## SITE INFORMATION

### Papart Type: Clasura Papart (1PD 4290)

	Re	eport Type:	Closure Re	port (1	KP-4280)					
General Site Info	rmation:									
Site:	Lusk-Belco Water Line									
Company:		EOG Resource	es							
Section, Townshi	ip and Range	Unit P	Sec. 36	T 19S	R 32E					
County:		Lea County, N	ea County, NM							
GPS:			32.61124			-103.1	71108			
Surface Owner:		State of New N	lexico							
Release Data:										
Date Released:		4/28/2016								
Type Release:		Produced Water								
Source of Contam	ination:	Failure of a 3" poly line								
Fluid Released:		Unknown								
Fluids Recovered:		0								
Official Communi	ication:									
Name:	James Kennedy				Clair Gonzal	es				
Company:	EOG Resources				Tetra Tech					
Address:	5509 Champions D	r			901 West Wall Street					
					Suite 100					
City:	Midland, TX 79706				Midland, Texas 79701					
Phone number:	432-686-7016				432-687-8634					
Fax:										
Email:	James.Kennedy@	eogresources.c	om		<u>clair.gonza</u>	les@tetrate	ch.com			

Site Characterization	
Depth to Groundwater:	50' below ground surface (bgs)
Karst Potential:	Low

Recommended Remedial Action Levels (RRALs)								
Benzene	Total BTEX	TPH (GRO+DRO+MRO)	Chlorides					
10 mg/kg	50 mg/kg	100 mg/kg	600 mg/kg					



March 22, 2021

Bradford Billings Hydrologist District 2 Artesia Oil Conservation Division Santa Fe, NM 87505

### Re: Closure Report EOG Resources Lusk-Belco Water Line Unit P, Section 36, Township 19 South, Range 32 East Lea County, New Mexico 1RP-4280

Mr. Billings:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess a release at the EOG Lusk-Belco Water Line (API No. 30-025-31042). The release footprint is located in the Public Land Survey System (PLSS) Unit P, Section 36, Township 19 South, Range 32 East, Lea County, New Mexico (Site). The Site coordinates are 32.61124<sup>o</sup>, -103.71108<sup>o</sup>. The site location is shown on Figures 1 and 2.

### Background

According to the State of New Mexico C-141 Initial Report, the release occurred on April 28, 2016 due to a failure of a 3-inches poly produced water line. The volume of the release was unknown. The area affected consisted of approximately 20 feet (ft.) by 5 ft. within the pipeline right of way. During immediate response actions, valves were closed on both ends of the line and a backhoe crew was called to repair the line and excavated the impacted soils. No free fluids were recovered. The initial C-141 report was submitted on May 12, 2016 and approved by the NMOCD on May 16, 2016. The release was subsequently assigned the Remediation Permit (RP) number 1RP-4280. The C-141 forms are included in Appendix A.

### Site Characterization

A site characterization was performed for the site, and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances, and the site is in a low karst potential area. The nearest well is listed in the USGS National Water Information Database website in Section 18, approximately 3.22 miles North of the site, and has a reported depth to groundwater of 191.33 feet below ground surface. In addition, according to the New Mexico Office of the State Engineer, there are no water wells within 800 meters (½ miles) radius. Therefore, we will be using the most stringent RRALs criteria. Site characterization data is included in Appendix B.

Tetra Tech

901 West Wall Street, Suite 100, Midland, TX 79701 Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com



### Regulatory

A risk-based evaluation was performed for the site per the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based on the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO+DRO+MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

### **Soil Assessment and Analytical Results**

On December 7, 2016, EOG submitted a work plan to the NMOCD, which was approved on April 6, 2017. Based on the work plan, it is mentioned that initial delineation samples were taken on May 5, 2016, and additional sampling activities were performed on June 8, 2016. In order to sample delineate chloride concentrations further, a core rig was used to obtain samples on November 16, 2016. Within the work plan is included a figure with the sample locations. In the scope of work, it is mentioned that EOG will excavated four (4) feet (ft.) of impacted soil from the release area, disposed all excavated soil to NMOCD approved facility for disposal. After the remediation work, EOG will installed a 20-ml synthetic liner to prohibit percolation of moisture deeper into the subsurface, restricting further chloride migration deeper toward groundwater or rising back to the surface. EOG will also backfilled the excavated area with 2 ft. of caliche, followed by 2 ft. of topsoil to allow vegetative repopulation of the release site. EOG work plan is included in Appendix C along with figure and laboratory results.

On March 1, 2021, Tetra Tech personnel were on site to evaluate and collect samples at the release footprint to endure that the work plan submitted by EOG had been executed. The formerly impacted area was identified from the description in the C-141, the aerial imagery and the figure included in the EOG work plan. Soils were field screened for salinity using an Extech EC400 ExStik to determine sampling intervals. A total of one (1) auger hole (AH-1) was advanced to a total depth from surface to 4 ft. bgs. A total of four (4) samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3. Photographic documentation is included.

Referring to Table 1, none of the samples analyzed exceeded the Site RRAL for chloride (600 mg/kg), TPH (100 mg/kg), BTEX (50 m/kg) and benzene (10 mg/kg).



### Conclusion

Based on the laboratory results and remediation activities performed, EOG requests closure of this spill issue. The final C-141 initial reports are enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

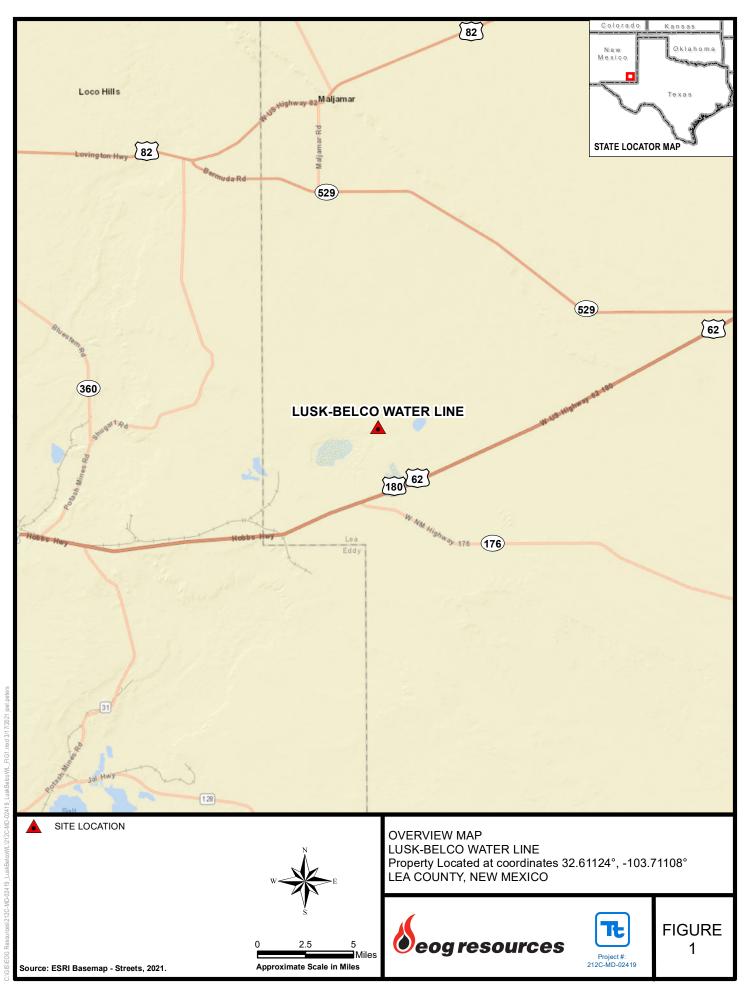
Respectfully submitted, TETRA TECH

Paula Tocora Alonso

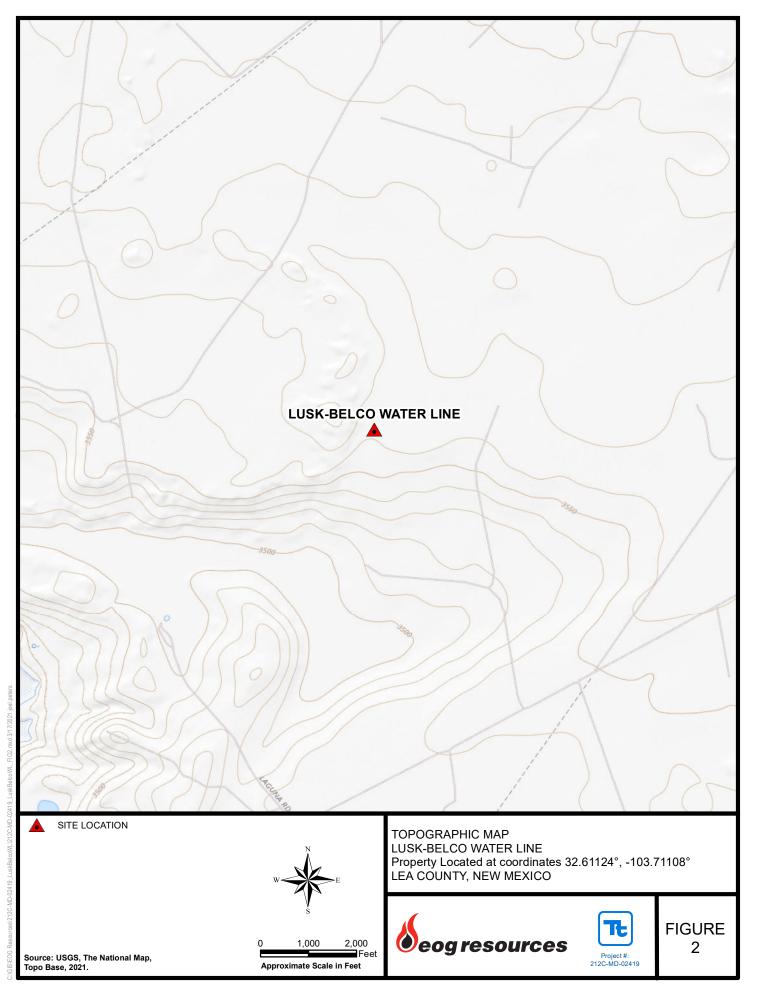
Paula Tocora Alonso Environmental Engineer I Tetra Tech, Inc

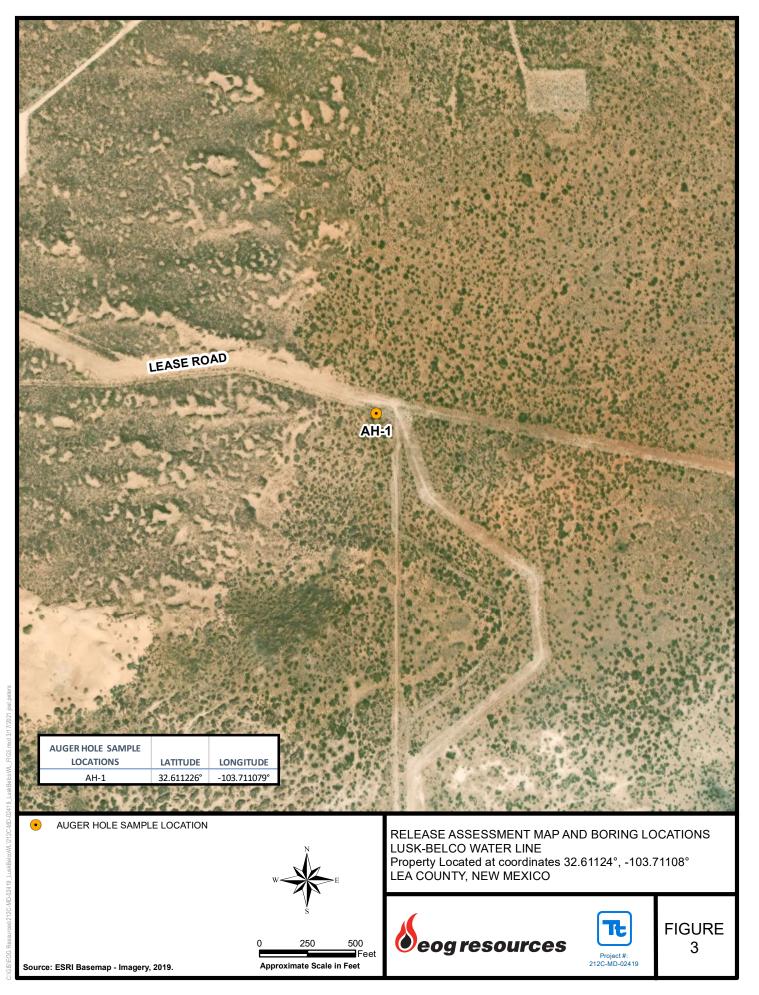
# Figures

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# Tables

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### Table 1 EOG Lusk- Belko Water Line Lea County, NM

	Sample Date	<u> </u>	0 annual a	<u> </u>	Commis	Soil	Status		TPI	H (mg/kg)							
Sample ID		Sample Depth (ft)	In-Situ	Removed (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chlorides			
AH-1	3/1/2021	0'-1'	Х	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	7.51			
	3/1/2021	1.5'-2'	Х	-	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	6.98			
	3/1/2021	2.5'-3'	Х	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	6.89			
	3/1/2021	3.5'-4'	Х	-	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	6.48			

(-) 

Not Analyzed Exceeded RRALs

# Photos

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**TETRA TECH** 

## EOG Resources Lusk-Belco Water Line Lea County, New Mexico





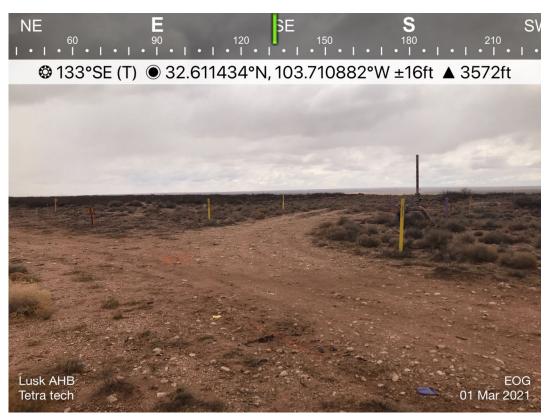
## View of Release Area – View South

**TETRA TECH** 

## EOG Resources Lusk-Belco Water Line Lea County, New Mexico



View of Release Area - View Southeast



View of Release Area - View East

# Appendix A

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Re	ease Notific		operal		ction		l Report	Einal Danart
Name of Company Yates Petroleum Corporation Address		(	Contact Chase Settle Felephone N				пкероп	Final Report
104 S. 4 <sup>th</sup> Street, Artesia, NM 88210 Facility Name Lusk-Belco Water Line			575-748-41 Facility Typ Pipeline	71				
Surface Owner State	Mineral O State		<b>.</b>			API No 30-025-		
			OF REI					
Unit LetterSectionTownshipRangeP3619S32E	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County Lea	
	Latitude 32	2.61124	Longitude	-103.71108				
	NAT	URE	OF REL	and the second se				×
Type of Release Crude Oil and Produced Water			Volume of Unknown	Release		Volume F 0	lecovered	
Source of Release Produced Water Line			Date and H 4/28/2016;	our of Occurrenc	e	Date and 4/28/2016	Hour of Dis	covery
Was Immediate Notice Given?	🗋 No 🔲 Not Re	quired	If YES, To Whom? ed Jamie Keyes, Ian Dolly, Amber Groves, Mathew Hagman, Mark Najanjo, Dana Strang					
By Whom? Robert Asher			Date and F 4/29/2016;					
Was a Watercourse Reached?	No No		If YES, Volume Impacting the Watercourse. N/A					
If a Watercourse was Impacted, Describe Fully Describe Cause of Problem and Remedial Act								
Release was caused by a failure of a 3" poly pp Describe Area Affected and Cleanup Action T closed on both ends of the line, and a backhoe and horizontal delineation samples will be take BTEX are under RRAL's (site ranking is 0) a RRAL's a work plan will be submitted to the 0 Wellhead Protection Area: No, Distance to 1 I hereby certify that the information given abo regulations all operators are required to report public health or the environment. The accepta should their operations have failed to adequate or the environment. In addition, NMOCD acc federal, state, or local laws and/or regulations.	aken.* An approxi crew was called to en and analysis ran Final Report, C-141 DCD. Depth to C Surface Water Boo ve is true and comp and/or file certain r nce of a C-141 repor- ely investigate and r eptance of a C-141	imate arr repair the for TPH will be Ground ly: >100 lete to the elease nort by the emediate	ea of 20' X 5 ne line. Excav & BTEX (cl submitted to Water: >10 00', SITE RA ne best of my otifications a e NMOCD m e contaminat	was affected wir ated soils will be lorides for docun the OCD request (approximatel NKING IS 0. knowledge and u nd perform correct arked as "Final R on that pose a thr	thin the hauled ing clos y 185', inderstan ctive act eport" c reat to g	pipeline Ri to an NMO n). If initia ure. If the <b>Section 36</b> nd that purs ions for rel loes not rel round wate	ght of Way. CD approve I analytical analytical re- <b>T19S-R32</b> suant to NM eases which ieve the ope r, surface wa	Valves were ed facility. Vertical results for TPH & esults are above the E, per Trend Map), OCD rules and may endanger rator of liability ater, human health
Signature:			OIL CON	SERV		DIVISIO Xlhyw	<u>NC</u>	
Printed Name: Chase Settle			Approved by	Environmental S		t: ·/um	, unge	
Title: NM Environmental Regulatory Agent			Approval Da	te: 05/16/2016	5	Expiration	Date: 07/16	5/2016
E-mail Address: csettle@yatespetroleum.com Date: 5/12/2016 Phone * Attach Additional Sheets If Necessary	ne: 575-748-4171	Ι	Conditions o Discrete site s per NMCOD	amples only. Deli	neate ar	nd remediat	e Attached 1RP 42	C. C

Application ID

## 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?	(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 vertical 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.
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.

Received by OCD: 10/14/2021 3:37:11 PM Form C-141PM State of New MexicoPage 4Oil Conservation Division	Page 17 of 85         Incident ID         District RP         Facility ID         Application ID
	e best of my knowledge and understand that pursuant to OCD rules and tifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In f responsibility for compliance with any other federal, state, or local laws Title:
email:	Telephone:

Page 6

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

# Closure

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

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following in	tems must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
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 should their operations have failed to adequately investigate and rem human health or the environment. In addition, OCD acceptance of a compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the con accordance with 19.15.29.13 NMAC including notification to the O	nediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for tions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete.
Printed Name:	
Signature: James F. Kennedy	Date:
Signature: <i>Qames F. Kennedy</i> email:	Telephone:
OCD Only	
Received by:	Date:
	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:
Printed Name:	Title:

# Appendix B

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# 1RP-4280

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WNE SENE (G) (H) 9S 32E	SWNW (E)	SENW	SWNE (G)	SENE (H)	L 2 195	SENW (F)	SWNE (G)	SENE (H)	SWNV (E)
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WSE NESE	NWSW (L)	NESW (K)	NWSE (J)	NESE (1)	L 3	NESW (K)	NWSE (J)	NESE (1)	NWSV (L)
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L3 L4	L1	L2	L3	L 4	L 4	SESW (N)	SWSE (O)	SESE (P)	SWSV (M)
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2 L1	14	L 3	L2	L1	L4	L 3	L 2	LI	L 4
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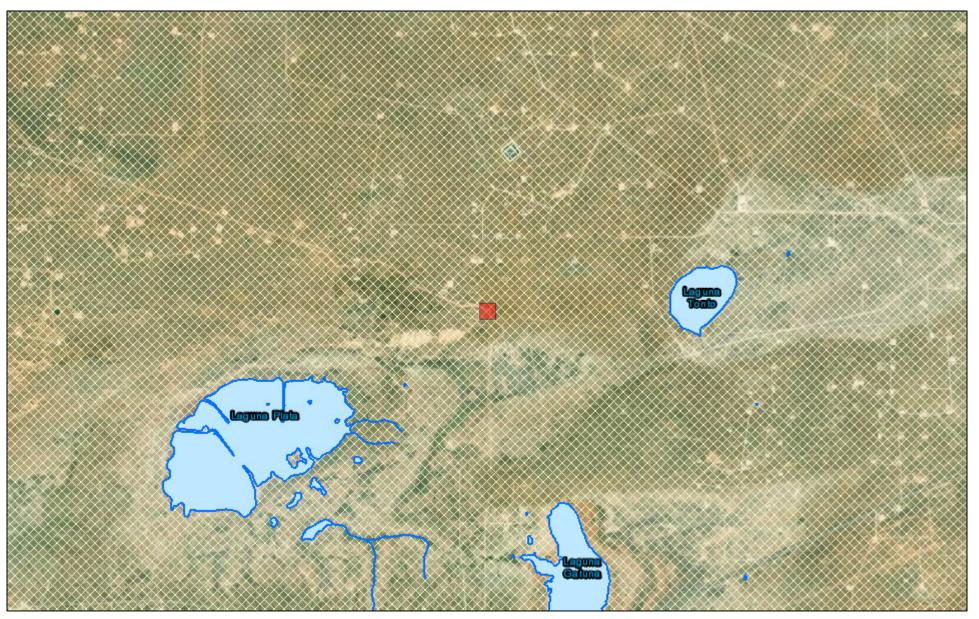


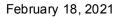
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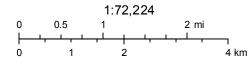
Google Earth

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# New Mexico NFHL Data







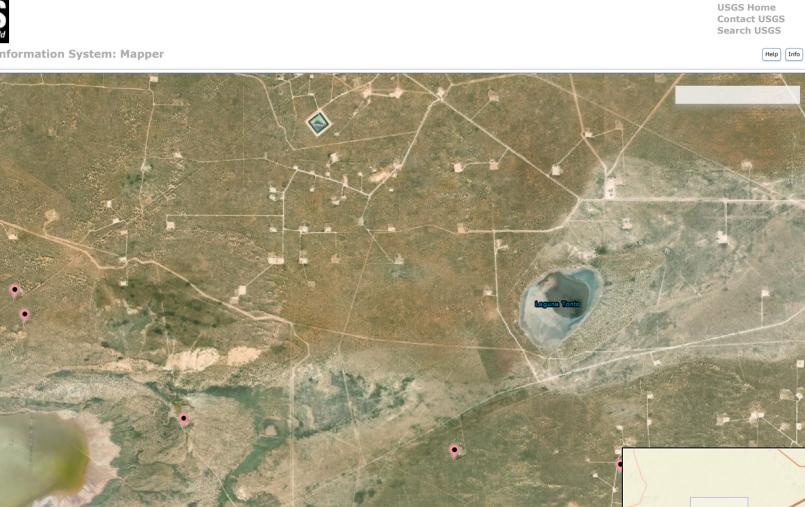
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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### Water Resources of the United States—National Water Information System (NWIS) Mapper



National Water Information System: Mapper



USDA FSA, G

Site Information

✔ GO

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Groundwater

New Mexico

Science for a changing world

National Water Information System: Web Interface USGS Water Resources

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Introducing The Next Generation of USGS Water Data for the Nation
 Full News

Groundwater levels for New Mexico

Click to hide state-specific text

\* IMPORTANT: Next Generation Station Page

#### Search Results -- 1 sites found

Agency code = usgs site\_no list =

Minimum number of levels = 1 Save file of selected sites to local disk for future upload

#### USGS 323929103423101 19S.33E.18.133223

Lea County, New Mexico Latitude 32°39'29", Longitude 103°42'31" NAD27 Land-surface elevation 3,636 feet above NAVD88 The depth of the well is 870 feet below land surface. This well is completed in the Other aquifers (N99990THER) national aquifer. This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

• 323929103423101

**Output formats** 

Table of data

Tab-separated data

Graph of data Reselect period

date-time accuracydate-time codeParameter level accuracyParameter level accuracypecific acturacydatumStatusMethod or measurementMeasuring agencySource or measurementParameter agency <th></th>											
Pate     ?											
1968-03-15       D       62611       3404.96       NAVD88       1       Z       A         1968-03-15       D       72019       231.04       1       Z       A         1971-01-28       D       62610       3422.57       NGVD29       1       Z       A         1971-01-28       D       62611       3424.14       NAVD88       1       Z       A         1971-01-28       D       62611       3424.14       NAVD88       1       Z       A         1971-01-28       D       62610       3424.14       NAVD88       1       Z       A         1971-01-28       D       62610       3443.10       NGVD29       1       Z       A         1976-12-15       D       62611       3444.67       NAVD88       1       Z       A         1976-12-15       D       62611       3444.67       NAVD88       1       Z       A	Date	Time	date-time		level, feet below land	level, feet above specific vertical	vertical				level approval
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1968-03-15       D       72019       231.04       1       Z       A         1971-01-28       D       62610       3422.57       NGVD29       1       Z       A         1971-01-28       D       62611       3424.14       NAVD88       1       Z       A         1971-01-28       D       62611       3424.14       NAVD88       1       Z       A         1971-01-28       D       72019       211.86       1       Z       A         1976-12-15       D       62610       3443.10       NGVD29       1       Z       A         1976-12-15       D       62611       3444.67       NAVD88       1       Z       A	1968-03-15		D	62610		3403.39	NGVD29	1	Z		А
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1971-01-28         D         62611         3424.14         NAVD88         1         Z         A           1971-01-28         D         72019         211.86         1         Z         A           1976-12-15         D         62610         3443.10         NGVD29         1         Z         A           1976-12-15         D         62611         3444.67         NAVD88         1         Z         A	1968-03-15		D	72019	231.04			1	Z		А
1971-01-28     D     72019     211.86     1     Z     A       1976-12-15     D     62610     3443.10     NGVD29     1     Z     A       1976-12-15     D     62611     3444.67     NAVD88     1     Z     A	1971-01-28		D	62610		3422.57	NGVD29	1	Z		А
1976-12-15         D         62610         3443.10         NGVD29         1         Z         A           1976-12-15         D         62611         3444.67         NAVD88         1         Z         A	1971-01-28		D	62611		3424.14	NAVD88	1	Z		А
1976-12-15 D 62611 3444.67 NAVD88 1 Z	1971-01-28		D	72019	211.86			1	Z		А
	1976-12-15		D	62610		3443.10	NGVD29	1	Z		А
1976-12-15 D 72019 191.33 1 Z	1976-12-15		D	62611		3444.67	NAVD88	1	Z		A
	1976-12-15		D	72019	191.33			1	Z		А

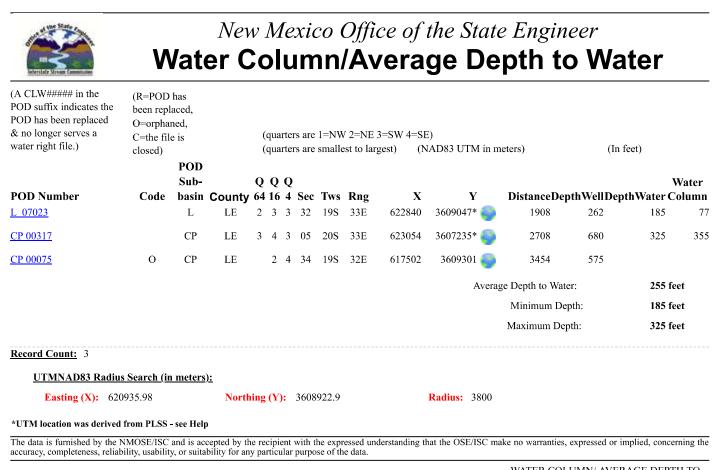
Explanation							
Section	Code	Description					
Water-level date-time accuracy	D	Date is accurate to the Day					
Parameter code	62610	Groundwater level above NGVD 1929, feet					
Parameter code	62611	Groundwater level above NAVD 1988, feet					
Parameter code	72019	Depth to water level, feet below land surface					
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988					
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929					
Status	1	Static					
Method of measurement	Z	Other.					
Measuring agency		Not determined					
Source of measurement		Not determined					
Water-level approval status	А	Approved for publication Processing and review completed.					

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

Accessibility FOIA Privacy Policies and Notices <u>U.S. Department of the Interior | U.S. Geological Survey</u> Title: Groundwater for New Mexico: Water Levels URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?

Page Contact Information: <u>New Mexico Water Data Maintainer</u> Page Last Modified: 2021-02-18 15:01:11 EST 0.36 0.32 nadww02 USA.gov

.



3/19/21 1:26 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

# Appendix C

**Released to Imaging: 10/28/2022 7:52:02 AM** 

From:	Groves, Amber				
To:	Chase Settle; Yu, Olivia, EMNRD				
Cc:	Katie Parker; Oberding, Tomas, EMNRD				
Subject:	RE: Lusk-Belco Work Plan				
Date:	Thursday, April 6, 2017 12:14:59 PM				
Attachments:	image002.png				
	image004.png				
	image001.png				

### Chase,

NMSLO is in agreement with NMOCD on work plan approval. Your revegetation plan is also approved.

Thank you,

### **Amber Groves**

Remediation Specialist Field Operations Division (575)392-3697 (575)263-3209 cell New Mexico State Land Office 2827 N. Dal Paso Suite 117 Hobbs, NM 88260

### .....

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From: Chase Settle [mailto:Chase\_Settle@eogresources.com]
Sent: Thursday, April 06, 2017 11:12 AM
To: Groves, Amber <agroves@slo.state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Cc: Katie Parker <Katie\_Parker@eogresources.com>; Oberding, Tomas, EMNRD
<Tomas.Oberding@state.nm.us>
Subject: Lusk-Belco Work Plan

Please find attached the updated work plan for the below listed location. The seeding and noxious weed protocol have been corrected to meet the requests of NMSLO. I have redacted all analytical information to minimize the file size.

### Lusk-Belco Water Line

Section 36, T19S-R32E Lea County, New Mexico 32.61124, -103.71108 1RP-4280

Thank you,

Chase Settle, M.S. Rep Safety & Environmental II

### **EOG Resources**

105 S. 4<sup>th</sup> Street Artesia, NM 88210 575-748-4171 (Office) 575-703-6537 (Cell)



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This email has been scanned by the Symantec Email Security.cloud service. For more information please visit http://www.symanteccloud.com

From:	Yu, Olivia, EMNRD
To:	"Chase Settle"; Groves, Amber
Cc:	Katie Parker; Oberding, Tomas, EMNRD
Subject:	RE: Lusk-Belco Water Line Work Plan
Date:	Thursday, March 23, 2017 3:00:00 PM
Attachments:	image002.png image003.png

Dear Mr. Settle:

NMOCD approves the delineation workplan for 1RP-4280. Like approval from NMSLO is required for the delineation workplan and revegetation plan.

Thanks, Olivia

Olivia

From: Chase Settle [mailto:Chase\_Settle@eogresources.com]
Sent: Thursday, March 23, 2017 1:36 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Cc: Katie Parker <Katie\_Parker@eogresources.com>; Oberding, Tomas, EMNRD
<Tomas.Oberding@state.nm.us>
Subject: RE: Lusk-Belco Water Line Work Plan

Ms. Yu,

I have not heard from Dr. Oberding since February 24, 2017 (the email listed below). Attached is the work plan that was originally submitted on December 7, 2016. I have to mention that I am very surprised that approval has not been granted for this workplan by now considering that in Dr. Oberding's email on February 24, 2017, the only NMOCD concern was the depth to groundwater which I was able to provide confirmation of during correspondence the same date.

Thank you,

Chase Settle, M.S. Rep Safety & Environmental II

EOG Resources 105 S. 4<sup>th</sup> Street Artesia, NM 88210 575-748-4171 (Office) 575-703-6537 (Cell)





EOG Resources, Inc. Artesia Division Office 105 S. 4<sup>th</sup> Street Artesia, N. M. 88210

December 7, 2016

Ms. Kristen Lynch NMOCD District I 1625 N. French Drive Hobbs, New Mexico 88240 **APPROVED** By Olivia Yu at 12:59 pm, Apr 06, 2017

Re: Lusk-Belco Water Line Section 36, T19S-R32E Lea County, New Mexico 32.61124, -103.71108 1RP-4280

Ms. Lynch,

EOG Y Resources, Inc. is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated May 12, 2016.

If there are no objections with the scope of work described in the plan, EOG Y Resources, Inc. will have a contractor begin work on or after December 21, 2016.

If you have any questions, feel free to call me at (575) 748-4171

Thank you.

EOG Y Resources, Inc.

Chase Settle Adv. Environmental Representative EOG Y Resources, Inc.

Lusk-Belco Water Line Work Plan

Section 14, T20S-R32E

July 19, 2016

1RP- 4290

energy opportunity growth

### I. Location

From the intersection of 243 and 126A, take 126A north for approximately 6.07 miles, then turn east onto lease road and follow for 5.05 miles, then turn south on lease road for 2.16 miles, then turn southwest for 5,062 feet, then turn west for 3,194 feet, then turn south for 1.31 miles, take the temporary road east for 2,626 feet to the release site.

### II. Background

On May 12, 2016, EOG Y Resources, Inc. submitted to the NMOCD District I office a Form C-141 for the release of an unknown amount of Crude Oil and Produced Water with none recovered. The affected area is approximately 30 feet by 10 feet area around a pipeline within the Right of Way. Failure of a poly transfer line caused the release. Initial delineation samples were taken (5/5/2016) and sent to a NMOCD approved laboratory (5/13/2016 & 5/25/2016, results enclosed). Further sampling was conducted (6/8/2016) with samples sent to a NMOCD approved laboratory (6/17/2016, results enclosed). In order to sample delineate chloride concentrations further, a core rig was used to obtain samples (11/16/2016) which were sent to a NMOCD approved laboratory (11/30/2016, results enclosed).

### III. Surface and Ground Water

Area surface geology is Cenozoic Quaternary. The ChevronTexaco Trend Map displays at this location (Section 36, T19S-R32E) that depth to groundwater is approximately 185 feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is zero (0) based on the as following: Depth to ground water > 100' Wellhead Protection Area > 1000' Distance to surface water body > 1000'

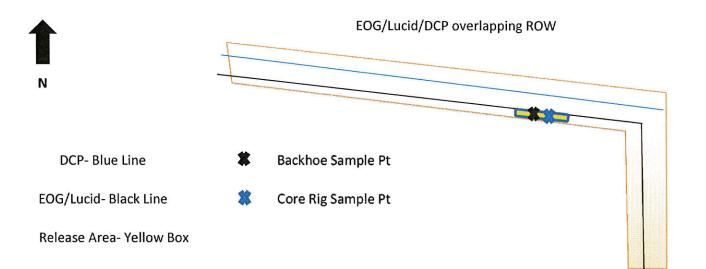
### IV. Soils

The area consists of soils that are sand based topsoil on top of a clay/sand/loam mix with a thick fine-clay layer prohibiting further migration of contaminants beginning at 35' BSL and continuing past 45' BSL.

### V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (185'), and a decrease in chlorides, EOG Y Resources, Inc. will excavate four (4) feet of impacted soil from the release area, hauling all excavated soil to a NMOCD approved facility for disposal. EOG Y Resources, Inc. will then install a 20 ml synthetic liner to prohibit percolation of moisture deeper into the subsurface, restricting further chloride migration deeper towards groundwater or rising back to the surface. EOG Y Resources, Inc. will then backfill the excavated area with two (2) feet of caliche, followed by two (2) feet of topsoil to allow for vegetative repopulation of the release site. The first July following soil remediation, the site will be reseeded with the following seed mix with a lb. PLS/acre basis: Sand dropseed 1.0 lb/acre, Plains bristlegrass 2.0 lb/acre, and Little bluestem 1.0 lb/acre (if broadcast these amounts will be doubled). During site remediation monitoring, evaluations for noxious weeds (NM Noxious Weed List updated Oct. 2016) will be undertaken. If noxious weeds are present, they will be addressed using the appropriate method (chemical, mechanical, or biological) until eradication is complete. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (5000 ppm) for the Total Ranking Score of zero (0) in the release area, no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141 Final Report will be submitted to the NMOCD requesting closure of the site.

energy opportunity growth



	Lusk-Belco Water Line								
Area	Analysis #	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1605302	Release Area	5/5/2016	Backhoe	1'	N/D	N/D	N/D	7300
S1-2'	1605302	Release Area	5/5/2016	Backhoe	2'	N/D	N/D	N/D	13000
<b>S1-3</b> '	1605302	Release Area	5/5/2016	Backhoe	3'	N/D	N/D	N/D	14000
S1-4'	1605302	Release Area	5/5/2016	Backhoe	4'	N/D	N/D	N/D	19000
S1-5'	1605740	Release Area	5/5/2016	Backhoe	5'				25000
S1-6'	1605740	Release Area	5/5/2016	Backhoe	6'				25000
S1-8'	1605740	Release Area	5/5/2016	Backhoe	8'				26000
S1-10'	1605740	Release Area	5/5/2016	Backhoe	10'				24000
S1-12'	1605740	Release Area	5/5/2016	Backhoe	12'				22000
S1-14'	1605740	Release Area	5/5/2016	Backhoe	14'				20000
S1-17'	1606535	Release Area	6/8/2016	Backhoe	17'				16000
S1-18'	1606535	Release Area	6/8/2016	Backhoe	18'				13000
<b>S1-20'</b>	1606535	Release Area	6/8/2016	Backhoe	20'				17000
CR-20'	1611A10	Release Area	6/8/2016	Core Rig	20'				16000
CR-25'	1611A10	Release Area	6/8/2016	Core Rig	25'				8700
CR-30'	1611A10	Release Area	6/8/2016	Core Rig	30'				14000
CR-35'	1611A10	Release Area	6/8/2016	Core Rig	35'				740
CR-40'	1611A10	Release Area	6/8/2016	Core Rig	40'				490
CR-45'	1611A10	Release Area	6/8/2016	Core Rig	45'				500

Site Ranking is Zero (0). >100' (185', Section 36, T19S-R32E, Trend Map) All results are ppm. Chlorides for documentation

Released: Unknown; Recovered: 0 Release Date: 04/28/2016



May 13, 2016

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4195 FAX

RE: Lusk AHB Belco Water Line

OrderNo.: 1605302

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/6/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers 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 #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Analytical Report** Lab Order 1605302

### Date Reported: 5/13/2016

### Hall Environmental Analysis Laboratory, Inc.

Analyses		Result	PQL Q	ual Units	DF Date Analyzed	Batch
Lab ID:	1605302-001	Matrix:	SOIL	Received	Date: 5/6/2016 10:30:00 AM	
<b>Project:</b>	Lusk AHB Belco Water Line			Collection	Date: 5/5/2016 12:14:00 PM	
CLIENT:	Yates Petroleum Corporation	Client Sample ID: S1-1'				

•					•	
EPA METHOD 300.0: ANIONS					Analyst	JRR
Chloride	7300	300	mg/Kg	200	5/13/2016 11:51:57 AM	25299
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS	6			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	5/10/2016 8:15:26 PM	25219
Surr: DNOP	93.4	70-130	%Rec	1	5/10/2016 8:15:26 PM	25219
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Surr: BFB	99.1	80-120	%Rec	1	5/9/2016 8:40:26 PM	25187
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Benzene	ND	0.024	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Toluene	ND	0.047	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Ethylbenzene	ND	0.047	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Xylenes, Total	ND	0.095	mg/Kg	1	5/9/2016 8:40:26 PM	25187
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	5/9/2016 8:40:26 PM	25187

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

*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	Ē	Value above quantitation range
н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 8
ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified
	H ND	<ul> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>R RPD outside accepted recovery limits</li> </ul>	DSample Diluted Due to MatrixEHHolding times for preparation or analysis exceededJNDNot Detected at the Reporting LimitPRRPD outside accepted recovery limitsRL

Lab ID:

**CLIENT:** Yates Petroleum Corporation

Project: Lusk AHB Belco Water Line

1605302-002

Analytical Report Lab Order 1605302

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/13/2016 Client Sample ID: S1-2' Collection Date: 5/5/2016 12:16:00 PM

Received Date: 5/6/2016 10:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	13000	750	mg/Kg	500	5/13/2016 12:04:22 PM	25299
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/10/2016 8:37:09 PM	25219
Surr: DNOP	92.9	70-130	%Rec	1	5/10/2016 8:37:09 PM	25219
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Surr: BFB	99.3	80-120	%Rec	1	5/9/2016 9:03:53 PM	25187
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	0.096	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Benzene	ND	0.024	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Toluene	ND	0.048	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Ethylbenzene	ND	0.048	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Xylenes, Total	ND	0.096	mg/Kg	1	5/9/2016 9:03:53 PM	25187
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	5/9/2016 9:03:53 PM	25187

Matrix: SOIL

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

<b>Oualifiers</b> :	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
<b>C</b>	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 8
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** Lab Order 1605302

Date Reported: 5/13/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum CorporationClient Sample ID: S1-3'Project: Lusk AHB Belco Water LineCollection Date: 5/5/2016 12:19:00 PMLab ID: 1605302-003Matrix: SOILReceived Date: 5/6/2016 10:30:00 AM	Analyses		Result	POL C	ual Uni	s DF Date Analyzed	B
	Lab ID:	1605302-003	Matrix:	SOIL	Ree	eived Date: 5/6/2016 10:30:00 AM	
CLIENT: Yates Petroleum Corporation Client Sample ID: S1-3'	<b>Project:</b>	Lusk AHB Belco Water Line			Coll	ection Date: 5/5/2016 12:19:00 PM	
	CLIENT:	Yates Petroleum Corporation			Client	Sample ID: S1-3'	

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analysi	: JRR
Chloride	14000	750	mg/Kg	500	5/13/2016 12:16:46 PM	25299
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	1			Analyst	t: KJH
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/10/2016 8:58:50 PM	25219
Surr: DNOP	93.2	70-130	%Rec	1	5/10/2016 8:58:50 PM	25219
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Surr: BFB	99.0	80-120	%Rec	1	5/9/2016 9:27:18 PM	25187
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Methyl tert-butyl ether (MTBE)	ND	0.094	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Benzene	ND	0.024	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Toluene	ND	0.047	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Ethylbenzene	ND	0.047	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Xylenes, Total	ND	0.094	mg/Kg	1	5/9/2016 9:27:18 PM	25187
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	5/9/2016 9:27:18 PM	25187

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 8
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report** 

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1605302 Date Reported: 5/13/2016

CLIENT: Yates Petroleum Corporation	Client Sample ID: S1-4'											
Project: Lusk AHB Belco Water Line			<b>Collection</b> I	Date: 5/5/	2016 12:23:00 PM							
Lab ID: 1605302-004	Matrix: SOIL Received Date: 5/6/2016 10:30:00 AM											
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch						
EPA METHOD 300.0: ANIONS					Analyst:	JRR						
Chloride	19000	750	mg/Kg	500	5/13/2016 12:29:10 PM	25299						
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	6			Analyst:	KJH						
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	5/10/2016 9:20:38 PM	25219						
Surr: DNOP	93.4	70-130	%Rec	1	5/10/2016 9:20:38 PM	25219						
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	NSB						
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Surr: BFB	98.9	80-120	%Rec	1	5/9/2016 9:50:44 PM	25187						
EPA METHOD 8021B: VOLATILES					Analyst	NSB						
Methyl tert-butyl ether (MTBE)	ND	0.097	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Benzene	ND	0.024	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Toluene	ND	0.048	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Ethylbenzene	ND	0.048	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Xylenes, Total	ND	0.097	mg/Kg	1	5/9/2016 9:50:44 PM	25187						
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	5/9/2016 9:50:44 PM	25187						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 8
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client: Project:		s Petroleum Con AHB Belco W	•								
Sample ID	MB-25299	SampTy	/pe: mb	lk	Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 25	299	F	RunNo: 3	4199				
Prep Date:	5/12/2016	Analysis Da	ate: 5/	12/2016	S	SeqNo: 1	054649	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID	LCS-25299	SampTy	/pe: lcs		Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 25	299	F	RunNo: 3	4199				
Prep Date:	5/12/2016	Analysis Da	ate: 5/	12/2016	S	SeqNo: 1	054650	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	91.2	90	110			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#:

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1605302

13-May-16

Result

54

5.1

PQL

SampType: MBLK

10

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		ntal Analysis L	aborat	ory, Inc.					WO#:	1605302 13-May-16
Client: Project:		Petroleum Corporatio AHB Belco Water Lin								
	LCS-25208 LCSS	SampType: LCS Batch ID: 252			tCode: EF		8015M/D: Die	esel Range	e Organics	
Prep Date:		Analysis Date: 5/1			SeqNo: 1		Units: %Red	;		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		6.3	5.000		126	70	130			
Sample ID	LCS-25219	SampType: LCS	S	Tes	tCode: El	PA Method	8015M/D: Die	sel Rang	e Organics	
Client ID:	LCSS	Batch ID: 252	:19	F	RunNo: 34	4107				
Prep Date:	5/9/2016	Analysis Date: 5/1	0/2016	5	SeqNo: 1	051392	Units: mg/K	g		

LowLimit

65.8

70

107

101

HighLimit

TestCode: EPA Method 8015M/D: Diesel Range Organics

136

130

%RPD

**RPDLimit** 

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Qual

SPK value SPK Ref Val %REC

0

50.00

5.000

Client ID: PBS	Batch ID: 252	08	R	unNo: 3	4107								
Prep Date: 5/9/2016	Analysis Date: 5/1	0/2016	S	eqNo: 1	051393	Units: %Red	C						
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Surr: DNOP	10	10.00		100	70	130			nin ophiochisteatileaeae				
Sample ID         MB-25219         SampType:         MBLK         TestCode:         EPA Method 8015M/D: Diesel Range Organics													
Client ID: PBS	Batch ID: 252	19	R	lunNo: 3	4107								
Prep Date: 5/9/2016	Analysis Date: 5/1	0/2016	S	eqNo: 1	051394	Units: mg/K	g						
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO)	ND 10				han Malok Petra Yang sang sebagai ke								
Surr: DNOP	11	10.00		106	70	130							

Qualifiers:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

Sample ID MB-25208

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

	etroleum Cor IB Belco Wa	100 E								
Sample ID MB-25187	SampTy	pe: ME	BLK	Test	Code: El	PA Method	8015D: Gaso	line Rang	e	ana ang ang ang ang ang ang ang ang ang
Client ID: PBS	Batch	ID: 25	187	R	tunNo: 34	4080				
Prep Date: 5/6/2016	Analysis Da	ate: 5/	9/2016	S	eqNo: 1	050472	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 970	5.0	1000		96.5	80	120			
Sample ID LCS-25187	SampTy	pe: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch	ID: 25	187	F	RunNo: 3	4080				
Prep Date: 5/6/2016	Analysis Da	ate: 5/	9/2016	S	SeqNo: 1	050473	Units: mg/M	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	80	120			
Surr: BFB	1000		1000		105	80	120			

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1605302

13-May-16

WO#:

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Client: Yates Pe	Yates Petroleum Corporation														
Project: Lusk AH	IB Belco W	ater Li	ne												
Sample ID MB-25187	mple ID MB-25187 SampType: MBLK TestCode: EPA Method 8021B: Volatiles														
		•••					00210. 1010								
Prep Date: 5/6/2016	Date: 5/6/2016 Analysis Date: 5/9/2016 SeqNo: 1050509 Units: mg/Kg														
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Methyl tert-butyl ether (MTBE)	ND	0.10													
Benzene	ND	0.025													
Toluene	ND	0.050													
Ethylbenzene	ND	0.050													
Xylenes, Total	ND	0.10													
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120								
Sample ID LCS-25187	SampT	ype: LC	S	Tes	Code: El	PA Method	8021B: Volat	tiles							
Client ID: LCSS	Batch	n ID: 25	187	F	tunNo: 3	4080									
Prep Date: 5/6/2016	Analysis D	)ate: 5/	9/2016	S	eqNo: 1	050510	Units: mg/K	(g							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	101	61	143								
Benzene	1.1	0.025	1.000	0	106	75.3	123								
Toluene	0.96	0.050	1.000	0	96.3	80	124								
Ethylbenzene	0.91	0.050	1.000	0	91.0	82.8	121								
Xylenes, Total	2.7	0.10	3.000	0	91.1	83.9	122								
Surr: 4-Bromofluorobenzene															

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#:

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1605302

13-May-16

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental . Albu TEL: 505-345-3975 . Website: www.hal	4901 morqu FAX-5	Hamkins v, NM 87 05-345-4	NE 769 <b>S</b> 707	Sample Log-In Check List						
Client Name: Yates Petroleum Corpora	Work Order Number:	1605:	302	Tarten and Course provide and an	NATION PROVIDE AT AN	ReptNo: 1	ning particular (* 2011) Caldweiner proster server (*				
Received hy/date:	estalic										
Logged By: Lindsay Mangin	5/6/2016 10:30:00 AM			( Joneby)	Hages						
Completed By. Lindsay Mangin	5/6/2016 12:58:06 PM			June (	Marso						
Reviewed By:	05/06/16			$\nu \cdot$	4						
Chain of Custody	0,10-110										
1 Custody seals intact on sample bottles?		Yes		No		Not Present V					
2. Is Chain of Custody complete?		Yes	¥.	No		Not Present					
3 How was the sample delivered?		Cour	ier								
Log In											
<ol> <li>Was an attempt made to cool the samples</li> </ol>	?	Yes	~	No		NA					
5. Were all samples received at a temperature	e of ⊃0° C to 6.0°C	Yes	<b>×</b>	No	L	NA					
6. Sample(s) in proper container(s)?		Yes	>	No	1						
7. Sufficient sample volume for indicated lest	s)?	Yes	V	No	( <sup>and</sup>						
8. Are samples (except VOA and ONG) prope		Yes	1	No							
9. Was preservative added to bottles?		Yes	have a second	No	V	NA					
10.VOA vials have zero headspace?		Yes	[]	No	1	No VOA Vials 🔽					
11, Were any sample containers received brok	en?	Yes		No	1						
10 0			<b>x</b>			# of preserved bottles checked					
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	×	No	Record P	for pH: (<2 or >1	2 unless noted)				
13. Are matrices correctly identified on Chain o	f Custody?	Yes	V	No		Adjusted?					
4. Is it clear what analyses were requested?		Yes		No	I.						
<ol> <li>Were all holding times able to be met? (if no, notify customer for authorization.)</li> </ol>		Yes	V	No	1.	Checked by:					
Special Handling (if applicable)											
16. Was client notified of all discrepancies with	this order?	Yes		No		NA 🗹					
Person Notified.	Date	essi ita dalamata a	motifiller string in comes	and a state of the s	introduction of the						
By Whom:	Va:	eMa	ail 🗍 F	hone	Fax	In Person					
Regarding:		0001003053053093064100	aloritoria referituricense	enterne no mar produkter tea.							
Client Instructions:		ovan dha te qizi dhini Qizi kumi		an a	antan fectamotika	and a statement of a second					
17. Additional remarks:											
18. Cooler Information	. 27 <b>.</b>		1.40		15						
and the second se	and a second participation of the second	Seal Da	ate	Signed E	Зу						
1 10 Good Ye	39										

ENTAL	LABORATORY		0		The set of the set				(N	ol	۲)	səlduð iA							jesi report.
HALL FNVTRONMENTAL	ANALYSIS LABOR	www.hallenvironmental.com	- Albuquerque, NM 87109	5 Fax 505-345-4107	Analysis Request		-		ON	( / 5 *EO ,	() 106 11 <b>0</b> 118	AM9) 9168 -M 8 A9129 <b>D,3) anoinA</b> Maxil 1808 (OV) 89838 Free2) 9533	×	X	×			5-13.16.	Date Time Date Time acredited laboratories. This serves as notice of this possibility. Any sub-contracted deta will be clearly notated on the sheriydesi report
HAI	ANA	www.h	4901 Hawkins NE	Tel. 505-345-3975		(åju	0.88	$\odot\rangle$	() () <b>B (</b> (	1'0' '81 910 1 +	3 0X 7 0X 9 <b>8 P</b>	81EX + MT FPH (Metho TPH (Metho FDS (Metho F	××					Remarks: Rev 15 Red 24 -	r poscibility, Any sub-contracted de
			Water Line				0	750	4	0N 0	6	HEAL No.	141-	-117	int -	1115		Date Time 1 05/05//6 1030	Date Time con Time
Turn-Arbund Time:	darc 🗆 Rush	lame:	Lusk AHB-Belco Water Line	:#		Aanager:	Chase Settle	PO # 205. 0750	Chase Settle	ă Yes	Sample Temperature: / /	ner Preservative Id # Type	ICE	10.1 T	100 1-1	10 17 14		Curt.	
Turn-Arb	X Standarc	Project N		Project #		Project Mar			Sampler	On Ice:	Sample <sup>7</sup>	Container Type and #	1 - 4oz.		2017-1	.5 <sup>12</sup> - 1		Received by:	Received by:
Chain-of-Custody Record	Nient: Yates Petroleum Corporation			05 South 4th Street Artesia, NM 88210	1637	csettle@yatespetroleum.com		Level 4 (Full Validation)				Sample Request ID		51-21	51-37	31-41		in the second se	Tirrie: Reditriquished by: Received by: Rece
-of-Cus	etroleum C			treet Artes	575-703-6537	csettle@y	1.000	Alexie		D Other		Matrix	Sol	<u> </u>	Sc.			Relinquished by:	Refinquished by
Chain-	: Yates P		Aailing Address:	outh 4th S	#	smail or Fax#:	DA/QC Package:	Standard	Accreditation:	NELAP	EDD (Type)		5 15 A	12.16	o 12-19 0			- me: 2. of t	
-	Zient		Aailin	05 S	hone #:	ilem:	DAVQC	□ Sta	Vocre.	E			-9 	- ? 10		jų J		Sate:	Date:

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May 25, 2016

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4195 FAX

RE: Lusk AHB Belco Water Line

OrderNo.: 1605740

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 5/17/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers 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 #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	nental Analysis l	Laborato	ry, Inc.		Lab Order: 1605740 Date Reported: 5/25/2016
	ates Petroleum Corporat usk AHB Belco Water L			L٤	ab Order: 1605740
Lab ID:	1605740-001		(		5/5/2016 12:28:00 PM
Client Sample ID:	S1-5'			Matrix:	SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300	0: ANIONS				Analyst: LGT
Chloride		25000	1500	mg/Kg	1E 5/23/2016 9:09:28 PM 25413
Lab ID:	1605740-002		(	Collection Date:	5/5/2016 12:31:00 PM
Client Sample ID:	S1-6'			Matrix:	SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300. Chloride	.0: ANIONS	25000	1500	mg/Kg	Analyst: LGT 1E 5/23/2016 9:21:52 PM 25413
Lab ID:	1605740-003			Collection Date:	5/5/2016 12:37:00 PM
Client Sample ID:	S1-8'			Matrix:	: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300	.0: ANIONS				Analyst: LGT
Chloride		26000	1500	mg/Kg	1E 5/23/2016 9:34:17 PM 25413
Lab ID:	1605740-004			Collection Date:	: 5/5/2016 12:44:00 PM
Client Sample ID:	S1-10'			Matrix	: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300	.0: ANIONS				Analyst: LGT
Chloride		24000	1500	mg/Kg	1E 5/23/2016 9:46:41 PM 25413
Lab ID:	1605740-005			Collection Date:	: 5/5/2016 12:50:00 PM
<b>Client Sample ID:</b>	S1-12'			Matrix	: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	22000	750	mg/Kg	Analyst: LGT 500 5/23/2016 10:23:55 PM 25413

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

Qualifiers:	*	Value exceeds I	Maximum
-------------	---	-----------------	---------

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Contaminant Level.

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 3
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

Hall Envi	ronmental Analys	is Laborat	ory Inc		Analytical Repo	40
CLIENT: Project:	Yates Petroleum Corp Lusk AHB Belco Wat	oration	ory, me.		Lab Order: 160	)5740
Lab ID: Client Sample	1605740-006 e ID: \$1-14'				Date: 5/5/2016 12:58:00 atrix: SOIL	РМ
Analyses		Result	PQL Qual	Units	DF Date Analyze	d Batch ID
EPA METHO Chloride	D 300.0: ANIONS	20000	750	mg/Kg	, 500 5/23/2016 10:30	Analyst: <b>LGT</b> 5:19 PM 25413

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 3
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

WO#: 1605740 25-May-16

	Petroleum Corporation AHB Belco Water Line		v
Sample ID MB-25413	SampType: mblk	TestCode: EPA Method 300.0: Anions	
Client ID: PBS	Batch ID: 25413	RunNo: 34392	
Prep Date: 5/19/2016	Analysis Date: 5/19/2016	SeqNo: 1060476 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5		
Sample ID LCS-25413	SampType: Ics	TestCode: EPA Method 300.0: Anions	
Client ID: LCSS	Batch ID: 25413	RunNo: 34392	
Prep Date: 5/19/2016	Analysis Date: 5/19/2016	SeqNo: 1060477 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Chloride	15 1.5 15.00	0 97.0 90 110	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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Logged By:       Lindsay Mangin       5/17/2016 8:40.00 AM       Juilian         Completed By:       Lindsay Mangin       5/17/2016 9:51:52 AM       Juilian         Reviewed By:       O 5/17/1/L       Juilian       Juilian         Chain of Custody       A       O 5/17/1/L       Juilian         Chain of Custody       A       O 5/17/1/L       Juilian         Chain of Custody       A       O 5/17/1/L       No       No         1.       Custody seals infact on sample bottles?       Yes       No       No       No Pr         2.       Is Chain of Custody complete?       Yes       No       No       No Pr         3.       How was the sample delivered?       Courier       Courier       No       No         4.       Was an altempt made to cool the samples?       Yes       No       No       So         5.       Were all samples received at a temperature of >D* C to B 0*C       Yes       No       So       So         7.       Sufficient sample volume for indicated test(s)?       Yes       No       So	g-In Check List
Logged By: Lindsay Mangin 5/17/2016 8:40.00 AM Completed By: Lindsay Mangin 5/17/2016 9:51:52 AM Additional State of the second state of the s	ReptNo: 1
Completed By:       Lindsay Mangin       5/17/2016 9:51/52 AM       July 2010         Reviewed By:       OS/11/1/G       OS/11/1/G         1. Custody seals intact on sample bottles?       Yes       No       Not Provide	
Reviewed By:       2       0.5/11/l/c         Chain of Custody seals intact on sample bottles?       Yes       No       Not Private Priv	
Chain of Custody         1. Custody seals intact on sample bottles?       Yes       No       No Prive         2. Is Chain of Custody complete?       Yes       No       Not Prive         3. How was the sample delivered?       Courier         Log In	
Chain of Custody         1. Custody seals infact on sample bottles?       Yes       No       No Prive         2. Is Chain of Custody complete?       Yes       No       Not Prive         3. How was the sample delivered?       Courier         Log In	
1       Custady seals intact on sample bottles?       Yes       No       No Pr         2. Is Chain of Custady complete?       Yes       No       No Pr         3. How was the sample delivered?       Courier         Log In       4. Was an altempt made to cool the samples?       Yes       No       No         5. Were all samples received at a temperature of >0° C to 5.0°C       Yes       No       No         6. Sample(s) in proper container(s)?       Yes       No       No          7. Sufficient samples received at a temperature of >0° C to 5.0°C       Yes       No          8. Are samples (except VOA and ONG) properly preserved?       Yes       No          9. Was preservative added to bottles?       Yes       No        No VOA         10. VOA viais have zero headspace?       Yes       No       No VOA          11. Were any sample containers received broken?       Yes       No        for printice of the delise?         12. Does paperwork match bottle labels?       Yes       No        Are matrices correctly identified on Chain of Custady?       Yes       No       Are printice of the delise?         13. Are matrices correctly identified on Chain of Custady?       Yes       No        Are preson Nob fee: </td <td></td>	
2. Is Chain of Custody complete?       Yes       No       No Print         3. How was the sample delivered?       Courier         Log In       4. Was an altempt made to cool the samples?       Yes       No       No         5. Were all samples received at a temperature of >0° C to 5 0° C       Yes       No       No       6. Sample(s) in proper container(s)?       Yes       No       10.         7. Sufficient sample volume for indicated test(s)?       Yes       No       10.       10.       No       10.         9. Was preservative added to bottles?       Yes       No       No       10.       No       10.         10. VOA vials have zero headspace?       Yes       No       No       10.       No       10.         11. Were any sample containers received broken?       Yes       No       10.       VOA       10.       10.       VOA vials have zero headspace?       Yes       No       10.       VOA         12. Dees paperwork match bottle tabels?       Yes       No       10.       VOA       10.       VOA         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Adv       Adv         14. Is it clear what analyses were requested?       Yes       No       Adv       Adv	esent 🖌
3 How was the sample delivered?       Courier         Log In       4. Was an alternpt made to cool the samples?       Yes       No         5. Were all samples received at a temperature of >0° C to 5 0° C       Yes       No          6. Sample(s) in proper container(s)?       Yes       No          7. Sufficient samples volume for indicated test(s)?       Yes       No          8. Are samples (except VOA and ONG) properly preserved?       Yes       No          9. Was preservative added to tottles?       Yes       No        # of preservative added to tottles?         10. VOA viais have zero headspace?       Yes       No        # of preservative added to tottles?         12. Dees paperwork match bottle tabels?       Yes       No        for preservative added to clastody?         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Are matrices correctly identified on Chain of Custody?         14. Is it clear what analyses were requested?       Yes       No       Chain of Custody?         15. Were all holding times able to the met?       Yes       No       Chain of Custody?         16. Was client notified of all discrepancies with this order?       Yes       No       Chain of Custody?         16. Was client notified of all discrep	esent
4. Was an attempt made to dod the samples?       Yes       No         5. Were all samples received at a temperature of >0° C to 5.0°C       Yes       No         6. Sample(s) in proper container(s)?       Yes       No         7. Sufficient sample volume for indicated test(s)?       Yes       No         8. Are samples (except VOA and ONG) properly preserved?       Yes       No         9. Was preservative added to bottles?       Yes       No         10. VOA viais havo zoro headspace?       Yes       No         11. Were any sample containers received broken?       Yes       No         12. Does paperwork match bottle tabels?       Yes       No       Are preservative added on Chain of Custody?         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Are preserve in the identified on Chain of Custody?         14. Is it clear what analyses were requested?       Yes       No       Are preserve in the identified on Chain of Custody?         15. Were all holding times able to be met?       Yes       No       Chain         16. Was client notified of all discrepancies with this order?       Yes       No         Person Notified:       Date       Date       Expanding:         By Whom:       Via:       eMait       Phone       Fax       In Per	
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5. Were all samples received at a temperature of >0° C to 5.0°C       Yes       No         6. Sample(s) in proper container(s)?       Yes       No         7. Sufficient sample volume for indicated test(s)?       Yes       No         8. Are samples (except VOA and ONG) properly preserved?       Yes       No         9. Was preservative added to bottles?       Yes       No         10. VOA viais have zero headspace?       Yes       No         11. Were any sample containers received broken?       Yes       No         12. Does paperwork match bottle labels?       Yes       No       # of preserved bottles?         12. Does paperwork match bottle labels?       Yes       No       for pH:         (Note discrepancies on chain of custody)       13. Are matrices correctly identified on Chain of Custody?       Yes       No         13. Were all holding times able to be met?       Yes       No       Action (for pH:         (If no, notify customer for authorization.)       Yes       No       Chain         Special Handling (if applicable)       Person Notified:       Date	NA
6. Sample(s) in proper container(s)?       Yes       No         7. Sufficient sample volume for indicated test(s)?       Yes       No         8. Are samples (except VOA and ONG) properly preserved?       Yes       No         9. Was preservative added to bottles?       Yes       No         10. VOA vials have zero headspace?       Yes       No         11. Were any sample containers received broken?       Yes       No         12. Does paperwork match bottle tabels?       Yes       No         13. Are matrices correctly identified on Chain of Custody?       Yes       No         14. Is it clear what analyses were requested?       Yes       No         15. Were all holding times able to be met?       Yes       No         (If no, notify customer for authorization.)       Special Handling (if applicable)         16. Was client notified:       Date       Date         By Whom:       Via:       eMail       Phone         Regarding:       Cient Instructions       Via:       eMail	NO
7. Sufficient sample volume for indicated test(s)?       Yes       No         8. Are samples (except VOA and ONG) properly preserved?       Yes       No         9. Was preservative added to bottles?       Yes       No         10. VOA viais have zero headspace?       Yes       No         11. Were any sample containers received broken?       Yes       No         12. Does paperwork match bottle labels?       Yes       No       # of prestonties of for pH:         (Note discrepancies on chain of custody)       13. Are matrices correctly identified on Chain of Custody?       Yes       No       Are         14. Is it clear what analyses were requested?       Yes       No       Are         15. Were all holding times able to be met?       Yes       No       Ch         (If no, notify customer for authorization.)       Special Handling (if applicable)       Ch         16. Was client notified of all discrepancies with this order?       Yes       No       Ch         Person Notified:       Date       Date       Eate       Eate       Eate       Eate       Eate       In Person Notified:       Ch       Ch and in Person       In Person Notified       No       No       Person Notified       No       Person Notified       No       No       Person Notified       No       No <td< td=""><td>NA</td></td<>	NA
8. Are samples (except VOA and ONG) properly preserved?       Yes       No         9. Was preservative added to bottles?       Yes       No         10. VOA vials have zero headspace?       Yes       No         11. Were any sample containers received broken?       Yes       No         12. Does paperwork match bottle labels?       Yes       Yes       No         12. Does paperwork match bottle labels?       Yes       Yes       No       # of prestbottles of torp H::         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Action prestbottle         14. Is it clear what analyses were requested?       Yes       No       Action prestbottle         15. Were all holding times able to be met?       Yes       No       Ch         (If no, notify customer for authorization.)       Special Handling (if applicable)       16. Was client notified of all discrepancies with this order?       Yes       No         Person Notified:	
9. Was preservative added to bottles?       Yes       No       M         10. VOA viais have zero headspace?       Yes       No       No       VOA         11. Were any sample containers received broken?       Yes       No       ✓       # of prestrictions         12. Does paperwork match bottle labels?       Yes       No       ✓       # of prestrictions         12. Does paperwork match bottle labels?       Yes       No       ✓       # of prestrictions         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Ac         14. Is it clear what analyses were requested?       Yes       No       Ac         15. Were all holding times able to be met?       Yes       No       Ch         (If no, notify customer for authorization.)       Yes       No       Ch         Special Handling (if applicable)       If were all discrepancies with this order?       Yes       No         16. Was client notified of all discrepancies with this order?       Yes       No       In Person Notified:         By Whom:	
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11. Were any sample containers received broken?       Yes       No       ✓         12. Does paperwork match bottle labels?       Yes       Yes       No       for pH:         12. Does paperwork match bottle labels?       Yes       Yes       No       for pH:         13. Are matrices correctly identified on Chain of Custody?       Yes       No       Ad         14. Is it clear what analyses were requested?       Yes       No       Ad         15. Were all holding times able to be met?       Yes       No       Ch         (If no, notify customer for authorization.)       Yes       No       Ch         Special Handling (if applicable)       If when:       Date       Date         By Whom:       Via:       eMail       Phone       Fax       In Per         Regarding:       Cient Instructions:       Via:       eMail       Phone       Fax       In Per	NA
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13. Are matrices correctly identified on Chain of Custody?       Yes       ✓       No       Ad         14. Is it clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear what analyses were requested?       Yes       ✓       No       Image: Clear were were were were were were were w	(<2 or >12 unless not
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17. Additional remarks:	inter-constant and Fried Charlement
18. <u>Cooler Information</u> <u>Cooler No</u> Temp <sup>o</sup> C Condition Seal Intact Seal No Seal Date Signed By 1 5.4 Good Yes	

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X Standart     Rush       ss:     Lusk AHB-Belco Wate       ss:     Lusk AHB-Belco Wate       ss:     Lusk AHB-Belco Wate       ss:     Street Arcesia, NM 38210       575-703-6537     Project #:       sr5-703-6537     Project #:       street Arcesia, NM 38210     Project #:       street Arcesia, NM 38210     Project #:       street Arcesia     Project #:       street Arcesia     None       ps:     Dther       cattle@yatespetroleum.com     Project #:       brind     Sampler:       chase Settle     On loc:       ps:     Sample Request ID       ps:     Soil       soil     S1-5'       ps:     Soil       soil     S1-5'       ps:     S1-5'       ps:     S1-4'	1						]	]			4 > >	)			
Project Name:         Project Name:         Addit Hawfins NE         4301 Hawfins NE           Ref: Arresis, NM 88210         Project #:         Lusk AHB-Belco Water Line         4301 Hawfins NE           S75-703-6537         Project #:         Tusk AHB-Belco Water Line         4301 Hawfins NE           S75-703-6537         Project #:         Tusk AHB-Belco Water Line         4301 Hawfins NE           S75-703-6537         Project #:         Project #:         Tusk AHB-Belco Water Line         4301 Hawfins NE           S75-703-6537         Project #:         Project #:         Project #:         Example:         Example:           S75-703-6537         D # 205, 0750         Project #:         Project #:         Project #:         Fold #:           S61         D # 205         Matrix         Sample:         Character #:         Project #:         Fold #: <t< th=""><th>er se</th><th>troleum (</th><th>Corporation</th><th>X Standard</th><th></th><th></th><th></th><th></th><th>AN</th><th>ALYS</th><th>SIS</th><th>LAB A</th><th>ORAT</th><th>02</th><th></th></t<>	er se	troleum (	Corporation	X Standard					AN	ALYS	SIS	LAB A	ORAT	02	
Matrix         Sampler         4901 Hawkins NL           275-703-637         Project II:         Lusk AHB-Belco Water Line         4901 Hawkins NL           275-703-637         Project II:         Lusk AHB-Belco Water Line         4901 Hawkins NL           275-703-637         Project II:         Chase Sattle         Total Solution         1000           275-703-637         Project II:         Chase Sattle         Project II:         1000         1000           275-703-637         Project II:         Chase Sattle         Project II:         1000         1000         1000           275-703-637         Project II:         Chase Sattle         Project II:         Project II:         1000         100				Project Name	4:				ww.	v.hallenv	ironme	ntal.coi	F		
Itee:         Arcsis. NM         32210         Project #: 375-703-6537         Level 4 Full Validation         Project #: First 5: 403-6537         Tel. 505-345-3675         Arabit assection         Arabit assectincon	ddress:				k AHB-Belco	Water Line	4	901 H¢	awkins	1	buenbru	que, NN	87109		
	1 4th Stu	reet Ar.e	38210				•	Tel. 50:	5-345-3		ax 50	5-345-2	107		
Construction         Project Manager: Charace Settle         Project Manager: Charace Settle </td <td></td> <td>575-703-(</td> <td>6537</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Anal</td> <td>SIS Ke</td> <td>duest</td> <td>and a second sec</td> <td></td> <td></td>		575-703-(	6537							Anal	SIS Ke	duest	and a second sec		
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Sample Temperature. 5.4         Sample Temperature. 5.4           Metrix         Sample Request ID         Container         Preservative         HEAL No.           Type and #         Type         Type         1-402.         None         -001.         1         1         1         1         402.         Anions (F.CII)         1         402.         1         1         402.         1         1         1         402.         1         1         1         1         1         1         1         1						ON []					) 14	1.51	VC	15 in a constant of so	JO .
Metrix         Sample Request ID         Container         Preservative         HEAL No.         St.5         St.601         St.700	(be)			Sample Temp		2							)/\_\		Y) e
Soli         S1-5'         1 - 4oz         None         - OO(         None         - OO           Soli         S1-8'         1 - 4oz         None         - OOZ         No         - OOZ         None         - OOZ         No         - No<	and the second second second second	Matrix	Sample Request ID	and the second	Preservative Type	Ild			and the second				a 9(5) 07.28		alddu£l niA
Soil         S1-5         1 - 4oz         None         -002         None         -002         No           Soil         S1-8'         1 - 4oz         None         -003         1 - 4oz         1 - 4oz         None         -002         1 - 4oz         1 - 4oz         1 - 4oz         None         -002         1 - 4oz         1 - 4oz         1 - 4oz         None         -002         1 - 4oz         1 - 4oz         1 - 4oz         None         -002         1 - 4oz         1 - 4	ALC: NOT	Soil		1 - 4oz.	None	100-					×				ate Monoral and Am
Soil     S1-8'     1 - 402.     None     -003     I       Soil     S1-10'     1 - 402.     None     -003     I       Soil     S1-12'     1 - 402.     None     -003     I       Soil     S1-12'     1 - 402.     None     -003     I       Soil     S1-12'     1 - 402.     None     -003     I       Soil     S1-14'     1 - 402.     I     I     I       Situationship     I     I     I     I     I       Situation     I		Soil		1 - 4oz.	None	-022					×				_
Soil     St-10'     1 - 4oz.     None        Soil     S1-12'     1 - 4oz.     None        Soil     S1-12'     1 - 4oz.     None        Soil     S1-12'     1 - 4oz.     None        Soil     S1-14'     1 - 4oz.     None        Soil     S1-14'     1 - 4oz.     None        Soil     S1-14'     1 - 4oz.     None        Reinquished by:     S1-14'     1 - 4oz.     None        Reinquished by:     Received by:     Date     Time     Remarks:		Soil	And an internet	- N	None	-032			-		×				
Soil         S1-12'         1 - 402.         None         - 000         None           Soil         S1-14'         1 - 402.         None         - 000	and the second second second	Soil		1 <b>-</b> 4oz.	None	-021	Georges de la constant	adressin desailer an			×	100026(04004	and the second		and projection
Sol         S1-14'         1 - 402.         None         - 006         I           Reimquished by:         Received by:         Date         Image	2:50P	Sol		1 - 402.	None	-92-			anter and the second		×				
Relinquished by: Relinquished		Soil		1 - 4oz.	None	-006			Part 1		×		Hauson Herri		
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June 17, 2016

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4195 FAX

RE: Lusk AHB Belco Water Line

OrderNo.: 1606535

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/10/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers 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 #NM0190

Sincerely,

andia

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analysis	Laborat	ory, Inc.		Lab Order: 1606535 Date Reported: 6/17/2016
	ates Petroleum Corporat usk AHB Belco Water L				Lab Order: 1606535
Lab ID: Client Sample ID:	1606535-001 S1-17'				Date: 6/8/2016 10:37:00 AM trix: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	16000	750	mg/Kg	Analyst: LGT 500 6/15/2016 4:24:35 PM 25840
Lab ID:	1606535-002			Collection <b>E</b>	Date: 6/8/2016 11:14:00 AM
Client Sample ID:	S1-18'			Ma	trix: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	13000	750	mg/Kg	Analyst: LGT 500 6/15/2016 4:37:00 PM 25840
Lab ID:	1606535-003			Collection I	Date: 6/8/2016 11:30:00 AM
Client Sample ID:	S1-20'			Ma	trix: SOIL
Analyses		Result	PQL Qual	Units	DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	17000	750	mg/Kg	Analyst: LGT 500 6/15/2016 4:49:25 PM 25840

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 2
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

## QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

1606535 17-Jun-16

WO#:

Page 2 of 2

Client: Project:		s Petroleum Cc AHB Belco W	1				17				
Sample ID	MB-25840	SampT	ype: mb	olk	Tes	tCode: EF	A Method	300.0: Anion	s		a Marchard an Galantina an Anna
Client ID:	PBS	Batch	D: 25	340	F	RunNo: 34	1930				
Prep Date:	6/14/2016	Analysis D	ate: 6/	14/2016	S	SeqNo: 10	078875	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5				8				
Sample ID	LCS-25840	SampT	ype: Ics	;	Tes	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	D: 25	840	F	RunNo: 34	4930				
Prep Date:	6/14/2016	Analysis D	ate: 6/	14/2016	S	SeqNo: 10	078876	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	96.7	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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-3975 Website: www.hal	4901 Hawkins querque, NM 87 FAX: 505-345-4	NE 105 Samp	le Log-In Ch	eck List
Client Name: Yates Petroleum Corpora	at Work Order Number:	1606535		RcptNo:	1
Received by/date: Logged By: Lindsay Mangin Completed By: Lindsay Mangin	06/10/16 6/10/2016 9:30:00 AM 6/10/2016 10:32:09 AM	I	- Jonely Heligo - Jonely Heligo		
Reviewed By:					
Chain of Custody					
1. Custody seals intact on sample bottles	?	Yes 🛃	No 🗌	Not Present	
2. Is Chain of Custody complete?		Yes 🛃	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
Log In		Yes 🛃	No 🗆		
4. Was an attempt made to cool the sam	ples?	Yes 🚾			
5. Were all samples received at a temper	rature of >0° C to 6.0°C	Yes	No 🖻		
6. Sample(s) in proper container(s)?		Approved b Yes 🕢	No 🗌		
		_	_		
7. Sufficient sample volume for indicated		Yes · 🛃	No 🗌		
8. Are samples (except VOA and ONG) p	properly preserved?	Yes 🛃	No 🗌		
9. Was preservative added to bottles?		Yes 🛄	No 🛃	na 🗆	
10.VOA vials have zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🛃	
11. Were any sample containers received	I broken?	Yes	No 🛃		
12. Does paperwork match bottle labels?		Yes 🛃	No 🗆	# of preserved bottles checked for pH:	
(Note discrepancies on chain of custo	dy)	_			or >12 unless noted)
13. Are matrices correctly identified on Ch		Yes 🛃	No 🛄	Adjusted?	:
14. Is it clear what analyses were request		Yes 🛃 Yes 🛃	No 🛄 No 🔲	Checked by:	
15. Were all holding times able to be met (If no, notify customer for authorization		Yes 🛃			
Special Handling (if applicable)					
16. Was client notified of all discrepancies	s with this order?	Yes 🗌	No 🗆	NA 🛃	
	and the second	Contractor of the second s			I
Person Notified:	Date: Via:		Phone 🗍 Fax	In Person	
By Whom: Regarding:	via.				
Client Instructions:	<u></u>		and watch it for a print to be seen	nosini dhe i 1274 ye nomekasin	
17. Additional remarks:					i
18. Cooler Information					
Cooler No Temp °C Condition	n Seal Intact Seal No	Seal Date	Signed By	]	
1 19.6 Good	Yes				

Page 1 of 1

Turn-Around Time:       Hall ENV         X Standarc       Rush         X Standarc       Rush         Project Name:       ANALYSI:         Project Name:       4901 Hawkins NE - Albuqu         Project #:       Toto of the set o	01200	Project Manager:       Chase Settle       Chase Settle       Chase Settle       PO4, SO4,       (Gas only)       PO4, SO4,       dation)	Chice: Chase Settle 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.1) 504.10 505.10 505.1000000000000000000000000	Sample Tem Container Type and #		None - 002	-102				Received by Date Time Remarks:	Time: Relinquished by: Received by: Received by: Date Time Date Time
Turn-Arou X Stand Project Na	01200 IMN	csettle@yatespetroleum.com Project Mana,	Sampler: On Ice:	Sample Tenzi Sample Request ID Type and #	1 - 4oz.	1 - 4oz.	1 - 4oz.				Received by	Hall Environmental may be subcontracted to other and
Chain-of-Custody Record Client: Yates Petroleum Corporation Mailing Address:	575-703-6537	csettle@y	on:	pe) me Matrix	):37A Soil	:14A Soil	:30A Soil				am	ie: Relinquished by:
Chain- Client: Yates Pe Mailing Address:	phone #:	amail or Fax#: JA/QC Package: D Standard	Accreditation: <u> J NELAP</u>	Date Time	6/8/2016 10:37A	6/8/2016 11:14A	6/8/2016 11:30A				2	ate: Time:



November 30, 2016

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4111 FAX

RE: Lusk AHB-Belco Water Line

OrderNo.: 1611A10

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

4901 Hawkins NE

Albuquerque, NM 87109

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/18/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers 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 #NM0190

Sincerely,

andig

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysi	s Laborat	tory, Inc.		Analytical Report Lab Order 1611A10 Date Reported: 11/30	
CLIENT: Yates Petroleum CorporationProject:Lusk AHB-Belco Water LineLab ID:1611A10-001	Matrix: S	SOIL	Collection	le ID: CR-20' Date: 11/16/2016 1:55:00 PM Date: 11/18/2016 9:30:00 AI	-
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS Chloride	16000	750	mg/Kg	Anal 500 11/29/2016 12:07:21	yst: <b>LGT</b> AM 28796

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis	Analytical Report Lab Order 1611A10 Date Reported: 11/30/2016			
CLIENT: Yates Petroleum Corporation			Client Samp	le ID: CR-25'
Project: Lusk AHB-Belco Water Line			Collection	Date: 11/16/2016 2:05:00 PM
Lab ID: 1611A10-002	Matrix:	SOIL	Received	Date: 11/18/2016 9:30:00 AM
Analyses	Result	PQL Qua	l Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS				Analyst: LGT
Chloride	8700	750	mg/Kg	500 11/29/2016 12:19:46 AM 28796

Qualifiers:	ж	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
R S	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analys	Analytical Report Lab Order 1611A10 Date Reported: 11/30				
<b>CLIENT:</b> Yates Petroleum Corporation <b>Project:</b> Lusk AHB-Belco Water Line <b>Lab ID:</b> 1611A10-003	Matrix: S		Collection	le ID: CR-30' Date: 11/16/2016 2:10:00 PN Date: 11/18/2016 9:30:00 AN	-
Analyses	Result	PQL Qua	l Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS Chloride	14000	750	mg/Kg	Analy 500 11/29/2016 12:32:11	yst: <b>LGT</b> AM 28796

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

1

**Analytical Report** 

Hall Environmental Analysis	Lab Order 1611A10 Date Reported: 11/30/2016						
CLIENT: Yates Petroleum Corporation			Client Sampl				
Project: Lusk AHB-Belco Water Line			Collection Date: 11/16/2016 2:19:00 PM				
Lab ID: 1611A10-004	Matrix:	SOIL	Received	<b>Date:</b> 11.	/18/2016 9:30:00 A	М	
Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Anal	yst: LGT	
Chloride	740	30	mg/Kg	20	11/22/2016 7:43:15	PM 28796	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Ε	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Ei	nvironmental Analysis	s Laborat	ory, In	c.		Analytical Report Lab Order 1611A10 Date Reported: 11/30/2016
CLIENT: Project: Lab ID:	Yates Petroleum Corporation Lusk AHB-Belco Water Line 1611A10-005	Matrix: S	SOIL		Collection	ple ID: CR-40' n Date: 11/16/2016 2:28:00 PM d Date: 11/18/2016 9:30:00 AM
Analyses		Result	PQL	Qual	Units	DF Date Analyzed Batch
EPA MET Chloride	HOD 300.0: ANIONS	490	30		mg/Kg	Analyst: LGT 20 11/22/2016 7:55:40 PM 28796

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
D		Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded		Analyte detected below quantitation limits Dogo 5 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range Page 5 of 7
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S		% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis	s Labora	tory, Inc.		Analytical Report Lab Order 1611A10 Date Reported: 11/30/2	2016
CLIENT: Yates Petroleum Corporation			Client Samp	ole ID: CR-45'	
Project: Lusk AHB-Belco Water Line			Collection	Date: 11/16/2016 2:39:00 PM	
Lab ID: 1611A10-006	Matrix:	SOIL	Received	Date: 11/18/2016 9:30:00 AM	
Analyses	Result	PQL Qua	ıl Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: LGT
Chloride	500	30	mg/Kg	20 11/22/2016 8:08:04 PM	A 28796

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S		% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

## QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A10 30-Nov-16

Client: Project:		Petroleum Corp AHB-Belco Wat							
	MB-28796 SampType: MBLK TestCode: EPA Method 300.0: Anions								
	PBS	Batch IL	): 28796	н	RunNo: 38922				
Prep Date:	11/21/2016	Analysis Date	e: 11/22/2016	S	SeqNo: 121648	I Units:	mg/Kg		
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC Lowl	imit HighL	imit %RPD.	RPDLimit	Qual
Chloride		ND	1.5						
Sample ID	LCS-28796	SampType	e: LCS	Tes	tCode: EPA Me	thod 300.0: /	Anions		
Client ID:	LCSS	Batch ID	): 28796	F	RunNo: 38922				
Prep Date:	11/21/2016	Analysis Date	e: 11/22/2016	5	SeqNo: 121648	2 Units:	mg/Kg		
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC Lowl	imit HighL	imit %RPD.	RPDLimit	Qual
Chloride		14	1.5 15.00	0	93.6	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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 7 of 7

Released to Imaging: 10/28/2022 7:52:02 AM

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analysis 4901 Albuquerque TEL: 505-345-3975 FAX: 50 Website: www.hallenviron	Hawkins NE 2, NM 87109 05-345-4107	Samp	ole Log-In Ch	eck List
Client Name: EOG/Yates W	/ork Order Number: 1611A	10		ReptNo: 1	
Received by/date/	ilistic	• •			
	8/2016 9:30:00 AM	A	F		
	18/2016 12:12:59 PM	A	R		
Reviewed By: R AG	11/15/14	54	6		
Chain of Custody	<u>. 110 // (</u>				
1. Custody seals intact on sample bottles?	Yes		No 🗌	Not Present	
2. Is Chain of Custody complete?	Yes		No []]	Not Present	
3. How was the sample delivered?	Couri	ier			
Log In					
4. Was an attempt made to cool the samples?	Yes		No 🗀	NA	
5. Were all samples received at a temperature of >		) Not required	No 🗹	NA []	
6. Sample(s) in proper container(s)?	<u>i</u> Yes		No 🗌		
7. Sufficient sample volume for indicated test(s)?	Yes		No []		
8. Are samples (except VOA and ONG) properly pro-			No 🗌		
9. Was preservative added to bottles?	Yes		No 🗹	NA	
10.VOA vials have zero headspace?	Yes		No 🗌	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	(=)	No 🗹		
12.Does paperwork match bottle labels?	Yes		No 🗌	# of preserved bottles checked for pH:	
(Note discrepancies on chain of custody)		1.1		(<2 or Adjusted?	>12 unless noted)
13. Are matrices correctly identified on Chain of Cus			No L.	Adjusteur	
14. Is it clear what analyses were requested? 15. Were all holding times able to be met?	Yes Yes		No [] No []	Checked by:	
(If no, notify customer for authorization.)					
16. Was client notified of all discrepancies with this	order? Yes		No 🗌	NA 🗹	
Person Notified:	Date	kaning and an an	unik Reistrik seine		
By Whom:	Via: [] eMi	all 📋 Phone	e [_] Fax	In Person	
Regarding:	aran ya afarika da aka da gata parangan anan anan anan ana			ageneration and an	
Client Instructions:				and the second structure of the se	
17. Additional remarks:					
18. <u>Cooler Information</u>		274-15	s .		
Cooler No         Temp °C         Condition         Seal I           1         15.0         Good         Yes	ntact Seal No Seal D	ate Sig	ned By		140 S

Page 1 of 1

Mailing Address:     A standart     Nusk AHB-Beloo Water Line       105 South 4th Street Artesia, NM 88210     Project Manager:       105 South 4th Street Artesia, NM 88210     Project Manager:       Phone #:     575-703-6537     Project Manager:       CACC Package:     D Level 4 (Full Validation)     Project Manager:       CACC Package:     D Level 4 (Full Validation)     Project Manager:       CACC Package:     D Level 4 (Full Validation)     PO # 205, 0750       Accreditation:     Sampler:     Chase Settle       Date     Time     Matrix     Sampler:       Date     Time     Matrix     Sampler:     Proservitive       Date     Time     Matrix     Sampler:     Container     Proservitive       Matrix     Sample Request ID     Type and #     Type     Project       Matrix     Soil     CR-20'     1 - 4oz.     None     -0'       Matrix     Soil     CR-35'     1 - 4oz.     None     -0'       Matrix     Soil     CR-45'     1 - 4oz.	In Rush     In Rush       Rush     Rater Line       K AHB-Belco Water Line     Ber       Ber:     Ber:       Chase Settle     Chase Settle       Po # 205. 0750     Chase Settle       Preservative     HEAL No       None     -0002       None     -0002       None     -0005       None     -0005       None     -0005	ANALSIS       AmB/s       STER + TMB* x (8021)         4001       Hawkins Ni       BTEX + MTBE + TPH (Gas only)         4001       Hawkins Ni       BTEX + MTBE + TPH (Gas only)         4001       Hawkins Ni       Hawkins Ni         4001       Hothod 50(45) (Gas only)       Hothod 50(41)         Abbuquedue       Markins Ni       Hawkins Ni         Abbuquedue       Abbuquedue       Abbuquedue         Abbuquedue       Markins Ni       Abbuquedue         Abbuquedue       Markins Ni       Abbuquedue         Analsis       Abbuquedue       Markins Ni         Abbuquedue       Markins Ni       Abbuquedue         Abbudue       Markins Ni       Markins Ni         Abbudue       Markins Ni       Markins Ni         Abbudue       Markins       Markins	Ref         Ref         (1989)(1/88-0)         Bdf 108 bontiel(i)         H=11           Ref         K         (1.814 bontiel(i))         H9T         Image: Construction of the image: Constructine of the image: Constructine of the image: Constructine	All Sister of the strong of the str	SIS       Maions (F, CI, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )         SIS       Maions (F, CI, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )         Sis       Sis       Sis         Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis         Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis       Sis <th< th=""><th>ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Kitis Nin         ANALYSIS Laboration       <td< th=""></td<></th></th<>	ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Analysis II         ANALYSIS Laboration       Kitis Nin         ANALYSIS Laboration <td< th=""></td<>
Time: Relinquished by: 2:00 Received by: 2:00 Received by: Time: Relinquished by:	Date Time F Erretra 11/18/16 093	Remarks: $\mathcal{R}_{L}$ .	Results	kg pnu		11/29/2016.

•

# Appendix D

Released to Imaging: 10/28/2022 7:52:02 AM

Project Id:

**Project Location:** 

**Contact:** 

eurofins Environment Testing Xenco

212C-MD-0419 TASK:1400

Clair Gonzales

Lea County, NM

## Certificate of Analysis Summary 690614

Tetra Tech- Midland, Midland, TX

Project Name: EOG-Lusk AHB

 Date Received in Lab:
 Fri 03.05.2021 12:41

 Report Date:
 03.15.2021 15:45

Project Manager: Jessica Kramer

	Lab Id:	690614-0	01	690614-0	02	690614-0	003	690614-0	004		
An aluaia Domonatad	Field Id:	AH-1 (0-	1)	AH-1 (1.5'-	-2')	AH-1 (2.5'	3')	AH-1 (3.5'-	4')		
Analysis Requested	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL	,		
	Sampled:	03.01.2021	00:00	03.01.2021	00:00	03.01.2021	00:00	03.01.2021	00:00		
BTEX by EPA 8021B	Extracted:	03.12.2021	12:00	03.12.2021	12:00	03.12.2021	12:00	03.12.2021	12:00		
	Analyzed:	03.12.2021	15:11	03.12.2021	17:14	03.12.2021	17:34	03.12.2021	17:54		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
Toluene		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
Ethylbenzene		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
m,p-Xylenes		< 0.00396	0.00396	< 0.00400	0.00400	< 0.00398	0.00398	< 0.00397	0.00397		
o-Xylene		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
Total Xylenes		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
Total BTEX		< 0.00198	0.00198	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00198	0.00198		
Inorganic Anions by EPA 300/300.1	Extracted:	03.06.2021	14:30	03.06.2021	14:30	03.06.2021	14:30	03.06.2021	14:30		
	Analyzed:	03.06.2021	15:07	03.06.2021	15:12	03.06.2021	15:27	03.06.2021	15:32		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		7.51	5.01	6.98	5.01	6.89	5.00	6.48	5.00		
TPH By SW8015 Mod	Extracted:	03.05.2021 17:00		03.05.2021 17:00		03.05.2021 17:00		03.05.2021 17:00			
	Analyzed:	03.05.2021 23:36		03.06.2021 00:40		03.06.2021 01:02		03.06.2021 01:23			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0		
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0		

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jession Vramer

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eurofins Environment Testing Xenco

# **Analytical Report 690614**

for

**Tetra Tech- Midland** 

**Project Manager: Clair Gonzales** 

## EOG-Lusk AHB 212C-MD-0419 TASK:1400

### 03.15.2021

Collected By: Client



#### 1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins Environment Testing

03.15.2021

Project Manager: **Clair Gonzales Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): 690614 EOG-Lusk AHB Project Address: Lea County, NM

#### Clair Gonzales:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 690614. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 690614 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins Environment Testing Xenco

## Sample Cross Reference 690614

EOG-Lusk AHB

Sample Id	Matrix	Date Collected Sam	ole Depth	Lab Sample Id
AH-1 (0-1)	S	03.01.2021 00:00		690614-001
AH-1 (1.5'-2')	S	03.01.2021 00:00		690614-002
AH-1 (2.5'-3')	S	03.01.2021 00:00		690614-003
AH-1 (3.5'-4')	S	03.01.2021 00:00		690614-004

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## **CASE NARRATIVE**

Client Name: Tetra Tech- Midland Project Name: EOG-Lusk AHB

Project ID: 212C-MD-0419 TASK:1 Work Order Number(s): 690614 Report Date: 03.15.2021 Date Received: 03.05.2021

#### Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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## **Certificate of Analytical Results 690614**

## Tetra Tech- Midland, Midland, TX

EOG-Lusk AHB

Sample Id:         AH-1 (0-1)           Lab Sample Id:         690614-001	Matrix: Date Col	Soil lected: 03.01	.2021 00:00		:41			
Analytical Method: Inorganic Anio Tech: SPC Analyst: SPC	ns by EPA 300/300.	l Date Prej	p: 03.06	.2021 14:30		Prep Method: E30 % Moisture: Basis: Wet	0P Weight	
Seq Number: 3152765						Dasis. Wet	weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.51	5.01		mg/kg	03.06.2021 15:07		1
Analytical Method:TPH By SW80Tech:DVMAnalyst:ARMSeq Number:3152841	15 Mod	Date Prej	p: 03.05	.2021 17:00		Prep Method: SW3 % Moisture: Basis: Wet	8015P Weight	
Tech: DVM Analyst: ARM	15 Mod Cas Number	Date Prej Result	p: 03.05 <b>RL</b>	.2021 17:00		% Moisture:		Dil
Tech: DVM Analyst: ARM Seq Number: 3152841				.2021 17:00		% Moisture: Basis: Wet	Weight	<b>Dil</b>
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter	Cas Number	Result	RL	.2021 17:00	Units	% Moisture: Basis: Wet Analysis Date	Weight Flag	
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result <50.0	RL 50.0	.2021 17:00	Units mg/kg	% Moisture: Basis: Wet Analysis Date 03.05.2021 23:36	Weight Flag U	1
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <50.0 <50.0	<b>RL</b> 50.0 50.0	.2021 17:00	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 03.05.2021 23:36 03.05.2021 23:36	Weight Flag U U	1
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0	.2021 17:00 Units	Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet <u>Analysis Date</u> 03.05.2021 23:36 03.05.2021 23:36 03.05.2021 23:36 03.05.2021 23:36	Weight Flag U U U	1 1 1
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)Motor Oil Range Hydrocarbons (MRO)Total TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC635 Cas	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0 50.0		Units mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 03.05.2021 23:36 03.05.2021 23:36 03.05.2021 23:36 03.05.2021 23:36 Mnalysis Date	Weight Flag U U U U U Flag	1 1 1

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#### Tetra Tech- Midland, Midland, TX EOG-Lusk AHB

Sample Id: AH-1 (0-1) Matrix: Soil Date Received:03.05.2021 12:41 Lab Sample Id: 690614-001 Date Collected: 03.01.2021 00:00 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A Tech: KTL % Moisture: Analyst: KTL Date Prep: 03.12.2021 12:00 Basis: Wet Weight Seq Number: 3153519

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	03.12.2021 15:11	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	03.12.2021 15:11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	03.12.2021 15:11		
4-Bromofluorobenzene		460-00-4	98	%	70-130	03.12.2021 15:11		

# Tetra Tech- Midland, Midland, TX

EOG-Lusk AHB

Sample Id:         AH-1 (1.5'-2')           Lab Sample Id:         690614-002		Matrix: Date Coll	Soil ected: 03.01.2	2021 00:00		Date Received:03.05.2021 12:41			
Analytical Method:Inorganic AnioTech:SPCAnalyst:SPCSeq Number:3152765	ns by EPA 300/300.1	Date Prep	: 03.06.2	2021 14:30		Prep Method: E300 % Moisture: Basis: Wet	)P Weight		
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	6.98	5.01		mg/kg	03.06.2021 15:12		1	
Analytical Method: TPH By SW80 Tech: DVM	15 Mod					Prep Method: SW8	8015P		
Tech: DVM Analyst: ARM Seq Number: 3152841		Date Prep	: 03.05.2	2021 17:00		% Moisture: Basis: Wet	Weight		
Analyst: ARM	Cas Number	Date Prep Result	: 03.05.2 RL	2021 17:00	Units		Weight Flag	Dil	
Analyst: ARM Seq Number: 3152841	Cas Number PHC610			2021 17:00		Basis: Wet	C	<b>Dil</b>	
Analyst: ARM Seq Number: 3152841 Parameter		Result	RL	2021 17:00	Units	Basis: Wet Analysis Date	Flag		
Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO)	PHC610	Result <50.0	<b>RL</b> 50.0	2021 17:00	Units mg/kg	Basis: Wet Analysis Date 03.06.2021 00:40	Flag U	1	
Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	PHC610 C10C28DRO	<b>Result</b> <50.0 <50.0	<b>RL</b> 50.0 50.0	2021 17:00	Units mg/kg mg/kg	Basis: Wet Analysis Date 03.06.2021 00:40 03.06.2021 00:40	Flag U U	1	
Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	PHC610 C10C28DRO PHCG2835 PHC635	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0	2021 17:00 Units	Units mg/kg mg/kg mg/kg	Basis: Wet Analysis Date 03.06.2021 00:40 03.06.2021 00:40 03.06.2021 00:40 03.06.2021 00:40	Flag U U U	1 1 1	
Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total TPH	PHC610 C10C28DRO PHCG2835 PHC635 <b>Cas</b>	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0 50.0		Units mg/kg mg/kg mg/kg mg/kg	Basis: Wet Analysis Date 03.06.2021 00:40 03.06.2021 00:40 03.06.2021 00:40 Analysis Date 03.06.2021 00:40	Flag U U U U	1 1 1	

### Tetra Tech- Midland, Midland, TX EOG-Lusk AHB

Sample Id: AH-1 (1.5 Lab Sample Id: 690614-00	·	Matrix: Date Col	Soil lected: 03.01.2021 00:	00	Date Received:03.05.202		
Analytical Method: BTEX	X by EPA 8021B				Prep Method:	SW5035A	
Tech: KTL Analyst: KTL			02 12 2021 12	00	% Moisture:		
Analyst: KTL Seq Number: 3153519		Date Pre	p: 03.12.2021 12:	00	Basis:	Wet Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Dat	ie Flag	Dil
Panzana	71 42 2	<0.00200	0.00200	malka	02 12 2021 17:	14 II	1

Benzene	71-43-2	< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
Toluene	108-88-3	< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
Ethylbenzene	100-41-4	< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
m,p-Xylenes	179601-23-1	< 0.0040	0 0.00400		mg/kg	03.12.2021 17:14	U	1
o-Xylene	95-47-6	< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
Total Xylenes	1330-20-7	< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
Total BTEX		< 0.0020	0 0.00200		mg/kg	03.12.2021 17:14	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	03.12.2021 17:14		
1,4-Difluorobenzene		540-36-3	99	%	70-130	03.12.2021 17:14		

# Tetra Tech- Midland, Midland, TX

EOG-Lusk AHB

Sample Id:         AH-1 (2.5'-3')           Lab Sample Id:         690614-003		Matrix: Date Coll	Soil lected: 03.01	.2021 00:00		Date Received:03.05.2021 12:41			
Analytical Method:Inorganic AnioTech:SPCAnalyst:SPCSeq Number:3152765	ns by EPA 300/300.1	Date Prep	p: 03.06	.2021 14:30		Prep Method: E300 % Moisture: Basis: Wet	)P Weight		
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	6.89	5.00		mg/kg	03.06.2021 15:27		1	
Analytical Method:TPH By SW80Tech:DVMAnalyst:ARMSeq Number:3152841	15 Mod	Date Prep	o: 03.05	.2021 17:00		Prep Method: SW8 % Moisture: Basis: Wet	8015P Weight		
Tech: DVM Analyst: ARM	15 Mod Cas Number	Date Prep Result	p: 03.05 RL	.2021 17:00		% Moisture:		Dil	
Tech: DVM Analyst: ARM Seq Number: 3152841				.2021 17:00		% Moisture: Basis: Wet	Weight	<b>Dil</b>	
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter	Cas Number	Result	RL	.2021 17:00	Units	% Moisture: Basis: Wet Analysis Date	Weight Flag		
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result <49.9	<b>RL</b> 49.9	.2021 17:00	Units mg/kg	% Moisture: Basis: Wet Analysis Date 03.06.2021 01:02	Weight Flag U	1	
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <49.9 <49.9	<b>RL</b> 49.9 49.9	.2021 17:00	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 03.06.2021 01:02 03.06.2021 01:02	Weight Flag U U	1 1	
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	<b>Cas Number</b> PHC610 C10C28DRO PHCG2835 PHC635	<b>Result</b> <49.9 <49.9 <49.9 <49.9 <49.9 <49.9	<b>RL</b> 49.9 49.9 49.9	.2021 17:00 Units	Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 03.06.2021 01:02 03.06.2021 01:02 03.06.2021 01:02 03.06.2021 01:02	Weight Flag U U U	1 1 1	
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)Motor Oil Range Hydrocarbons (MRO)Total TPH	<b>Cas Number</b> PHC610 C10C28DRO PHCG2835 PHC635	Result           <49.9	<b>RL</b> 49.9 49.9 49.9 49.9		Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 03.06.2021 01:02 03.06.2021 01:02 03.06.2021 01:02 03.06.2021 01:02 3.06.2021 01:02	Weight Flag U U U U	1 1 1	

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# **Certificate of Analytical Results 690614**

#### **Tetra Tech- Midland, Midland, TX** EOG-Lusk AHB

Sample Id: Lab Sample Id	<b>AH-1</b> ( <b>2.5'-3'</b> ) l: 690614-003	Matrix: Date Co	Soil llected: 03.01.2021 00:00		Date Received:03.05.2021 12:41				
Analytical Me	thod: BTEX by EPA 8	021B				Prep Method: SW	5035A		
Tech:	KTL								
Analyst:	KTL		Date Pre	p: 03.12.2021 12:00		% Moisture: Basis: Wet	Weight		
Seq Number:	3153519					Dasis. wei	Weight		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Benzene		71-43-2	< 0.00199	0.00199	mg/kg	03.12.2021 17:34	U	1	
Toluene		108-88-3	< 0.00199	0.00199	mg/kg	03.12.2021 17:34	U	1	

Toluene	108-88-3	< 0.00199	0.00199		mg/kg	03.12.2021 17:34	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	03.12.2021 17:34	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	03.12.2021 17:34	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	03.12.2021 17:34	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	03.12.2021 17:34	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	03.12.2021 17:34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	03.12.2021 17:34		
4-Bromofluorobenzene		460-00-4	98	%	70-130	03.12.2021 17:34		

# Tetra Tech- Midland, Midland, TX

EOG-Lusk AHB

Sample Id:         AH-1 (3.5'-4')           Lab Sample Id:         690614-004		Matrix: Date Colle	Soil ected: 03.01	.2021 00:00		Date Received:03.05.2021 12:41			
Analytical Method:Inorganic AnioTech:SPCAnalyst:SPCSeq Number:3152765	ns by EPA 300/300.1	Date Prep:	03.06	.2021 14:30		Prep Method: E30 % Moisture: Basis: We	00P t Weight		
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	6.48	5.00		mg/kg	03.06.2021 15:32		1	
Analytical Method:TPH By SW80Tech:DVMAnalyst:ARMSeq Number:3152841	15 Mod	Date Prep:	03.05	.2021 17:00		Prep Method: SW % Moisture: Basis: We	78015P t Weight		
Tech: DVM Analyst: ARM	15 Mod Cas Number	Date Prep: Result	03.05 RL	.2021 17:00	Units	% Moisture:		Dil	
Tech:DVMAnalyst:ARMSeq Number:3152841				.2021 17:00	Units mg/kg	% Moisture: Basis: We	t Weight	<b>Dil</b> 1	
Tech: DVM Analyst: ARM Seq Number: 3152841 Parameter	Cas Number	Result	RL	.2021 17:00		% Moisture: Basis: We Analysis Date	t Weight Flag		
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result <50.0	<b>RL</b> 50.0	.2021 17:00	mg/kg	% Moisture: Basis: We Analysis Date 03.06.2021 01:23	t Weight Flag U	1	
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <50.0 <50.0	<b>RL</b> 50.0 50.0	.2021 17:00	mg/kg mg/kg	% Moisture: Basis: We Analysis Date 03.06.2021 01:23 03.06.2021 01:23	t Weight Flag U U	1 1	
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0	.2021 17:00	mg/kg mg/kg mg/kg	% Moisture: Basis: We Analysis Date 03.06.2021 01:23 03.06.2021 01:23 03.06.2021 01:23 03.06.2021 01:23	t Weight Flag U U U U U	1 1 1	
Tech:DVMAnalyst:ARMSeq Number:3152841ParameterGasoline Range Hydrocarbons (GRO)Diesel Range Organics (DRO)Motor Oil Range Hydrocarbons (MRO)Total TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC635 Cas	<b>Result</b> <50.0 <50.0 <50.0 <50.0 <50.0	<b>RL</b> 50.0 50.0 50.0 50.0 50.0		mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: We Analysis Date 03.06.2021 01:23 03.06.2021 01:23 03.06.2021 01:23 03.06.2021 01:23 03.06.2021 01:23 c Analysis Date	t Weight Flag U U U U Flag	1 1 1	

### Tetra Tech- Midland, Midland, TX EOG-Lusk AHB

Sample Id: AH-1 (3.5'-4') Lab Sample Id: 690614-004		Matrix: Date Col	Soil lected: 03.01.2021 00	:00	Date Received:03.05.2021 12:41			
Analytical Method: BTEX by El	PA 8021B				Prep Method: SW	5035A		
Tech:KTLAnalyst:KTLSeq Number:3153519		Date Pre	p: 03.12.2021 12	:00	% Moisture: Basis: Wet	Weight		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Benzene	71-43-2	< 0.00198	0.00198	mg/kg	03.12.2021 17:54	U	1	
TT 1	100 00 2	.0.00100	0.00100	а	02 12 2021 17 54		1	

То	luene	108-88-3	< 0.00198	0.00198		mg/kg	03.12.2021 17:54	II	1	
						00		U	1	
Etl	hylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	03.12.2021 17:54	U	1	
m,	p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	03.12.2021 17:54	U	1	
o-2	Xylene	95-47-6	< 0.00198	0.00198		mg/kg	03.12.2021 17:54	U	1	
То	tal Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	03.12.2021 17:54	U	1	
То	tal BTEX		<0.00198	0.00198		mg/kg	03.12.2021 17:54	U	1	
	Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
	4-Bromofluorobenzene		460-00-4	105	%	70-130	03.12.2021 17:54			
	1,4-Difluorobenzene		540-36-3	98	%	70-130	03.12.2021 17:54			

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# **Flagging Criteria**

- and a start of the data of the second and the second as a start MCMCD as second as the based of the second se
- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.	ND Not Detected			
<b>RL</b> Reporting Limit				
MDL Method Detection Limit	SDL Sample De	tection Limit	LOD Limit of Detection	
PQL Practical Quantitation Limit	MQL Method Qu	antitation Limit	LOQ Limit of Quantitatio	n
DL Method Detection Limit				
NC Non-Calculable				
SMP Client Sample		BLK	Method Blank	
BKS/LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory Control Sample Duplicate
MD/SD Method Duplicate/Samp	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NELAC certification not offered	for this compound.			

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

#### Received by OCD: 10/14/2021 3:37:11 PM

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**Environment Testing** 

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**QC Summary** 690614

#### **Tetra Tech- Midland** EOG-Lusk AHB

<b>Analytical Method:</b> Seq Number:	3152765	oy EPA 300		Matrix:	Solid 7722685-				rep Metho Date Pro	ep: 03.0	00P 06.2021 2685-1-BSD	
MB Sample Id:	7722685-1-BLK MB	Spike		LCS			Limits	%RPD	RPD	Units	Analysis	
Parameter	Result	Amount	Result	%Rec	LCSD Result	LCSD %Rec	Linnts	70 <b>KF D</b>	Limit	Omts	Date	Flag
Chloride	<5.00	250	251	100	251	100	90-110	0	20	mg/kg	03.06.2021 14:32	
Analytical Method:	Inorganic Anions l	oy EPA 300	/300.1					P	rep Metho	od: E30	00P	
Seq Number:	3152765			Matrix:					Date Pr	-	06.2021	
Parent Sample Id:	690433-008		MS Sai	nple Id:	690433-0	08 S		MS	-	e Id: 690	433-008 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	117	248	361	98	361	98	90-110	0	20	mg/kg	03.06.2021 14:47	
		ED 4 200	/200 1					D	Ma	1 520		
Analytical Method: Seq Number:	3152765	DY EPA 300		Matrix:	Soil			P	rep Metho Date Pro		0P 06.2021	
Parent Sample Id:	690616-004				690616-0	04 S		MS		-	616-004 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.23	250	262	102	262	102	90-110	0	20	mg/kg	03.06.2021 15:57	
Analytical Method:	TPH By SW8015 M	Aod						P	rep Metho	od: SW	8015P	
Seq Number:	3152841	204		Matrix:	Solid			-	Date Pro		05.2021	
MB Sample Id:	7722739-1-BLK		LCS Sar	nple Id:	7722739-	1-BKS		LCS	D Sample	e Id: 772	2739-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb		1000	1080	108	1140	114	70-130	5	20	mg/kg	03.05.2021 22:53	
Diesel Range Organics	(DRO) <50.0	1000	930	93	958	96	70-130	3	20	mg/kg	03.05.2021 22:53	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1-Chlorooctane	82		9	90		94		70	-130	%	03.05.2021 22:53	
o-Terphenyl	74		:	86		87		70	-130	%	03.05.2021 22:53	
Analytical Method: Seq Number:	<b>TPH By SW8015 M</b> 3152841	Иod		Matrix: nple Id:	Solid 7722739-	1-BLK		P	rep Metho Date Pro		8015P )5.2021	
Parameter			МВ							Units	Analysis	Flag
Motor Oil Range Hydrocar	bons (MRO)		<b>Result</b> <50.0							mg/kg	Date 03.05.2021 22:31	5
										00		

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

[D] = 100\*(C-A) / B $\begin{array}{l} \text{[D]} & = 100^{+} \left[ (\text{C-E}) / (\text{C+E}) \right] \\ \text{[D]} & = 100^{+} (\text{C}) / [\text{B}] \\ \text{Log Diff.} & = \text{Log(Sample Duplicate)} - \text{Log(Original Sample)} \end{array}$  LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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Final 1.000
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#### Received by OCD: 10/14/2021 3:37:11 PM

Xenco

🔅 eurofins

**QC Summary** 690614

Prep Method: SW8015P

#### **Tetra Tech- Midland** EOG-Lusk AHB

**Environment Testing** 

Seq Number:	3152841			]	Matrix:	Soil				Date Pr	ep: 03.0	5.2021	
Parent Sample Id:	690614-00	1		MS San	nple Id:	690614-00	01 S		MS	D Sample	e Id: 690	614-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocar	bons (GRO)	<49.9	997	1090	109	1120	112	70-130	3	20	mg/kg	03.05.2021 23:58	
Diesel Range Organics	(DRO)	<49.9	997	938	94	974	98	70-130	4	20	mg/kg	03.05.2021 23:58	
Surrogate					IS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1-Chlorooctane				8	39		92		70	-130	%	03.05.2021 23:58	
o-Terphenyl				8	32		84		70	-130	%	03.05.2021 23:58	

Analytical Method:	BTEX by EPA 8021	B						P	rep Meth	od: SW	5035A	
Seq Number:	3153519		]	Matrix:	Solid				Date Pr	ep: 03.1	12.2021	
MB Sample Id:	7723198-1-BLK		LCS San	nple Id:	7723198-1	I-BKS		LCS	D Sample	e Id: 772	3198-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0924	92	0.0920	92	70-130	0	35	mg/kg	03.12.2021 12:49	
Toluene	< 0.00200	0.100	0.0883	88	0.0886	89	70-130	0	35	mg/kg	03.12.2021 12:49	
Ethylbenzene	< 0.00200	0.100	0.0882	88	0.0884	88	70-130	0	35	mg/kg	03.12.2021 12:49	
m,p-Xylenes	< 0.00400	0.200	0.179	90	0.179	90	70-130	0	35	mg/kg	03.12.2021 12:49	
o-Xylene	< 0.00200	0.100	0.0995	100	0.0960	96	70-130	4	35	mg/kg	03.12.2021 12:49	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	93		1	02		103		70	-130	%	03.12.2021 12:49	
4-Bromofluorobenzene	92		9	95		97		70	-130	%	03.12.2021 12:49	

Analytical Method:	BTEX by EPA 8021	B						Pı	rep Method	: SW	5035A	
Seq Number:	3153519			Matrix:	Soil				Date Prep	: 03.	12.2021	
Parent Sample Id:	690614-001		MS Sar	nple Id:	690614-00	01 S		MS	D Sample	d: 690	614-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0996	0.0774	78	0.0827	83	70-130	7	35	mg/kg	03.12.2021 13:30	
Toluene	< 0.00199	0.0996	0.0742	74	0.0789	79	70-130	6	35	mg/kg	03.12.2021 13:30	
Ethylbenzene	< 0.00199	0.0996	0.0739	74	0.0792	80	70-130	7	35	mg/kg	03.12.2021 13:30	
m,p-Xylenes	< 0.00398	0.199	0.149	75	0.160	80	70-130	7	35	mg/kg	03.12.2021 13:30	
o-Xylene	< 0.00199	0.0996	0.0790	79	0.0845	85	70-130	7	35	mg/kg	03.12.2021 13:30	
Surrogate				1S Rec	MS Flag	MSD %Ree			imits	Units	Analysis Date	
1,4-Difluorobenzene			1	02		104		70	-130	%	03.12.2021 13:30	

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

4-Bromofluorobenzene

[D] = 100\*(C-A) / B LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result

97

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

.

03.12.2021 13:30

98

70-130

%

### *Received by OCD: 10/14/2021 3:37:11 PM*

	iquistied by:		nquished by:	har	Iquished by:								13 USE	LAB #		iments:	∍iving Laboratory:	ice to:	∍ct Location: nty, state)	ect Name:	it Name:	<b>F</b>	
	Date: Time:		Date: Time:		Date: Time:				AH-1 (3.5'-4')	AH-1 (2.5'-3')	AH-1 (1.5'-2')	AH-1 (0-1')		SAMPLE IDENTIFICATION	· · · · · · · · · · · · · · · · · · ·		Xenco .	James Kennedy	Lea County, NM	Lusk AHB	EOG	Tetra Tech, Inc.	-
ORIGINAL COPY	Received by:	(	Rebeived by:	VILAN	A Berdived hv:				03/01/21	03/01/21	03/01/21	03/01/21	DATE TIME	YEAR: 2020	SAMPLING		Sampler Signature:		Project #:	Contact Info:	Site Manager:		
~	Date: Time:		Date: 10041	Helske 70W					X X 1	X X 1	X X 1		WATER SOIL HCL HNO <sub>3</sub> ICE NONE # CONT	AINE			Devin. Dominguez	,	212C-MD-02419 Task: 1400		Clair Gonzalez	901 West Wall Street, Suite 100 Midland, Texas 79701 Tel (432) 682-4559 Fax (432) 682-3946	
(Circle) (HAND DELIVERED	0.6/	/ <u>S</u> ·/	Sample Temperature	LAB USE ONLY					2 X X	z × ×	z × ×	×××	FILTERI BTEX 80 TPH TX1 TPH 801 PAH 827 Total Met TCLP Me	21B 005 (E 5M ( C 0C als Ag	BTEX Ext to CC ARO - D	35) RO - ORO Cd Cr Pb	Se Hg	))			(Cirol		40614
ERED FEDEX UPS Tracking	Special Report Limits or TRRP Report	Rush Charges Authorized	X RUSH: Same Day 24 hr.	Standard									TCLP Vol TCLP Ser RCI GC/MS V GC/MS S PCB'S 80 NORM PLM (Asb	ni Vola ol. 820 emi. V 82 / 60	60B/62 ol. 827(						ANALYSIS REQUEST		τ
king #:	r TRRP Report	ed	4 hr. 48 hr. 12 hr.			-			×	×	×	× (	Chloride 3 Chloride General W Anion/Cat FPH 8015	00.0 Sulfa /ater C ion Ba	Chemistr		tached li	ist)			ST No Y		Page: <u>1 of 1</u>

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### **Eurofins Xenco, LLC**

### Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland	Acceptable Temperature Range: 0 - 6 degC
Date/ Time Received: 03.05.2021 12.41.00 PM	Air and Metal samples Acceptable Range: Ambient
Work Order #: 690614	Temperature Measuring device used : IR8
Sample Recei	pt Checklist Comments
#1 *Temperature of cooler(s)?	2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

#### \* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 03.05.2021

Checklist reviewed by: Jession Veramer

Jessica Kramer

Date: 03.08.2021

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

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	56138
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
bhall	None	10/28/2022

CONDITIONS

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Action 56138