23/2021 6:52:32 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst:	SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/23/2021 8:54:56 PM	64126
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2021 8:54:56 PM	64126
Surr: DNOP	42.3	70-130	S	%Rec	1	11/23/2021 8:54:56 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	mb
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/24/2021 11:54:00 AM	64119
Surr: BFB	98.5	70-130		%Rec	1	11/24/2021 11:54:00 AM	64119
EPA METHOD 8021B: VOLATILES						Analyst:	mb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 11:54:00 AM	64119
Toluene	ND	0.047		mg/Kg	1	11/24/2021 11:54:00 AM	64119
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2021 11:54:00 AM	64119
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2021 11:54:00 AM	64119
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	11/24/2021 11:54:00 AM	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-22 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 10:50:00 AM

 Lab ID:
 2111B17-011
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	JMT
Chloride	ND	60		mg/Kg	20	11/23/2021 7:04:55 PM	64134
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst:	SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/23/2021 9:43:29 PM	64126
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/23/2021 9:43:29 PM	64126
Surr: DNOP	44.9	70-130	S	%Rec	1	11/23/2021 9:43:29 PM	64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	mb
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/24/2021 12:34:00 PM	64119
Surr: BFB	97.1	70-130		%Rec	1	11/24/2021 12:34:00 PM	1 64119
EPA METHOD 8021B: VOLATILES						Analyst:	mb
Benzene	ND	0.025		mg/Kg	1	11/24/2021 12:34:00 PM	1 64119
Toluene	ND	0.050		mg/Kg	1	11/24/2021 12:34:00 PM	1 64119
Ethylbenzene	ND	0.050		mg/Kg	1	11/24/2021 12:34:00 PM	1 64119
Xylenes, Total	ND	0.10		mg/Kg	1	11/24/2021 12:34:00 PM	1 64119
Surr: 4-Bromofluorobenzene	89.8	70-130		%Rec	1	11/24/2021 12:34:00 PM	1 64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-23 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 11:00:00 AM

 Lab ID:
 2111B17-012
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	11/23/2021 7:17:15 PM 64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/23/2021 10:07:53 PM 64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 10:07:53 PM 64126
Surr: DNOP	42.9	70-130	S	%Rec	1	11/23/2021 10:07:53 PM 64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/24/2021 12:53:00 PM 64119
Surr: BFB	95.6	70-130		%Rec	1	11/24/2021 12:53:00 PM 64119
EPA METHOD 8021B: VOLATILES						Analyst: <b>mb</b>
Benzene	ND	0.023		mg/Kg	1	11/24/2021 12:53:00 PM 64119
Toluene	ND	0.046		mg/Kg	1	11/24/2021 12:53:00 PM 64119
Ethylbenzene	ND	0.046		mg/Kg	1	11/24/2021 12:53:00 PM 64119
Xylenes, Total	ND	0.093		mg/Kg	1	11/24/2021 12:53:00 PM 64119
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	11/24/2021 12:53:00 PM 64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-24 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 11:10:00 AM

 Lab ID:
 2111B17-013
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Bato	ch
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>	Г
Chloride	ND	60		mg/Kg	20	11/23/2021 7:54:18 PM 6413	34
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst: SB	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/23/2021 10:31:59 PM 6412	26
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/23/2021 10:31:59 PM 6412	26
Surr: DNOP	44.9	70-130	S	%Rec	1	11/23/2021 10:31:59 PM 6412	26
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>mb</b>	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/24/2021 1:13:00 PM 6411	19
Surr: BFB	99.6	70-130		%Rec	1	11/24/2021 1:13:00 PM 6411	19
EPA METHOD 8021B: VOLATILES						Analyst: <b>mb</b>	
Benzene	ND	0.024		mg/Kg	1	11/24/2021 1:13:00 PM 6411	19
Toluene	ND	0.048		mg/Kg	1	11/24/2021 1:13:00 PM 6411	19
Ethylbenzene	ND	0.048		mg/Kg	1	11/24/2021 1:13:00 PM 6411	19
Xylenes, Total	ND	0.097		mg/Kg	1	11/24/2021 1:13:00 PM 6411	19
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	11/24/2021 1:13:00 PM 6411	19

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-25 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 11:20:00 AM

 Lab ID:
 2111B17-014
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed B	Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>J</b>	JMT
Chloride	ND	60		mg/Kg	20	11/23/2021 8:06:39 PM 6	34134
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst: <b>S</b>	3B
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/23/2021 10:56:12 PM 6	34126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 10:56:12 PM 6	34126
Surr: DNOP	34.2	70-130	S	%Rec	1	11/23/2021 10:56:12 PM 6	34126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>n</b>	nb
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/24/2021 1:33:00 PM 6	34119
Surr: BFB	90.1	70-130		%Rec	1	11/24/2021 1:33:00 PM 6	34119
EPA METHOD 8021B: VOLATILES						Analyst: <b>n</b>	nb
Benzene	ND	0.024		mg/Kg	1	11/24/2021 1:33:00 PM 6	64119
Toluene	ND	0.047		mg/Kg	1	11/24/2021 1:33:00 PM 6	64119
Ethylbenzene	ND	0.047		mg/Kg	1	11/24/2021 1:33:00 PM 6	64119
Xylenes, Total	ND	0.095		mg/Kg	1	11/24/2021 1:33:00 PM 6	64119
Surr: 4-Bromofluorobenzene	86.0	70-130		%Rec	1	11/24/2021 1:33:00 PM 6	64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-26 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/19/2021 11:30:00 AM

 Lab ID:
 2111B17-015
 Matrix: SOIL
 Received Date: 11/23/2021 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	11/23/2021 8:19:00 PM 64134
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/23/2021 11:20:19 PM 64126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/23/2021 11:20:19 PM 64126
Surr: DNOP	35.4	70-130	S	%Rec	1	11/23/2021 11:20:19 PM 64126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>mb</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/24/2021 1:52:00 PM 64119
Surr: BFB	93.7	70-130		%Rec	1	11/24/2021 1:52:00 PM 64119
EPA METHOD 8021B: VOLATILES						Analyst: <b>mb</b>
Benzene	ND	0.024		mg/Kg	1	11/24/2021 1:52:00 PM 64119
Toluene	ND	0.049		mg/Kg	1	11/24/2021 1:52:00 PM 64119
Ethylbenzene	ND	0.049		mg/Kg	1	11/24/2021 1:52:00 PM 64119
Xylenes, Total	ND	0.098		mg/Kg	1	11/24/2021 1:52:00 PM 64119
Surr: 4-Bromofluorobenzene	87.8	70-130		%Rec	1	11/24/2021 1:52:00 PM 64119

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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

December 03, 2021

Mike Moffitt
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX:

RE: Warren ANW Federal 6 OrderNo.: 2111B99

### Dear Mike Moffitt:

Hall Environmental Analysis Laboratory received 23 sample(s) on 11/24/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Andel

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-27 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 10:30:00 AM

 Lab ID:
 2111B99-001
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 9:51:11 PM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/29/2021 9:01:19 AM	64163
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 9:01:19 AM	64163
Surr: DNOP	86.0	70-130	%Rec	1	11/29/2021 9:01:19 AM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/26/2021 6:39:05 PM	64152
Surr: BFB	100	70-130	%Rec	1	11/26/2021 6:39:05 PM	64152
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	11/26/2021 6:39:05 PM	64152
Toluene	ND	0.049	mg/Kg	1	11/26/2021 6:39:05 PM	64152
Ethylbenzene	ND	0.049	mg/Kg	1	11/26/2021 6:39:05 PM	64152
Xylenes, Total	ND	0.099	mg/Kg	1	11/26/2021 6:39:05 PM	64152
Surr: 4-Bromofluorobenzene	99.7	70-130	%Rec	1	11/26/2021 6:39:05 PM	64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-28 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 10:40:00 AM

 Lab ID:
 2111B99-002
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batc
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 10:03:35 PM 6416
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/29/2021 9:12:54 AM 6416
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 9:12:54 AM 6416
Surr: DNOP	78.3	70-130	%Rec	1	11/29/2021 9:12:54 AM 6416
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/26/2021 7:02:29 PM 6415
Surr: BFB	100	70-130	%Rec	1	11/26/2021 7:02:29 PM 6415
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	11/26/2021 7:02:29 PM 6415
Toluene	ND	0.046	mg/Kg	1	11/26/2021 7:02:29 PM 6415
Ethylbenzene	ND	0.046	mg/Kg	1	11/26/2021 7:02:29 PM 6415
Xylenes, Total	ND	0.092	mg/Kg	1	11/26/2021 7:02:29 PM 6415
Surr: 4-Bromofluorobenzene	99.5	70-130	%Rec	1	11/26/2021 7:02:29 PM 6415

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-29 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 10:50:00 AM

 Lab ID:
 2111B99-003
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 10:40:49 PM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: SB
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	11/29/2021 9:24:57 AM 64163
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/29/2021 9:24:57 AM 64163
Surr: DNOP	77.0	70-130	%Rec	1	11/29/2021 9:24:57 AM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/26/2021 7:25:52 PM 64152
Surr: BFB	100	70-130	%Rec	1	11/26/2021 7:25:52 PM 64152
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/26/2021 7:25:52 PM 64152
Toluene	ND	0.048	mg/Kg	1	11/26/2021 7:25:52 PM 64152
Ethylbenzene	ND	0.048	mg/Kg	1	11/26/2021 7:25:52 PM 64152
Xylenes, Total	ND	0.096	mg/Kg	1	11/26/2021 7:25:52 PM 64152
Surr: 4-Bromofluorobenzene	99.0	70-130	%Rec	1	11/26/2021 7:25:52 PM 64152

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-30 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:00:00 AM

 Lab ID:
 2111B99-004
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 10:53:13 PM	l 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/29/2021 9:36:35 AM	64163
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 9:36:35 AM	64163
Surr: DNOP	73.3	70-130	%Rec	1	11/29/2021 9:36:35 AM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/26/2021 7:49:12 PM	64152
Surr: BFB	100	70-130	%Rec	1	11/26/2021 7:49:12 PM	64152
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	11/26/2021 7:49:12 PM	64152
Toluene	ND	0.049	mg/Kg	1	11/26/2021 7:49:12 PM	64152
Ethylbenzene	ND	0.049	mg/Kg	1	11/26/2021 7:49:12 PM	64152
Xylenes, Total	ND	0.098	mg/Kg	1	11/26/2021 7:49:12 PM	64152
Surr: 4-Bromofluorobenzene	99.5	70-130	%Rec	1	11/26/2021 7:49:12 PM	64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-31 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:10:00 AM

 Lab ID:
 2111B99-005
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 11:05:38 PM	1 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/29/2021 9:48:16 AM	64163
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 9:48:16 AM	64163
Surr: DNOP	71.0	70-130	%Rec	1	11/29/2021 9:48:16 AM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/26/2021 8:12:31 PM	64152
Surr: BFB	97.8	70-130	%Rec	1	11/26/2021 8:12:31 PM	64152
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.023	mg/Kg	1	11/26/2021 8:12:31 PM	64152
Toluene	ND	0.047	mg/Kg	1	11/26/2021 8:12:31 PM	64152
Ethylbenzene	ND	0.047	mg/Kg	1	11/26/2021 8:12:31 PM	64152
Xylenes, Total	ND	0.094	mg/Kg	1	11/26/2021 8:12:31 PM	64152
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec	1	11/26/2021 8:12:31 PM	64152

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-32 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:20:00 AM

 Lab ID:
 2111B99-006
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 11:18:02 PM	1 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/29/2021 2:17:42 PM	64163
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 2:17:42 PM	64163
Surr: DNOP	97.1	70-130	%Rec	1	11/29/2021 2:17:42 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/26/2021 8:35:52 PM	64152
Surr: BFB	99.1	70-130	%Rec	1	11/26/2021 8:35:52 PM	64152
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.025	mg/Kg	1	11/26/2021 8:35:52 PM	64152
Toluene	ND	0.050	mg/Kg	1	11/26/2021 8:35:52 PM	64152
Ethylbenzene	ND	0.050	mg/Kg	1	11/26/2021 8:35:52 PM	64152
Xylenes, Total	ND	0.10	mg/Kg	1	11/26/2021 8:35:52 PM	64152
Surr: 4-Bromofluorobenzene	98.2	70-130	%Rec	1	11/26/2021 8:35:52 PM	64152

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-33 2'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:30:00 AM

 Lab ID:
 2111B99-007
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch	h
EPA METHOD 300.0: ANIONS					Analyst: CAS	
Chloride	ND	60	mg/Kg	20	11/24/2021 11:30:27 PM 64167	7
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/29/2021 2:41:47 PM 64163	3
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 2:41:47 PM 64163	3
Surr: DNOP	97.6	70-130	%Rec	1	11/29/2021 2:41:47 PM 64163	3
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB	i
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/26/2021 8:59:07 PM 64152	2
Surr: BFB	98.8	70-130	%Rec	1	11/26/2021 8:59:07 PM 64152	2
EPA METHOD 8021B: VOLATILES					Analyst: NSB	i
Benzene	ND	0.024	mg/Kg	1	11/26/2021 8:59:07 PM 64152	2
Toluene	ND	0.049	mg/Kg	1	11/26/2021 8:59:07 PM 64152	2
Ethylbenzene	ND	0.049	mg/Kg	1	11/26/2021 8:59:07 PM 64152	2
Xylenes, Total	ND	0.097	mg/Kg	1	11/26/2021 8:59:07 PM 64152	2
Surr: 4-Bromofluorobenzene	98.0	70-130	%Rec	1	11/26/2021 8:59:07 PM 64152	2

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES21-34 3'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:40:00 AM

 Lab ID:
 2111B99-008
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 11:42:51 PM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/29/2021 3:05:54 PM 64163
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 3:05:54 PM 64163
Surr: DNOP	101	70-130	%Rec	1	11/29/2021 3:05:54 PM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/26/2021 10:08:50 PM 64152
Surr: BFB	97.3	70-130	%Rec	1	11/26/2021 10:08:50 PM 64152
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.023	mg/Kg	1	11/26/2021 10:08:50 PM 64152
Toluene	ND	0.046	mg/Kg	1	11/26/2021 10:08:50 PM 64152
Ethylbenzene	ND	0.046	mg/Kg	1	11/26/2021 10:08:50 PM 64152
Xylenes, Total	ND	0.092	mg/Kg	1	11/26/2021 10:08:50 PM 64152
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	11/26/2021 10:08:50 PM 64152

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-30 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 11:50:00 AM

 Lab ID:
 2111B99-009
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 11:55:16 PM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/29/2021 9:18:11 AM 64163
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/29/2021 9:18:11 AM 64163
Surr: DNOP	70.8	70-130	%Rec	1	11/29/2021 9:18:11 AM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/26/2021 10:32:04 PM 64152
Surr: BFB	98.5	70-130	%Rec	1	11/26/2021 10:32:04 PM 64152
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/26/2021 10:32:04 PM 64152
Toluene	ND	0.049	mg/Kg	1	11/26/2021 10:32:04 PM 64152
Ethylbenzene	ND	0.049	mg/Kg	1	11/26/2021 10:32:04 PM 64152
Xylenes, Total	ND	0.098	mg/Kg	1	11/26/2021 10:32:04 PM 64152
Surr: 4-Bromofluorobenzene	98.6	70-130	%Rec	1	11/26/2021 10:32:04 PM 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-31 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/22/2021 12:00:00 PM

 Lab ID:
 2111B99-010
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 12:07:41 AM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/29/2021 9:28:36 AM 64163
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 9:28:36 AM 64163
Surr: DNOP	70.6	70-130	%Rec	1	11/29/2021 9:28:36 AM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/26/2021 10:55:15 PM 64152
Surr: BFB	96.4	70-130	%Rec	1	11/26/2021 10:55:15 PM 64152
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/26/2021 10:55:15 PM 64152
Toluene	ND	0.047	mg/Kg	1	11/26/2021 10:55:15 PM 64152
Ethylbenzene	ND	0.047	mg/Kg	1	11/26/2021 10:55:15 PM 64152
Xylenes, Total	ND	0.095	mg/Kg	1	11/26/2021 10:55:15 PM 64152
Surr: 4-Bromofluorobenzene	97.3	70-130	%Rec	1	11/26/2021 10:55:15 PM 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** EOG Client Sample ID: BES21-32 6'

**Project:** Warren ANW Federal 6 **Collection Date:** 11/22/2021 12:10:00 PM 2111B99-011 Lab ID: Matrix: SOIL Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 12:20:06 AM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/29/2021 4:18:28 PM 64163
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 4:18:28 PM 64163
Surr: DNOP	97.3	70-130	%Rec	1	11/29/2021 4:18:28 PM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/26/2021 11:18:24 PM 64152
Surr: BFB	99.0	70-130	%Rec	1	11/26/2021 11:18:24 PM 64152
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/26/2021 11:18:24 PM 64152
Toluene	ND	0.047	mg/Kg	1	11/26/2021 11:18:24 PM 64152
Ethylbenzene	ND	0.047	mg/Kg	1	11/26/2021 11:18:24 PM 64152
Xylenes, Total	ND	0.095	mg/Kg	1	11/26/2021 11:18:24 PM 64152
Surr: 4-Bromofluorobenzene	98.3	70-130	%Rec	1	11/26/2021 11:18:24 PM 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-33 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:00:00 AM

 Lab ID:
 2111B99-012
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 12:32:31 AM 64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/29/2021 4:42:36 PM 64163
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 4:42:36 PM 64163
Surr: DNOP	99.0	70-130	%Rec	1	11/29/2021 4:42:36 PM 64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/26/2021 11:41:33 PM 64152
Surr: BFB	96.8	70-130	%Rec	1	11/26/2021 11:41:33 PM 64152
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/26/2021 11:41:33 PM 64152
Toluene	ND	0.048	mg/Kg	1	11/26/2021 11:41:33 PM 64152
Ethylbenzene	ND	0.048	mg/Kg	1	11/26/2021 11:41:33 PM 64152
Xylenes, Total	ND	0.095	mg/Kg	1	11/26/2021 11:41:33 PM 64152
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	11/26/2021 11:41:33 PM 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-34 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:10:00 AM

 Lab ID:
 2111B99-013
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	59	mg/Kg	20	11/25/2021 1:09:45 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/29/2021 5:06:39 PM	64163
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 5:06:39 PM	64163
Surr: DNOP	99.7	70-130	%Rec	1	11/29/2021 5:06:39 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/27/2021 12:04:37 AM	Л 64152
Surr: BFB	97.7	70-130	%Rec	1	11/27/2021 12:04:37 AM	Л 64152
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	11/27/2021 12:04:37 AM	Л 64152
Toluene	ND	0.048	mg/Kg	1	11/27/2021 12:04:37 AM	Л 64152
Ethylbenzene	ND	0.048	mg/Kg	1	11/27/2021 12:04:37 AM	Л 64152
Xylenes, Total	ND	0.096	mg/Kg	1	11/27/2021 12:04:37 AM	Л 64152
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec	1	11/27/2021 12:04:37 AM	<i>I</i> 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-35 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:20:00 AM

 Lab ID:
 2111B99-014
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>C</b>	CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 1:22:09 AM 64	34167
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: S	3B
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/29/2021 5:30:37 PM 64	34163
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 5:30:37 PM 64	34163
Surr: DNOP	100	70-130	%Rec	1	11/29/2021 5:30:37 PM 64	34163
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>N</b>	1SB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/27/2021 12:27:44 AM 64	34152
Surr: BFB	96.1	70-130	%Rec	1	11/27/2021 12:27:44 AM 64	34152
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>N</b>	1SB
Benzene	ND	0.024	mg/Kg	1	11/27/2021 12:27:44 AM 64	34152
Toluene	ND	0.047	mg/Kg	1	11/27/2021 12:27:44 AM 64	34152
Ethylbenzene	ND	0.047	mg/Kg	1	11/27/2021 12:27:44 AM 64	34152
Xylenes, Total	ND	0.095	mg/Kg	1	11/27/2021 12:27:44 AM 64	34152
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec	1	11/27/2021 12:27:44 AM 64	34152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-36 4'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:30:00 AM

 Lab ID:
 2111B99-015
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 1:34:34 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/29/2021 5:54:35 PM	64163
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 5:54:35 PM	64163
Surr: DNOP	106	70-130	%Rec	1	11/29/2021 5:54:35 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/27/2021 12:50:51 AM	Л 64152
Surr: BFB	97.0	70-130	%Rec	1	11/27/2021 12:50:51 AM	Л 64152
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.023	mg/Kg	1	11/27/2021 12:50:51 AM	Л 64152
Toluene	ND	0.047	mg/Kg	1	11/27/2021 12:50:51 AM	Л 64152
Ethylbenzene	ND	0.047	mg/Kg	1	11/27/2021 12:50:51 AN	И 64152
Xylenes, Total	ND	0.093	mg/Kg	1	11/27/2021 12:50:51 AN	Л 64152
Surr: 4-Bromofluorobenzene	96.6	70-130	%Rec	1	11/27/2021 12:50:51 AM	Л 64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-37 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:40:00 AM

 Lab ID:
 2111B99-016
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 1:46:59 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/29/2021 6:18:28 PM	64163
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 6:18:28 PM	64163
Surr: DNOP	99.9	70-130	%Rec	1	11/29/2021 6:18:28 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/27/2021 1:13:58 AM	64152
Surr: BFB	95.8	70-130	%Rec	1	11/27/2021 1:13:58 AM	64152
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.025	mg/Kg	1	11/27/2021 1:13:58 AM	64152
Toluene	ND	0.050	mg/Kg	1	11/27/2021 1:13:58 AM	64152
Ethylbenzene	ND	0.050	mg/Kg	1	11/27/2021 1:13:58 AM	64152
Xylenes, Total	ND	0.099	mg/Kg	1	11/27/2021 1:13:58 AM	64152
Surr: 4-Bromofluorobenzene	96.5	70-130	%Rec	1	11/27/2021 1:13:58 AM	64152

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Not in Range Page 16 of 27

Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-38 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 8:50:00 AM

 Lab ID:
 2111B99-017
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Bate
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	61	mg/Kg	20	11/25/2021 1:59:24 AM 6416
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>SB</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/29/2021 10:41:39 AM 6416
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 10:41:39 AM 6416
Surr: DNOP	74.1	70-130	%Rec	1	11/29/2021 10:41:39 AM 6416
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/27/2021 1:37:00 AM 6415
Surr: BFB	95.9	70-130	%Rec	1	11/27/2021 1:37:00 AM 6415
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/27/2021 1:37:00 AM 6415
Toluene	ND	0.048	mg/Kg	1	11/27/2021 1:37:00 AM 6415
Ethylbenzene	ND	0.048	mg/Kg	1	11/27/2021 1:37:00 AM 6415
Xylenes, Total	ND	0.095	mg/Kg	1	11/27/2021 1:37:00 AM 6415
Surr: 4-Bromofluorobenzene	96.0	70-130	%Rec	1	11/27/2021 1:37:00 AM 6415

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-39 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 9:00:00 AM

 Lab ID:
 2111B99-018
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 2:11:49 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/29/2021 7:06:02 PM	64163
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 7:06:02 PM	64163
Surr: DNOP	104	70-130	%Rec	1	11/29/2021 7:06:02 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	mb
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/29/2021 8:59:00 AM	64153
Surr: BFB	99.5	70-130	%Rec	1	11/29/2021 8:59:00 AM	64153
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.024	mg/Kg	1	11/29/2021 8:59:00 AM	64153
Toluene	ND	0.047	mg/Kg	1	11/29/2021 8:59:00 AM	64153
Ethylbenzene	ND	0.047	mg/Kg	1	11/29/2021 8:59:00 AM	64153
Xylenes, Total	ND	0.095	mg/Kg	1	11/29/2021 8:59:00 AM	64153
Surr: 4-Bromofluorobenzene	92.1	70-130	%Rec	1	11/29/2021 8:59:00 AM	64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-40 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 9:10:00 AM

 Lab ID:
 2111B99-019
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	59	mg/Kg	20	11/25/2021 2:24:13 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/29/2021 7:29:43 PM	64163
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/29/2021 7:29:43 PM	64163
Surr: DNOP	102	70-130	%Rec	1	11/29/2021 7:29:43 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	mb
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/29/2021 9:18:00 AM	64153
Surr: BFB	93.1	70-130	%Rec	1	11/29/2021 9:18:00 AM	64153
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.025	mg/Kg	1	11/29/2021 9:18:00 AM	64153
Toluene	ND	0.050	mg/Kg	1	11/29/2021 9:18:00 AM	64153
Ethylbenzene	ND	0.050	mg/Kg	1	11/29/2021 9:18:00 AM	64153
Xylenes, Total	ND	0.10	mg/Kg	1	11/29/2021 9:18:00 AM	64153
Surr: 4-Bromofluorobenzene	0.88	70-130	%Rec	1	11/29/2021 9:18:00 AM	64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-08 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 11:00:00 AM

 Lab ID:
 2111B99-020
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/25/2021 3:01:28 AM	64167
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/29/2021 7:53:23 PM	64163
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/29/2021 7:53:23 PM	64163
Surr: DNOP	104	70-130	%Rec	1	11/29/2021 7:53:23 PM	64163
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/29/2021 9:38:00 AM	64153
Surr: BFB	102	70-130	%Rec	1	11/29/2021 9:38:00 AM	64153
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	mb
Benzene	ND	0.023	mg/Kg	1	11/29/2021 9:38:00 AM	64153
Toluene	ND	0.047	mg/Kg	1	11/29/2021 9:38:00 AM	64153
Ethylbenzene	ND	0.047	mg/Kg	1	11/29/2021 9:38:00 AM	64153
Xylenes, Total	ND	0.094	mg/Kg	1	11/29/2021 9:38:00 AM	64153
Surr: 4-Bromofluorobenzene	94.8	70-130	%Rec	1	11/29/2021 9:38:00 AM	64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-09 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 11:10:00 AM

 Lab ID:
 2111B99-021
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/24/2021 7:10:26 PM	64170
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/29/2021 8:17:02 PM	64165
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/29/2021 8:17:02 PM	64165
Surr: DNOP	105	70-130	%Rec	1	11/29/2021 8:17:02 PM	64165
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/29/2021 9:58:00 AM	64153
Surr: BFB	98.0	70-130	%Rec	1	11/29/2021 9:58:00 AM	64153
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.023	mg/Kg	1	11/29/2021 9:58:00 AM	64153
Toluene	ND	0.047	mg/Kg	1	11/29/2021 9:58:00 AM	64153
Ethylbenzene	ND	0.047	mg/Kg	1	11/29/2021 9:58:00 AM	64153
Xylenes, Total	ND	0.093	mg/Kg	1	11/29/2021 9:58:00 AM	64153
Surr: 4-Bromofluorobenzene	92.2	70-130	%Rec	1	11/29/2021 9:58:00 AM	64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-16 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 11:20:00 AM

 Lab ID:
 2111B99-022
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	150	60	mg/Kg	20	11/24/2021 7:47:30 PM	64170
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/29/2021 8:40:40 PM	64165
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/29/2021 8:40:40 PM	64165
Surr: DNOP	106	70-130	%Rec	1	11/29/2021 8:40:40 PM	64165
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	mb
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/29/2021 10:17:00 AM	1 64153
Surr: BFB	95.5	70-130	%Rec	1	11/29/2021 10:17:00 AM	l 64153
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.023	mg/Kg	1	11/29/2021 10:17:00 AM	1 64153
Toluene	ND	0.047	mg/Kg	1	11/29/2021 10:17:00 AM	1 64153
Ethylbenzene	ND	0.047	mg/Kg	1	11/29/2021 10:17:00 AM	1 64153
Xylenes, Total	ND	0.094	mg/Kg	1	11/29/2021 10:17:00 AM	1 64153
Surr: 4-Bromofluorobenzene	89.5	70-130	%Rec	1	11/29/2021 10:17:00 AM	l 64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/3/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES21-17 6'

 Project:
 Warren ANW Federal 6
 Collection Date: 11/23/2021 11:30:00 AM

 Lab ID:
 2111B99-023
 Matrix: SOIL
 Received Date: 11/24/2021 7:43:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	150	60	mg/Kg	20	11/24/2021 7:59:52 PM	64170
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/29/2021 9:04:12 PM	64165
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/29/2021 9:04:12 PM	64165
Surr: DNOP	102	70-130	%Rec	1	11/29/2021 9:04:12 PM	64165
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	mb
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/29/2021 10:37:00 AM	64153
Surr: BFB	98.0	70-130	%Rec	1	11/29/2021 10:37:00 AM	64153
EPA METHOD 8021B: VOLATILES					Analyst:	mb
Benzene	ND	0.024	mg/Kg	1	11/29/2021 10:37:00 AM	64153
Toluene	ND	0.049	mg/Kg	1	11/29/2021 10:37:00 AM	64153
Ethylbenzene	ND	0.049	mg/Kg	1	11/29/2021 10:37:00 AM	64153
Xylenes, Total	ND	0.097	mg/Kg	1	11/29/2021 10:37:00 AM	64153
Surr: 4-Bromofluorobenzene	91.0	70-130	%Rec	1	11/29/2021 10:37:00 AM	64153

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2111B99** 

03-Dec-21

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: MB-64170 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **64170** RunNo: **83124** 

Prep Date: 11/24/2021 Analysis Date: 11/24/2021 SeqNo: 2953041 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-64170 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64170 RunNo: 83124

Prep Date: 11/24/2021 Analysis Date: 11/24/2021 SeqNo: 2953042 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 93.1 90 110

Sample ID: MB-64167 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 64167 RunNo: 83132

Prep Date: 11/24/2021 Analysis Date: 11/24/2021 SeqNo: 2953305 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-64167 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64167 RunNo: 83132

Prep Date: 11/24/2021 Analysis Date: 11/24/2021 SeqNo: 2953306 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 90.5 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

4.6

2111B99

WO#:

03-Dec-21

**Client: EOG** 

Surr: DNOP

**Project:** Warren ANW Federal 6

Sample ID: MB-64163 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 64163 RunNo: 83128 Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953454 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result PQL HighLimit Qual

Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 10.00 70 9.3 92.8 130

Sample ID: LCS-64163 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 64163 RunNo: 83128 Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953456 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 48 10 95.9 68.9 135 50.00

91.1

70

130

Sample ID: MB-64165 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 64165 RunNo: 83128 Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953508 Units: mg/Kg 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 Surr: DNOP 9.5 10.00 95.4 70 130

5.000

Sample ID: LCS-64165 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 64165 RunNo: 83128

Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953509 Units: mg/Kg

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

Diesel Range Organics (DRO) 48 10 68.9 50.00 96.1 135 Surr: DNOP 4.6 5.000 92.1 130 70

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2111B99 03-Dec-21

WO#:

**Client: EOG** 

Sample ID: mb-64153

**Project:** Warren ANW Federal 6

Sample ID: mb-64152 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 64152 RunNo: 83120

Prep Date: 11/24/2021 Analysis Date: 11/26/2021 SeqNo: 2952588 Units: mq/Kq

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 980 1000 98.4 70 130

Sample ID: Ics-64152 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 64152 RunNo: 83120

Prep Date: 11/24/2021 Analysis Date: 11/26/2021 SeqNo: 2952589 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 5.0 25.00 O 91.8 78.6 131

TestCode: EPA Method 8015D: Gasoline Range

70

130

Surr: BFB 1100 1000 110 70 130

SampType: MBLK Client ID: PBS Batch ID: 64153 RunNo: 83126

Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953109 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 70 960 1000 96.3 130

Sample ID: Ics-64153 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

1000

Client ID: LCSS Batch ID: 64153 RunNo: 83126

1100

Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953110 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** PQL LowLimit Qual Gasoline Range Organics (GRO) 23 5.0 25.00 93.6 78.6 131

Qualifiers:

Surr: BFB

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix interference

Analyte detected in the associated Method Blank

111

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 26 of 27

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2111B99

03-Dec-21

**Client: EOG** 

**Project:** Warren ANW Federal 6

Sample ID: mb-64152 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 64152 RunNo: 83120

Prep Date: 11/24/2021 Analysis Date: 11/26/2021 SeqNo: 2952615 Units: mq/Kq

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

Benzene ND 0.025 Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 0.98 1.000 98.3 70 130

Sample ID: LCS-64152 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 64152 RunNo: 83120

Analysis Date: 11/26/2021 SeqNo: 2952616 Prep Date: 11/24/2021

Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 1.000 87.6 80 0.88 0.025 n 120 Benzene Toluene 0.87 0.050 1.000 0 87.3 80 120 0.050 0 88.0 80 0.88 1.000 120 Ethylbenzene 0 88.4 80 Xylenes, Total 2.7 0.10 3.000 120 Surr: 4-Bromofluorobenzene 1.0 1.000 101 70 130

SampType: MBLK TestCode: EPA Method 8021B: Volatiles Sample ID: mb-64153

Client ID: PBS Batch ID: 64153 RunNo: 83126

Prep Date: 11/24/2021 Analysis Date: 11/29/2021 SeqNo: 2953112 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual ND 0.025 Benzene Toluene ND 0.050

ND 0.050 Ethylbenzene Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 0.92 1.000 916 70 130

Sample ID: Ics-64153 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Batch ID: 64153 RunNo: 83126 Client ID: LCSS

Prep Date: 11/24/2021	Prep Date: 11/24/2021 Analysis Date: 11/29/2021		S	SeqNo: 2953113 Units: mg/Kg			g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	82.8	80	120			
Toluene	0.84	0.050	1.000	0	84.5	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.1	80	120			
Xylenes, Total	2.6	0.10	3.000	0	85.7	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	70	130			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Page 27 of 27



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client	ent Name: EOG Work Order Num				Order Numb	er: <b>211</b>	1B99			RcptNo: 1				
Receiv	ved By:	Cheyenn	e Cason	11/24/20	21 7:43:00	АМ		Chem	1					
Comp	leted By:	Desiree I	Dominguez	11/24/20	21 8:09:57	AM		Chem	_					
Revie	wed By:	jn u/z	24/21					14.	3					
Chain	of Cus	tody												
1. Is C	Chain of Cu	ıstody com	plete?			Yes	<b>~</b>	No		Not Present				
2. Hov	w was the	sample deli	vered?			Cou	rier							
Log i	<u>In</u>													
3. Was	s an attem	pt made to	cool the samples?			Yes	<b>V</b>	No		NA 🗌				
4. Wer	re all samp	les receive	d at a temperature	of >0° C to	6.0°C	Yes	<b>v</b>	No		NA 🗆				
5. San	nple(s) in p	roper conta	ainer(s)?			Yes	<b>V</b>	No						
6. Suffi	icient samı	ole volume	for indicated test(s	s)?		Yes	<b>v</b>	No						
7. Are	samples (e	except VOA	and ONG) proper	ly preserved	?	Yes	<b>✓</b>	No						
8. Was	preservat	ive added to	o bottles?			Yes		No	<b>V</b>	NA 🗌				
9. Rece	eived at lea	ast 1 vial wi	th headspace <1/4	l" for AQ VC	)A?	Yes		No		NA 🗸				
10. Wer	re any sam	ple contain	ers received broke	en?		Yes		No	<b>V</b>					
										# of preserved bottles checked				
			ottle labels? ain of custody)			Yes	<b>✓</b>	No		for pH:	≯12 unless noted)			
			ntified on Chain of	Custody?		Yes	<b>V</b>	No	П	Adjusted?	2 12 unless noteu)			
			ere requested?	•		Yes	<b>✓</b>	No						
			e to be met? authorization.)			Yes	<b>✓</b>	No		Checked by:	ac 11/24/4			
		ng (if apı												
			liscrepancies with	this order?		Yes		No		NA 🗹				
	Person N	Notified:			Date:		venion van		manuscon'	20000.0				
	By Whor	n:		The same of the sa	Via:	□ еМа	ail 🗌	Phone	Fax	☐ In Person				
	Regardir	ıg:			Call St. Wilder Land				in wareness					
	Client Ins	structions:					h i n a mana		researches.					
16. Add	ditional rem	narks:												
17. Cod	oler Inforn	nation												
	Cooler No	Temp °C	Condition S	eal Intact	Seal No	Seal Da	ate	Signed	Ву	Yesioloon				
1		3.1	Good					-	W - 1 C UT	The second secon				
2		4.9	Good											

This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	ratories. This serves as notice of this p	contracted to other accredited labor	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.	Rece If necessary
	10.214 60.24	ころくくろう	Record	1900
13.11 KOK 1	Date Time	Received by: Via:	Relinquished by:	te: Ilme:
	1/23/21 134D	7		
Remarks: CC: Chance Dixon Michael	Time	Received by: Via:	remidusted by:	CD:
	0		BES21-33 7'	w
	110-		BEST-326	12:10
	010		BESCH3) 0'	22 2::3
	-009		BES21-30 4	11:56
	-008		NESO-34 3'	9 PM
	-007		11ES21-33 2	11:36
	1006		WESDY32 2"	11:20
	-005		1/ES27-3) 2'	01:16
	-004		NESZ1-30 Z)	11:00
	-003		NESD-29 21	10:50
24	-002		1 82-1231	10:40
	-801	002 TCC	SOIT WESDIZT 2	11/22 10:30
BTEX MT TPH:8015D 8081 Pestic EDB (Methor PAHs by 83 RCRA 8 Me CI, F, Br, N 8260 (VOA) 8270 (Semi	19-024.9 (°C) HEAL No. 2111B99	Cooler Temp(including cr): ५.৫ Container Container Type and # Type	Matrix Sample Name	Date Time
(GF cide cide 310 stals NO <sub>3</sub>	366	# of Coolers: 2 3		□ EDD (Type)
RO / DR s/8082 504.1) or 827 s , NO <sub>2</sub>	D.XOD	Sampler: Chancel On Ice: Y Yes	☐ Az Compliance ☐ Other	Accreditation:
2 PCB's 70SIMS , PO <sub>4</sub> , S	Moffitt	Michael M	/ □ Level 4 (Full Validation)	QA/QC Package:
O)		Project Manager:		email or Fax#:
Anal	8-011	216-03275		Phone #:
G		Project #:	4	
4901 Hawkins NE - Albuquerque, NM 87109	ANN FEDERAL \$6	Warren ANN	07 Fil	Mailing Address:
		35		Pag
	Rush_	□ Standard □ 🗚	7	<sup>2</sup> Client:
I HALL ENVIDONMENTAL	1-009	Turn-Around Time: /	Chain-of-Custody Record	of 3 Chain
				17

Released to Imaging: 3/10/2022 3:52:55 PM

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

Receive Will Manager	72		Date: Time:	/18/	202	2 2::	38:1	9 PM	000	9.00	8.50	8:40	8:30	8:20	11123 8:10	Date Time		□ EDD (Type)	□ NELAC	Accreditation:	□ Standard	QA/QC Package:	email or Fax#:	Phone #:		Mailing Address:	Pag	e 27 lient:	S of 31 Chai
ary, samples subm	Relinquished by:		Relinquished by:		6.9	- GIC	B		>	0	0	Ó	Os.	0	0 30,7	Matrix		(9)	□ Other			ge:	r.			385: (3h /		5\	n-of-Cu
If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the applytical report.	d by:		d by:		BES 21-17 6	BE27-10 6	BESD-096	RES21-08 61	BES21-96 6'	BESZ1-39 6'	BE521-38 6	BES21-37 6	3E527-36 4	BESC: 35 4	BESZ1-34 4	Sample Name				Az Compliance	☐ Level 4 (Full Validation)					No			Chain-of-Custody Record
Joseph Contracted to other au	Received by:	Muuu	Received by:	_										_	20 4	Type and #	Cooler Temp	# of Coolers:	On Ice:	Sampler: C	,	Michael	Project Manager:	215-0	Project #:	warren	Project Name:	□ Standard	Turn-Around Time:
CONTRY II	Via:		Via:		<									_	TCC	Туре	Cooler Temp(including CF): Se	2	ů,	hance Dis		-	ager:	3278-		ANN	e.	Rush	Time: /レカ
24/a 0743	Date Time	2	Date Time		-023	-077	120-	-020	-019	~018	-017	-016	-015	1014	-013	2111899 (	HENI NO		□ No	NON	•	45, 350M		Off		Federal #6			pay
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the and	Resources	, ;	- 1																						Fax 505-345-4107	Albuquerque, NM 87109	m	LABORATOR	ENVIDONMENTAL
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# HALL ENVIRONMENTAL ANALYSIS LABORATORY



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

January 21, 2022

Mike Moffitt EOG 105 South Fourth Street Artesia, NM 88210 TEL: FAX

RE: Warren ANW Federal 6 OrderNo.: 2201647

#### Dear Mike Moffitt:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/18/2022 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

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 1/21/2022

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES22-35 3'

**Project:** Warren ANW Federal 6 **Collection Date:** 1/14/2022 9:00:00 AM

**Lab ID:** 2201647-001 **Matrix:** MEOH (SOIL) **Received Date:** 1/18/2022 7:40:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analysi	CAS
Chloride	ND	60	mg/Kg	20	1/18/2022 5:44:04 PM	65084
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	:: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	1/18/2022 10:16:59 PM	65069
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/18/2022 10:16:59 PM	l 65069
Surr: DNOP	91.8	70-130	%Rec	1	1/18/2022 10:16:59 PM	1 65069
EPA METHOD 8015D: GASOLINE RANGE					Analyst	:: mb
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	1/18/2022 9:45:00 AM	65036
Surr: BFB	85.5	70-130	%Rec	1	1/18/2022 9:45:00 AM	65036
EPA METHOD 8021B: VOLATILES					Analyst	:: mb
Benzene	ND	0.018	mg/Kg	1	1/18/2022 9:45:00 AM	65036
Toluene	ND	0.036	mg/Kg	1	1/18/2022 9:45:00 AM	65036
Ethylbenzene	ND	0.036	mg/Kg	1	1/18/2022 9:45:00 AM	65036
Xylenes, Total	ND	0.072	mg/Kg	1	1/18/2022 9:45:00 AM	65036
Surr: 4-Bromofluorobenzene	88.1	70-130	%Rec	1	1/18/2022 9:45:00 AM	65036

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S  $\,$   $\,$  % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 6

Date Reported: 1/21/2022

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES22-36 3'

**Project:** Warren ANW Federal 6 **Collection Date:** 1/14/2022 9:10:00 AM

**Lab ID:** 2201647-002 **Matrix:** MEOH (SOIL) **Received Date:** 1/18/2022 7:40:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	1/18/2022 6:46:05 PM	65084
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	9.7	9.5	mg/Kg	1	1/18/2022 10:40:47 PM	65069
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/18/2022 10:40:47 PM	65069
Surr: DNOP	96.6	70-130	%Rec	1	1/18/2022 10:40:47 PM	65069
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	1/18/2022 10:04:00 AM	65036
Surr: BFB	83.8	70-130	%Rec	1	1/18/2022 10:04:00 AM	65036
EPA METHOD 8021B: VOLATILES					Analyst	mb
Benzene	ND	0.018	mg/Kg	1	1/18/2022 10:04:00 AM	65036
Toluene	ND	0.037	mg/Kg	1	1/18/2022 10:04:00 AM	65036
Ethylbenzene	ND	0.037	mg/Kg	1	1/18/2022 10:04:00 AM	65036
Xylenes, Total	ND	0.074	mg/Kg	1	1/18/2022 10:04:00 AM	65036
Surr: 4-Bromofluorobenzene	87.2	70-130	%Rec	1	1/18/2022 10:04:00 AM	65036

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2201647** 

21-Jan-22

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: MB-65084 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **65084** RunNo: **85246** 

Prep Date: 1/18/2022 Analysis Date: 1/18/2022 SeqNo: 2999044 Units: mg/Kg

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

Chloride ND 1.5

Sample ID: LCS-65084 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 65084 RunNo: 85246

Prep Date: 1/18/2022 Analysis Date: 1/18/2022 SeqNo: 2999045 Units: mg/Kg

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

Chloride 15 1.5 15.00 0 97.3 90 110

#### Qualifiers:

Page 3 of 6

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

## Hall Environmental Analysis Laboratory, Inc.

21-Jan-22

2201647

WO#:

Client: EOG

**Project:** Warren ANW Federal 6

Sample ID: MB-65069 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 65069 RunNo: 85250

Prep Date: 1/18/2022 Analysis Date: 1/18/2022 SeqNo: 2999132 Units: mg/Kg

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

Surr: DNOP 9.5 10.00 95.5 70 130

Sample ID: LCS-65069 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 65069 RunNo: 85250

Prep Date: 1/18/2022 Analysis Date: 1/18/2022 SeqNo: 2999135 Units: mg/Kg

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

Diesel Range Organics (DRO) 47 10 50.00 0 94.2 68.9 135 Surr: DNOP 4.3 5.000 86.2 70 130

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 4 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2201647 21-Jan-22** 

Client: EOG

Surr: BFB

**Project:** Warren ANW Federal 6

Sample ID: mb-65036 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 65036 RunNo: 85219

Prep Date: 1/14/2022 Analysis Date: 1/18/2022 SeqNo: 2998211 Units: mg/Kg

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 890 1000 89.0 70 130

Sample ID: Ics-65036 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 65036 RunNo: 85219

1000

Prep Date: 1/14/2022 Analysis Date: 1/18/2022 SeqNo: 2998212 Units: mg/Kg

1000

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) 23 5.0 25.00 0 91.7 78.6 131

100

70

130

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 6

## Hall Environmental Analysis Laboratory, Inc.

0.88

WO#: **2201647 21-.Jan-22** 

CIL-1-4. FOC

Client: EOG

Surr: 4-Bromofluorobenzene

**Project:** Warren ANW Federal 6

Sample ID: mb-65036 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: 65036 RunNo: 85219

Prep Date: 1/14/2022 Analysis Date: 1/18/2022 SeqNo: 2998215 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 0.88 1.000 87.7 70 130

1.000

Sample ID: Ics-65036 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 65036 RunNo: 85219 Prep Date: 1/14/2022 Analysis Date: 1/18/2022 SeqNo: 2998216 Units: mg/Kg SPK value SPK Ref Val %RPD Analyte Result **PQL** %REC LowLimit HighLimit **RPDLimit** Qual Benzene 1.0 0.025 1.000 0 102 80 120 Toluene 1.0 0.050 1.000 0 102 80 120 0 101 80 Ethylbenzene 1.0 0.050 1.000 120 Xylenes, Total 3.0 0.10 3.000 0 99 4 80 120

87.8

70

130

#### Qualifiers:

Page 6 of 6

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

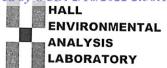
B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client Name: EOG	Work Order Num	nber: 2201647		RcptNo:	Í
Received By: Tracy Casarrubias	1/18/2022 7:40:00	АМ			
Completed By: Cheyenne Cason	1/18/2022 7:56:08	AM	Chal		
Reviewed By: Sa 1/18/22			Control		
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 $\square$	
4. Were all samples received at a temperatur	e 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 🗌		
$7.\ \text{Are samples (except VOA and ONG) property}$	erly preserved?	Yes 🗸	No 🗌		
8. Was preservative added to bottles?		Yes	No 🗸	NA 🗌	
9. Received at least 1 vial with headspace <1/		Yes	No 🗌	NA 🗹	
<ol><li>Were any sample containers received broken</li></ol>	en?	Yes	No 🗸	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗸	No 🗆	bottles checked for pH:	2 unless noted)
2. Are matrices correctly identified on Chain o	f Custody?	Yes 🗸	No 🗆	Adjusted?	z umess noted)
3. Is it clear what analyses were requested?		Yes 🗸	No 🗌		
4. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No 🗌	Checked by:	e 1/18/22
Special Handling (if applicable)					
15. Was client notified of all discrepancies with	this order?	Yes	No 🗌	NA 🗸	
Person Notified:	Date:	#4F1C#601236412453642C62246	exercising medicine entirely.		
By Whom:	Via:	eMail P	hone  Fax	In Person	
Regarding:	MARCONING TRUBANCH TO SECTION THE SECTION OF THE PROPERTY OF THE SECTION OF THE S	And hour has been all a second	THE PARTY OF THE P	enderstanding in health replicate and interestant	
Client Instructions:	The second secon	Acres ex 23 do 100 Res Octobro Double, de	THE STREET STREET, STR	CANCEL CONTROL OF SECURIOR STORY	
16. Additional remarks:					
7. Cooler Information					
	eal Intact Seal No	Seal Date	Signed By		
1 4.7 Good No	t Present				

HALL ENVIRONMENTAL ANALYSIS LABORATORY  www.hallenvironmental.com  kins NE - Albuquerque, NM 87109  345-3975 Fax 505-345-4107  Analysis Request	CI,/F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> 8260 (VOA) 8270 (Semi-VOA) Total Coliform (Present/Absent)	
### HALL ANAL ANAL www.hal 4901 Hawkins NE - Tel. 505-345-3975	BTEXY MTBE / TMB's (8021) TPH:8015D(GRO / DRO / MRO) 8081 Pesticides/8082 PCB's PAHs by 8310 or 8270SIMS RCRA 8 Metals	Remarks: CC: Chanz
Turn-Around Time: /-Day  Standard	Project Manager:  M. K. MOFF) Et  Sampler: C. N  On Ice:	16/8/
of-Custody Record  Tun  Don Fill  Proj	Compliance   Other   Sample Name	SOUT WESZZ-35 3'  WESZZ-36 3'  Relinquished by:  Relinquished by:
Client: £O(\$\vec{\vec{\vec{\vec{\vec{\vec{\vec{	email or Fax#:  QA/QC Package:  Standard  Accreditation:  DELAC  EDD (Type)	

Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES22-37 3'

 Project:
 Warren ANW Federal #6
 Collection Date: 2/11/2022 7:15:00 AM

 Lab ID:
 2202639-001
 Matrix: MEOH (SOIL)
 Received Date: 2/12/2022 8:55:00 AM

Result **POL Oual Units DF** Date Analyzed **Batch** Analyses **EPA METHOD 300.0: ANIONS** Analyst: **JMT** Chloride 6100 300 mg/Kg 100 2/15/2022 65522 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) 47 9.6 mg/Kg 2/14/2022 1:08:58 PM 65516 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 2/14/2022 1:08:58 PM 65516 Surr: DNOP 105 65516 51.1-141 %Rec 2/14/2022 1:08:58 PM Analyst: RAA **EPA METHOD 8015D: GASOLINE RANGE** 2/12/2022 6:57:00 PM Gasoline Range Organics (GRO) ND 4.0 R85801 mg/Kg 1 Surr: BFB 96.9 70-130 %Rec 2/12/2022 6:57:00 PM R85801 **EPA METHOD 8021B: VOLATILES** Analyst: RAA ND 0.020 mg/Kg 2/12/2022 6:57:00 PM BS85801 Benzene Toluene ND 0.040 mg/Kg 2/12/2022 6:57:00 PM BS85801 Ethylbenzene ND 0.040 mg/Kg 1 2/12/2022 6:57:00 PM BS85801 Xylenes, Total ND 0.079 mg/Kg 2/12/2022 6:57:00 PM BS85801 Surr: 4-Bromofluorobenzene 70-130 BS85801 99.9 %Rec 2/12/2022 6:57:00 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES22-38 3'

**Project:** Warren ANW Federal #6 **Collection Date:** 2/11/2022 7:20:00 AM

**Lab ID:** 2202639-002 **Matrix:** MEOH (SOIL) **Received Date:** 2/12/2022 8:55:00 AM

Analyses	Result	PQL	Qual Units	DF	Batch	
EPA METHOD 300.0: ANIONS					Analys	:: JMT
Chloride	6200	300	mg/Kg	100	2/15/2022	65522
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analys	: SB
Diesel Range Organics (DRO)	61	9.6	mg/Kg	1	2/14/2022 1:33:02 PM	65516
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	2/14/2022 1:33:02 PM	65516
Surr: DNOP	101	51.1-141	%Rec	1	2/14/2022 1:33:02 PM	65516
EPA METHOD 8015D: GASOLINE RANGE					Analys	:: RAA
Gasoline Range Organics (GRO)	ND	4.2	mg/Kg	1	2/12/2022 7:17:00 PM	R85801
Surr: BFB	94.5	70-130	%Rec	1	2/12/2022 7:17:00 PM	R85801
EPA METHOD 8021B: VOLATILES					Analys	: RAA
Benzene	ND	0.021	mg/Kg	1	2/12/2022 7:17:00 PM	BS85801
Toluene	ND	0.042	mg/Kg	1	2/12/2022 7:17:00 PM	BS85801
Ethylbenzene	ND	0.042	mg/Kg	1	2/12/2022 7:17:00 PM	BS85801
Xylenes, Total	ND	0.084	mg/Kg	1	2/12/2022 7:17:00 PM	BS85801
Surr: 4-Bromofluorobenzene	87.8	70-130	%Rec	1	2/12/2022 7:17:00 PM	BS85801

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported:

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: WES22-39 3'

**Project:** Warren ANW Federal #6 **Collection Date:** 2/11/2022 7:25:00 AM

**Lab ID:** 2202639-003 **Matrix:** MEOH (SOIL) **Received Date:** 2/12/2022 8:55:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyze	d	Batch
EPA METHOD 300.0: ANIONS						Analyst:	JMT
Chloride	6200	300	mg/Kg	100	2/15/2022		65522
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst:	SB
Diesel Range Organics (DRO)	29	9.4	mg/Kg	1	2/14/2022 1:57	:12 PM	65516
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	2/14/2022 1:57	:12 PM	65516
Surr: DNOP	92.2	51.1-141	%Rec	1	2/14/2022 1:57	:12 PM	65516
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	2/12/2022 7:37	:00 PM	R85801
Surr: BFB	96.7	70-130	%Rec	1	2/12/2022 7:37	:00 PM	R85801
EPA METHOD 8021B: VOLATILES						Analyst:	RAA
Benzene	ND	0.020	mg/Kg	1	2/12/2022 7:37	:00 PM	BS85801
Toluene	ND	0.040	mg/Kg	1	2/12/2022 7:37	:00 PM	BS85801
Ethylbenzene	ND	0.040	mg/Kg	1	2/12/2022 7:37	:00 PM	BS85801
Xylenes, Total	ND	0.081	mg/Kg	1	2/12/2022 7:37	:00 PM	BS85801
Surr: 4-Bromofluorobenzene	88.3	70-130	%Rec	1	2/12/2022 7:37	:00 PM	BS85801

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

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# Hall Environmental Analysis Laboratory, Inc.

Date Reported:

CLIENT: EOG Client Sample ID: WES22-40 3'

**Project:** Warren ANW Federal #6 **Collection Date:** 2/11/2022 7:30:00 AM

**Lab ID:** 2202639-004 **Matrix:** MEOH (SOIL) **Received Date:** 2/12/2022 8:55:00 AM

Analyses	Result	PQL Q	Qual Units	DF Date Analyzed		Batch	
EPA METHOD 300.0: ANIONS						Analyst:	JMT
Chloride	5800	300	mg/Kg	100	2/15/2022		65522
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst:	SB
Diesel Range Organics (DRO)	64	9.1	mg/Kg	1	2/14/2022 2:21	1:25 PM	65516
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	2/14/2022 2:2	1:25 PM	65516
Surr: DNOP	77.1	51.1-141	%Rec	1	2/14/2022 2:21	1:25 PM	65516
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	5.4	mg/Kg	1	2/12/2022 7:57	7:00 PM	R85801
Surr: BFB	94.4	70-130	%Rec	1	2/12/2022 7:57	7:00 PM	R85801
EPA METHOD 8021B: VOLATILES						Analyst:	RAA
Benzene	ND	0.027	mg/Kg	1	2/12/2022 7:57	7:00 PM	BS85801
Toluene	ND	0.054	mg/Kg	1	2/12/2022 7:57	7:00 PM	BS85801
Ethylbenzene	ND	0.054	mg/Kg	1	2/12/2022 7:57	7:00 PM	BS85801
Xylenes, Total	ND	0.11	mg/Kg	1	2/12/2022 7:57	7:00 PM	BS85801
Surr: 4-Bromofluorobenzene	96.9	70-130	%Rec	1	2/12/2022 7:57	7:00 PM	BS85801

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2202639-005

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

Lab ID:

Benzene

Toluene

Ethylbenzene

Xylenes, Total

**Analytical Report** Lab Order 2202639

Date Reported:

Received Date: 2/12/2022 8:55:00 AM

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

1

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT: EOG** Client Sample ID: BES22-41 4'

**Project:** Warren ANW Federal #6 Collection Date: 2/11/2022 7:35:00 AM Matrix: MEOH (SOIL)

Result **POL Oual Units DF** Date Analyzed **Batch Analyses EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride 220 59 mg/Kg 20 2/14/2022 4:26:51 PM 65522 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.6 mg/Kg 2/14/2022 2:45:45 PM 65516 Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 2/14/2022 2:45:45 PM 65516 Surr: DNOP 88.3 65516 51.1-141 %Rec 2/14/2022 2:45:45 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA 2/12/2022 8:16:00 PM Gasoline Range Organics (GRO) ND R85801 3 7 mg/Kg 1 Surr: BFB 95.5 %Rec 2/12/2022 8:16:00 PM R85801 70-130

ND

ND

ND

ND

88.7

0.019

0.037

0.037

0.075

70-130

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 range due to dilution or matrix interference
- Analyte detected in the associated Method Blank
- Е Estimated value
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Analyst: RAA

BS85801

BS85801

BS85801

BS85801

BS85801

2/12/2022 8:16:00 PM

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

# Analytical Report Lab Order 2202639

Date Reported:

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES22-42 4'

 Project:
 Warren ANW Federal #6
 Collection Date: 2/11/2022 7:40:00 AM

 Lab ID:
 2202639-006
 Matrix: MEOH (SOIL)
 Received Date: 2/12/2022 8:55:00 AM

Result **POL Oual Units DF** Date Analyzed **Batch Analyses EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride 310 60 mg/Kg 20 2/14/2022 4:39:15 PM 65522 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.1 mg/Kg 2/14/2022 3:10:04 PM 65516 Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 2/14/2022 3:10:04 PM 65516 Surr: DNOP 86.3 2/14/2022 3:10:04 PM 65516 51.1-141 %Rec **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA 2/12/2022 8:36:00 PM Gasoline Range Organics (GRO) ND R85801 36 mg/Kg 1 Surr: BFB 96.4 %Rec 2/12/2022 8:36:00 PM R85801 70-130 **EPA METHOD 8021B: VOLATILES** Analyst: RAA ND 0.018 mg/Kg 2/12/2022 8:36:00 PM BS85801 Benzene Toluene ND 0.036 mg/Kg 2/12/2022 8:36:00 PM BS85801

ND

ND

90.9

0.036

0.073

70-130

mg/Kg

mg/Kg

%Rec

1

2/12/2022 8:36:00 PM

2/12/2022 8:36:00 PM

2/12/2022 8:36:00 PM

BS85801

BS85801

BS85801

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
- POL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# Analytical Report Lab Order 2202639

Date Reported:

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES22-43 4'

 Project:
 Warren ANW Federal #6
 Collection Date: 2/11/2022 7:45:00 AM

 Lab ID:
 2202639-007
 Matrix: MEOH (SOIL)
 Received Date: 2/12/2022 8:55:00 AM

Result **POL Oual Units DF** Date Analyzed **Batch Analyses EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride 320 60 mg/Kg 20 2/14/2022 4:51:40 PM 65522 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.3 mg/Kg 2/14/2022 3:34:22 PM 65516 Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 2/14/2022 3:34:22 PM 65516 Surr: DNOP 85.3 65516 51.1-141 %Rec 2/14/2022 3:34:22 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA 2/12/2022 8:56:00 PM Gasoline Range Organics (GRO) ND R85801 3.5 mg/Kg 1 Surr: BFB 97.5 %Rec 2/12/2022 8:56:00 PM R85801 70-130 **EPA METHOD 8021B: VOLATILES** Analyst: RAA ND 0.018 mg/Kg 2/12/2022 8:56:00 PM BS85801 Benzene Toluene ND 0.035 mg/Kg 2/12/2022 8:56:00 PM BS85801 Ethylbenzene ND 0.035 mg/Kg 1 2/12/2022 8:56:00 PM BS85801 Xylenes, Total ND 0.070 mg/Kg 2/12/2022 8:56:00 PM BS85801 Surr: 4-Bromofluorobenzene 70-130 BS85801 90.6 %Rec 2/12/2022 8:56:00 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report
Lab Order 2202639

Date Reported:

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Client Sample ID: BES22-44 4'

**Project:** Warren ANW Federal #6 **Collection Date:** 2/11/2022 7:50:00 AM

**Lab ID:** 2202639-008 **Matrix:** MEOH (SOIL) **Received Date:** 2/12/2022 8:55:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	330	60	mg/Kg	20	2/14/2022 5:04:04 PM	65522
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	2/14/2022 3:58:44 PM	65516
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	2/14/2022 3:58:44 PM	65516
Surr: DNOP	90.2	51.1-141	%Rec	1	2/14/2022 3:58:44 PM	65516
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	2/12/2022 9:16:00 PM	R85801
Surr: BFB	97.4	70-130	%Rec	1	2/12/2022 9:16:00 PM	R85801
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.019	mg/Kg	1	2/12/2022 9:16:00 PM	BS85801
Toluene	ND	0.038	mg/Kg	1	2/12/2022 9:16:00 PM	BS85801
Ethylbenzene	ND	0.038	mg/Kg	1	2/12/2022 9:16:00 PM	BS85801
Xylenes, Total	ND	0.076	mg/Kg	1	2/12/2022 9:16:00 PM	BS85801
Surr: 4-Bromofluorobenzene	89.7	70-130	%Rec	1	2/12/2022 9:16:00 PM	BS85801

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# **ATTACHMENT 8**



#### PROPOSED ASSESSMENT AND RECLAMATION PLAN

WARREN ANW FEDERAL #6
UNIT NWSE, SECTION 9, TOWNSHIP 19S, RANGE 25E
EDDY COUNTY, NEW MEXICO
32.673600, -104.487900

PREPARED FOR:

EOG RESOURCES, INC.
ARTESIA DIVISION
105 S 4TH STREET
ARTESIA, NEW MEXICO 88210

PREPARED BY:

RANGER ENVIRONMENTAL SERVICES, INC. P.O. BOX 201179 AUSTIN, TEXAS 78720

**AUGUST 27, 2021** 

Chad M. Copeland, P.G. (TX)

CMCXCC

**Project Geoscientist** 

William Kierdorf, REM Project Manager

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Well Pad Area	3
Electrical Conduit Area	3
PROPOSED RECLAMATION PLAN	3
Debris Removal	3
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Well Pad and Access Road Contouring	4
Former Well Pad	4
Access Road	4
Site Security	4
SITE MONITORTING AND CLOSURE	4
	JUNE 24, 2021 – SITE INSPECTION  PROPOSED ASSESSMENT PLAN  Well Pad Area  Electrical Conduit Area.  REMEDIATION  Well Pad Area  Electrical Conduit Area  PROPOSED RECLAMATION PLAN  Debris Removal  Former Pit Location  Well Pad and Access Road Contouring  Former Well Pad  Access Road  Site Security

#### **BUREAU OF LAND MANAGEMENT NOTICE OF WRITTEN ORDER**

#### **FIGURES**

- Topographic Map
- Area Map
- Site Map
- Proposed Assessment Area Map
- Well Pad Area Reclamation Map

#### **ATTACHMENTS**

- Attachment 1 Site Photographs
- Attachment 2 James H & Betty R Howell Revocable Trust Seed Mix



PROPOSED ASSESSMENT AND RECLAMATION PLAN **WARREN ANW FEDERAL #6 UNIT NWSE, SECTION 9, TOWNSHIP 19S, RANGE 25E EDDY COUNTY, NEW MEXICO** 32.673600, -104.487900

#### 1.0 SITE LOCATION AND BACKGROUND

The Warren ANW Federal #6 (Site) is located on private land, approximately 12.75 miles southwest of Artesia, within Eddy County, New Mexico. The facility is situated in Unit NWSE, Section 9, T19S-R25E at GPS coordinates 32.673600, -104.487900. The well was operated by EOG Resources, Inc. (EOG) prior to the plugging and abandonment of the well.

On June 10, 2021, a Bureau of Land Management (BLM) Notice of Written Order was received by EOG regarding the subject Site. The notice outlined a historic reserve pit located to the north of the former well pad that was noted to have exposed plastic liner material and potential surface contamination. Also, the order noted that areas of the former well pad had been impacted by contaminants within the historic reserve pit.

EOG Resources, Inc. (EOG) has engaged Ranger Environmental Services, Inc. (Ranger) to assist in addressing the outstanding reclamation efforts at the Site. On June 24, 2021, Ranger and EOG personnel conducted an initial site inspection to document current conditions of the location and determine the appropriate course of action for the Site.

The following Proposed Assessment and Reclamation Plan has been prepared to return the area to pre-operation conditions.

A copy of the BLM Notice of Written Order is attached. A Topographic Map and Area Map noting the location of the subject property and surrounding areas as well as a Site Map illustrating the Site features, are provided in the Figures section.

#### 2.0 JUNE 24, 2021 - SITE INSPECTION

On June 24, 2021, Ranger and EOG personnel conducted a site inspection to assess site conditions and determine appropriate actions necessary to address the notified BLM issues.

Upon inspection of the former pit location, the area was noted to have visible plastic liner material and potential surface contamination. Impacts along the reserve pit/well pad interface boundary were noted to have signs of potential impacts from the material within the historic reserve pit.

The remaining portions of the former well pad area and access road was noted to be in place and in need of reclamation efforts.

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WWW.RANGERENV.COM

During the inspection, material associated with operations at the site and other various debris were observed. Additionally, potential impacts adjacent to the remaining electrical conduit were observed.

#### 3.0 PROPOSED ASSESSMENT PLAN

#### 3.1 Well Pad Area

In order to assess the BLM reported areas of potential impact on the well pad, delineation sampling activities are proposed. To assess the presence and extent of impacts in the area, excavation test holes will be completed in various locations for the purpose of soil sample collection.

The initial sample locations will be located immediately south of the reserve pit/well pad interface boundary. During the test hole installation process, soils will be analyzed by Ranger personnel at the surface and at approximate one foot intervals using an organic vapor monitor (OVM) and a field chloride titration kit to assist in evaluating soil conditions and/or levels of impacts in the area. The test holes will be completed to a depth where field reading indicate that soil concentrations are within the applicable NMAC Table 1 closure criteria or to the maximum extent of the available on-site equipment. Dependent on the levels of impacts observed in the initial test hole locations, if necessary, additional locations will be selected to the south, east and west of the initial locations in order to horizontally delineate the potential impacts in the area. The locations and depth of investigation of the additional test holes will be determined based on the conditions observed within the initial assessment locations. Additional assessment test hole to the north of the initial location will be limited as to not disturb and compromise the stability of the subject historic reserve pit area.

Soil samples for laboratory analysis will be collected from each test hole location. Upon collection, the soil samples will be submitted to a NELAC accredited laboratory for analysis of total petroleum hydrocarbons (TPH) using EPA Method 8015; benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA Method 8021; and, total chloride using EPA Method 300.

#### 3.2 Electrical Conduit Area

As previously stated, during the June 24, 2021 site inspection, an area adjacent to remaining electrical conduit with potential soil impacts was observed. The area was noted to have a discolored appearance and a hydrocarbon odor. During the removal of the electrical conduit, the area will be assessed for extent of impacts. Based on the observed area, the impacts in the area are anticipated to be of deminimus volumes and assessment is anticipated to be completed in conjunction of the conduit removal process. If field conditions warrant additional assessment be completed, excavation test holes will be completed as necessary to properly delineate the horizontal and vertical impacts in the area.



#### 4.0 REMEDIATION

#### 4.1 Well Pad Area

Based on the findings of the assessment process in the area of the well pads, a site investigation and proposed remediation plan will be prepared. The plan will include details of the conducted assessment process, the proposed remediation strategy, and confirmation sampling details. The plan will be prepared in order to bring the area into compliance with the standards outlined in NMAC 19.15.29.

#### 4.2 Electrical Conduit Area

As previously stated the impacts observed in the area of the in place electrical conduit are anticipated to be of deminimus volumes. It is proposed that the impacts will be addressed during the removal of the conduit from the area. Any impacted material generated during the process will be transported to an NMOCD approved facility for disposal.

Upon completion of the removal process, soil samples for laboratory analysis will be collected. The samples will be collected in accordance with NMAC 19.15.29.12 as five part composite samples with each sample representative of no more than 200 square feet. The soil samples will be submitted to a NELAC accredited laboratory for analysis of TPH, BTEX, total chloride using the aforementioned laboratory methods.

In the event that impacts in the area are greater than anticipated, additional assessment/delineation sampling will be conducted in order to prepare a formal remedial plan. If necessary, a subsequent remedial plan will be included in conjunction with the well pad area remedial plan.

#### 5.0 PROPOSED RECLAMATION PLAN

Upon completion of the remedial process at the Site, the former well pad location will undergo reclamation to bring the site to BLM and NMOCD standards. To complete this process the following items are proposed.

#### 5.1 <u>Debris Removal</u>

Any and all remaining equipment, trash, or debris associated with operation or remedial efforts at the site will be removed. The observed remaining electrical conduit will be removed during the assessment/remedial operations at the Site.

If any additional material is discovered during the subsequent reclamation efforts, it will also be removed.

#### 5.2 Former Pit Location

During the June 24, 2021 site inspection, surface contamination exposed plastic pit liner material was observed in the area of the historic reserve pit location. To limit potential leaching, it is proposed to cap the area with a Bentomat Geosynthetic Clay Liner (GCL). Prior to placement, the former pit location will be prepared by removing any items that could potentially damage the liner. The GCL will be placed parallel to the areas natural contours and anchored as necessary to ensure stability of the liner. The area will be capped with two feet of top-soil for revegetation



purposes and contoured to match the natural contours of the area. Upon completion of the liner and topsoil installation process, the area will be re-seeded in accordance with the Howell Ranch directed seed mixture and application rate.

#### 5.3 <u>Well Pad and Access Road Contouring</u>

In order to bring the area topography back to pre-operation conditions, contouring of the area will be necessary. The natural contours of the area are noted to be trending in a southeastern direction. During the initial June 24, 2021 site visit, a soil cut/depression located along the western/northwestern pad area was observed. The southern/southeastern pad boundaries were also noted to be raised or benched in order to create a level pad surface. Additionally, a raised area along the access road immediately west of the former well pad was noted.

Following the removal of all surface equipment and initial soils investigation, the caliche or nonnative well pad will be removed from the location. Upon completion, contouring activities including the removal of the raised/benched areas along the southern/southeastern portion of the well pad and restoring back to the natural grade of the area. The native material generated during this process will be placed within the soil cut to the northwest of the former well pad to bring the area back to grade. The raised portion of the access road will also be removed and the material will be utilized to bring the soil cut area back to a natural topography.

During the contouring process it is anticipated that ample volumes of top-soil will be exposed for reseeding purposes. However, if additional material is deemed necessary, topsoil material similar in characteristics will be added in the necessary areas.

#### 5.4 Former Well Pad

To address the lack of vegetation on the former well pad area, additional ripping and seeding activities will be completed. Upon completion of the re-contouring activities, ripping will be conducted in a northeastern to southwestern direction to assist in limiting potential runoff from the area. The site will be re-seeded in accordance with the Howell Ranch directed seed mixture and application rate.

#### 5.5 Access Road

The former well access road will require deep ripping and reseeding activities. Upon completion of the re-contouring activities, the ripping will be conducted in an east to west direction as to not disturb areas adjacent to the access road.

#### 5.6 Site Security

To secure the reclaimed areas from adverse vehicular and/or livestock activity, the entirety of the reclamation areas (road, former pad, and pit area) will be surrounded by fencing until reaching the target vegetative cover of approximately 80%. Based on preliminary review of the site location, erosion control berms do not appear necessary at the location. However, if efforts appear warranted as the reclamation process continues they will be installed as necessary.

#### 6.0 SITE MONITORTING AND CLOSURE



To monitor the progress of the reclamation efforts, site inspections will be conducted at six month intervals. During the site inspections, the reclaimed areas will be evaluated for vegetation growth, site security measures, and erosional controls. If any issues are observed, additional actions will be implemented to address the issues.

During the inspection process, if a vegetation cover of approximate 80% is believed to be achieved, Ranger will utilize Daubenmire Survey techniques to confirm that the area is in attainment of the target vegetative cover of 80%.

Upon successfully achieving the target re-vegetation level of approximately 80%, a Final Abandonment Notice (FAN) will be submitted. After receiving BLM FAN notice approval, the site security fencing and any other control measures will be removed.



# BUREAU OF LAND MANAGEMENT NOTICE OF WRITTEN ORDER

Form 3160-18 (November 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

#### **NOTICE OF WRITTEN ORDER**

Number	21MBH0023W
Page 1	of 3

Certified Mail-Retu	ırn Receipt I	Requested						Identification	
Hand Delivered, Re	paginad D-	nd Data				Lease		NMNM1372	
Hand Denvered, Re	cerved by a	nd Date				Agreei	nent		
Bureau of Land Mana	gement Of	fice			Operator or Third Party	'		'	
Carlsbad Field Office					EOG RESOURCES IN	NCORPORA	TED		
Address 620 E. Gree	ne St.				Address				
Carlsbad. N									
Telephone Inspector 5752345951 MELISSA HORN			Attention						
5752345951				1					
Site Name WARREN ANW FED	Site Name Well/Facility/FMP/Identification WARREN ANW FED 6			Legal Land Description (Include Lat./Long.)  NWSE, 9-19S-25E					
Site Name		_	v/FMP/I	dentification#	Legal Land Description	(Include Lat /	Long	<del>y</del> )	
WARREN ANW FED	)	6	y/1 1 <b>v11</b> /1		NWSE, 9-19S-25E	(merade Lat./	Long	5•)	
Site Name		Well/Facility	Well/Facility/FMP/Identification#		Legal Land Description	iption (Include Lat./Long.)		g.)	
THE FOLLOWING IS	SSUE(S) WEI	 RE FOUND BY	BUREAU	U OF LAND MANA	GEMENT INSPECTORS O	ON THE DATE A	ND A	T THE SITE(S) LISTED.	
Date	Time (24-	hour Clock)		tive Action to be impleted By	Date Corrected	Authority Reference			
06/10/2021	15	5:00	30	3/01/2021		43 CFR 3162.5-1 (a)			
Remarks:									
					s of the reclamation at to be addressed in orde			ation. Inspection eclamation objectives:	
as exposed plastic li	iner is pre ıst be sub	sent in this l mitted to BL	location ₋M to er	i. Prior to comm nsure reclamati	claimed. Surface conta nencing ground-disturb on activities are in con	ing work in t	his		
order to properly mit	tigate and, CFR 3162	or lessen th 2.5-1 (c), all	ne proba contam	ability of impact ninated soils ne	ntaminants within the its surface contamination ed to be excavated an the clean material.	n, and in			
enforcement action.	Return si me with a	gned I&E C	opy to t	he office via ma	ment date in order to a ail or email once comp juests, or if you are un	leted.			
When the Written Orde	er is compli	ied with, sign	this not	tice and return to	above address.				
Company Representative Signature:				Print Name: Date:			Date:		
Company Comments:									

(Continued on Page 2) (Form 3160-18)

In accordance with 43 CFR 3163.1(a), you must comply with the corrective actions for the identified issue(s) by the abatement date provided above. If you fail to comply within the time frames specified, you will be issued an Incident of Noncompliance (INC) in accordance with 43 CFR 3163.1(a), which may include an assessment or additional enforcement actions as deemed necessary to gain compliance.

#### WARNING

The Authorized Officer has authority to issue a Written Order in accordance with 43 CFR 3161.2. Per 43 CFR 3165.3, Written Order and reporting time frames begin upon receipt of the Notice, or seven business days after the date it is mailed, whichever is earlier. Each issue must be corrected by the "Action to be Completed By" date identified above. This form must be signed, dated, and postmarked no later than the next business day after the prescribed timeframe for correction and returned to the Bureau of Land Management office at the address shown above.

Section 109(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at 43 CFR 3163.2(f)(1), provides that any person who "knowingly or willfully" prepares, maintains, or submits false, inaccurate, or misleading reports, notices, affidavits, records, data, or other written information required by this part shall be liable for a civil penalty per violation for each day such violation continues.

#### **REVIEW AND APPEAL RIGHTS**

A person contesting an Order of the Authorized Officer or violation must request a State Director Review of the Written Order or Incident of Noncompliance. This request must be filed within 20 business days of receipt of the Written Order with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, MS 300-QC, Arlington, Virginia 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Signature of Bureau of Land Management Authorized Officer	Date	Time (24-hour Clock)

#### Remarks:

Field inspection was conducted on 5/20/2021 to monitor progress of the reclamation at the specified location. Inspection found the following environmental concerns which are required to be addressed in order to meet BLM reclamation objectives:

- A reserve pit exists to North of the location is required to be reclaimed. Surface contamination as well as exposed plastic liner is present in this location. Prior to commencing ground-disturbing work in this area a work plan must be submitted to BLM to ensure reclamation activities are in compliance with federal agencies and as well as private landowner.
- Locations on the reclaimed pad have been impacted by the contaminants within the reserve pit. In order to properly mitigate and/or lessen the probability of impact surface contamination, and in accordance with 43 CFR 3162.5-1 (c), all contaminated soils need to be excavated and hauled to an authorized land disposal facility and excavated soils replaced with clean material.

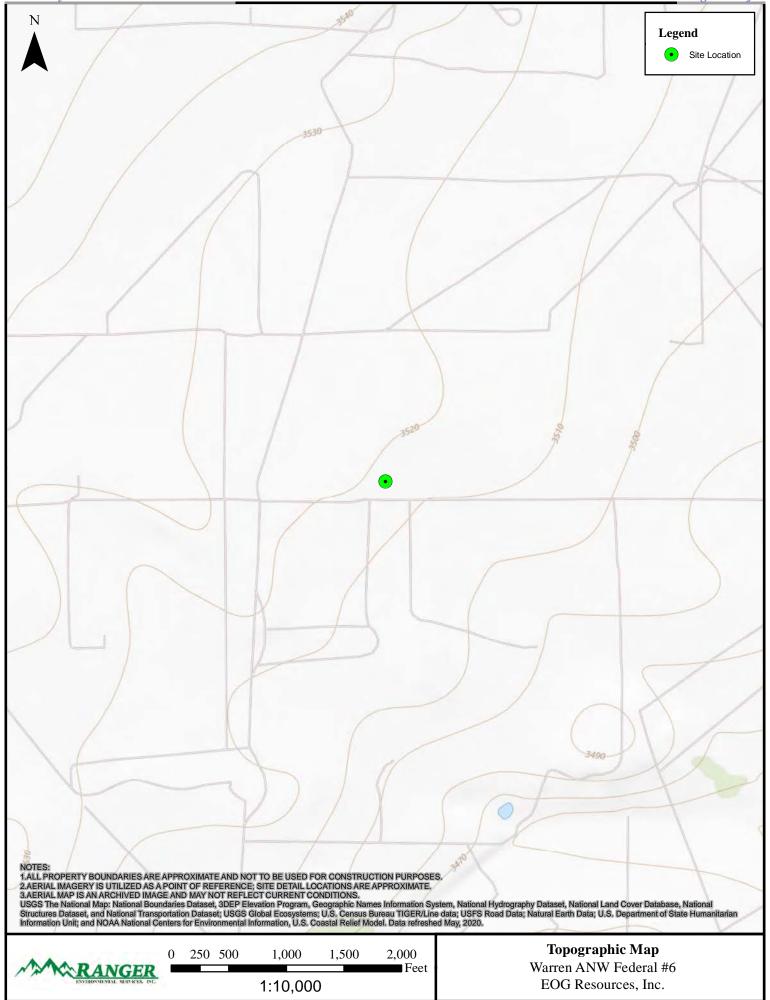
The above issues must be remedied prior to the specified abatement date in order to avoid further enforcement action. Return signed I&E Copy to the office via mail or email once completed. Feel free to contact me with any questions, concerns, onsite requests, or if you are unable to address these issues at this time.

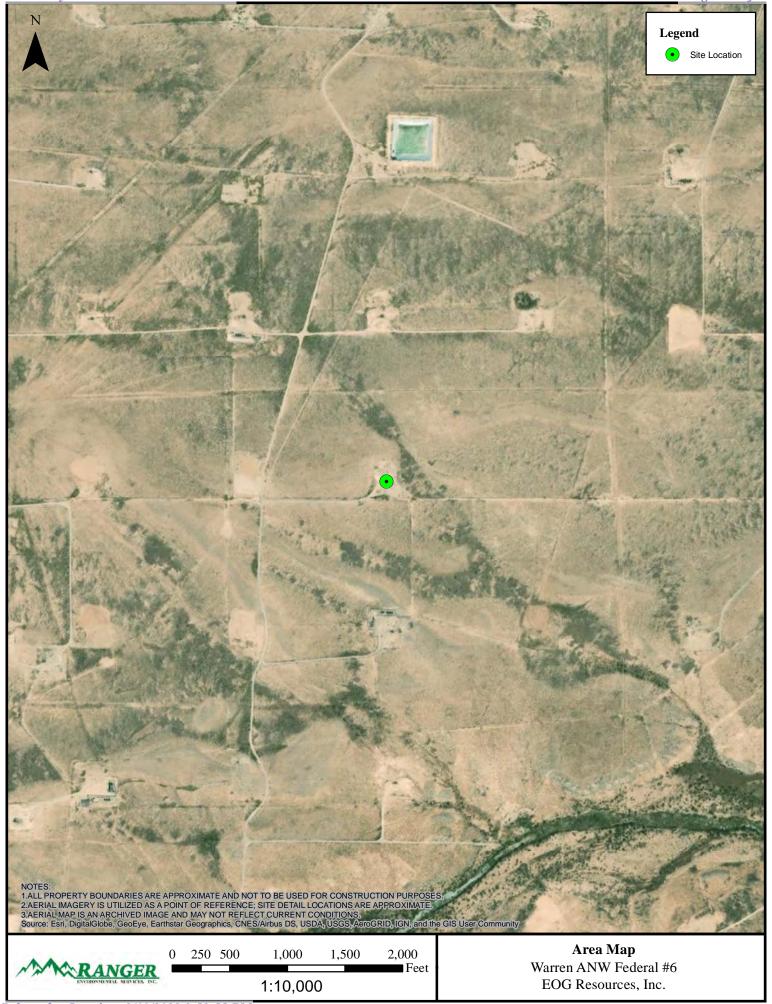
Attn: Melissa Horn, Environmental Protection Specialist

620 E Greene Street Carlsbad, NM 88220 Phone: (575) 988-5122 Email: mhorn@blm.gov

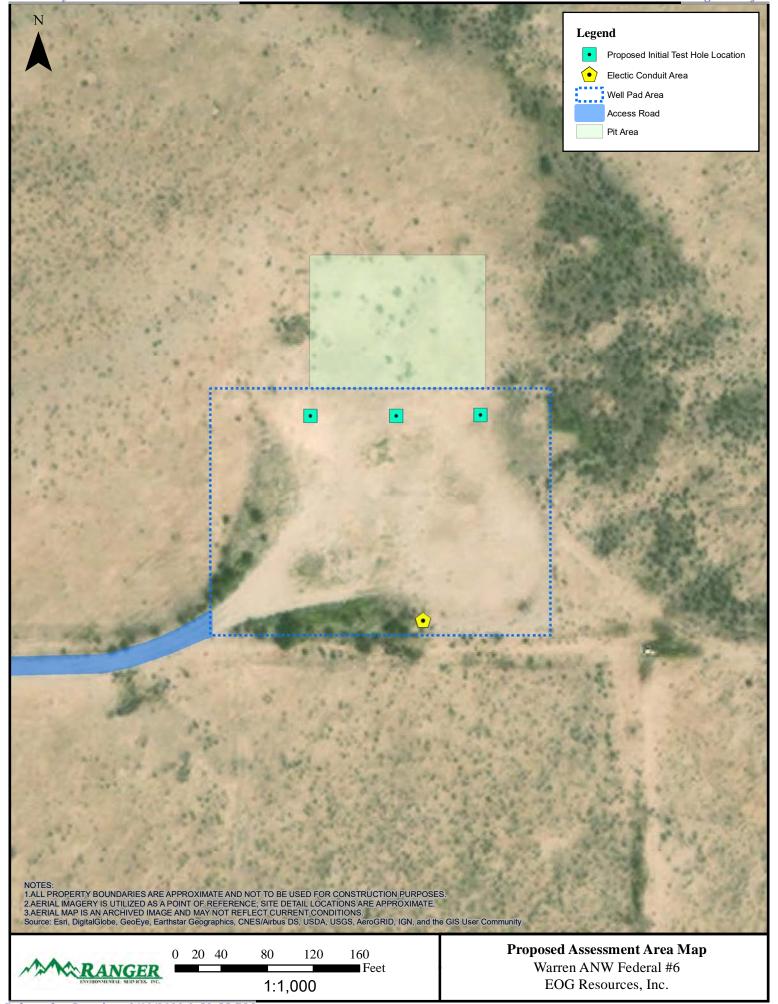
## **FIGURES**

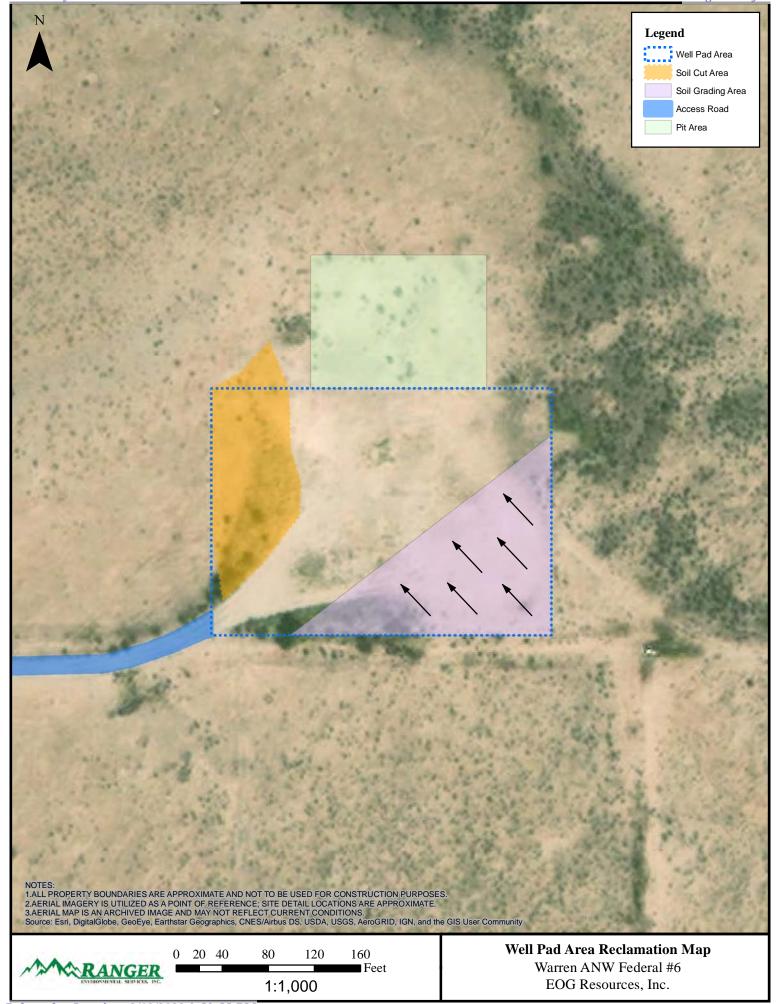
TOPOGRAPHIC MAP
AREA MAP
SITE MAP
PROPOSED ASSESSMENT AREA MAP
WELL PAD AREA RECLAMATION MAP













PHOTOGRAPH NO. 1 – A view of the former pit area during the June 24, 2021 site visit. The view is towards the northeast.



PHOTOGRAPH NO. 2 – A view of the former pit location (right) and soil cut/depression area (left) during the June 24, 2021. The view is from the well pad to the northwest.



PHOTOGRAPH NO. 3 – A view of the potential impacts in the vicinity of the remaining electrical conduit.



PHOTOGRAPH NO. 4 – A view of the southern pad boundary noted to be raised above the natural grade of the surrounding area. The view is towards the east.

# ATTACHMENT 2 - James H & Betty R Howell Revocable Trust Seed Mix

# James H & Betty R Howell Revocable Trust Seed Mix

1lb per acre of Plains Bristlegrass

**2lbs per acre of Green Sprangletop** 

3lbs per acre of Side Oats Gramma

2lbs per acre of Blue Gramma

Increase to 16lbs per acre if broadcast.

**Add Reclamation Mix** 

40% Ryegrass (Annual)

10% Millet

7.5% Kleingrass

5.7% Sideoats

5% Green Sprangletop

7.5% Bristlegrass

10% Western Wheatgrass

10% Buffalograss

2.5% Blue Grama

**PLANTING RATE 20 lbs. per acre** 

**Updated 5/23/2021** 

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 82730

#### CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	82730
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
jnobui	None	3/10/2022