

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S.P. YATES
1914-2008



JOHN A. YATES SR.
CHAIRMAN EMERITUS

JOHN A. YATES JR.
CHAIRMAN OF THE BOARD

DOUGLAS E. BROOKS
PRESIDENT / CEO

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (575) 748-1471

June 3, 2016

Mr. Jamie Keyes
NMOCD District I
1625 N. French Dr.
Hobbs, NM 88240

RECEIVED

By JKeyes at 7:15 am, Jun 06, 2016

Conditionally

APPROVED

RE: Lusk AHB Federal #10H
30-025-40990
Section 35, T19S-R32E
Lea County, New Mexico

Provide sidewall samples to ensure the horizontal
extent of contamination is defined.

Mr. Keyes,

Yates Petroleum Corporation (Yates) would like to submit the attached plan of work to you regarding the release that occurred at the above mentioned facility on April 21, 2016 (1RP-4266).

With NMOCD and BLM approval of this work plan, Yates will hold a bid meeting allowing several contractors the opportunity to submit bids on this remediation project. Bids that are received will be forwarded to Yates Management for review. Once Yates Management reviews the bids and gives approval, the remediation project will be awarded to a contractor for work to commence.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at agriffin@yatespetroleum.com.

Thank You,

Amber Griffin
Environmental Representative
Yates Petroleum Corporation



Yates Petroleum Corporation

Lusk AHB Federal #10H Work Plan

Section 35, T19S-R32E

Lea County, New Mexico

June 3, 2016

I. Location

The well is located approximately 11.4 miles south of State Road 529 on County Road 126A and approximately 6.3 miles east of County Road 126A via various lease roads.

II. Background

On April 21, 2016, Yates had a release of 175 barrels produced water and 25 barrels of crude oil, with 150 barrels produced water and 25 barrels of crude oil recovered. The area affected from this release was on the southeast and east side of the production pad/battery. Vegetation and grasses that were affected by overspray from the release were treated with a Micro-Blaze/Water mixture. An initial scrape of 6" – 1' was completed of the pooling area.

An initial Form C-141 was submitted, via e-mail, to the NMOCD District I office on April 28, 2016 for this release.

On April 26, 2016 personnel returned to the release area and collected soil samples from the release area using a hand auger. Four initial samples were taken at 1' below the surface level. One sample was collected from the pooling area and three were collected from overspray areas of the release. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on May 6, 2016 (Report 1604C22 attached to this work plan). The analytical results showed that both BTEX and TPH were at levels below NMOCD RRAL's for all four samples. The three overspray area samples showed that chlorides were at non-detectable levels, and the pooling area showed elevated chloride levels.

On May 4, 2016 personnel returned to the release area and collected further soil samples from the pooling area at depths of 2', 3', 4', 5', 6', 7', 8', 9' and 10' below the surface level. The soil samples were sent to an approved NMOCD laboratory and tested for Chlorides 300.0. Yates received the analytical results on May 13, 2016 (Report 1605293 attached to this work plan). The analytical results showed that Yates had successfully delineated the chlorides within the pooling area.

A new Google Earth image (site diagram) has been attached to this work plan. One was originally submitted with the Initial C-141, but after sampling was conducted it was determined that the actual pooling area of the release was smaller than originally believed. The pooling area was confined to the low lying area between the surrounding sand dunes.

III. Surface and Ground Water

Area surface geology is Cenozoic. The ChevronTexaco depth to ground water map shows the depth to groundwater to be approximately 250 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 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, interspersed with caliche and clay seams.

V. Scope of Work

Based off the analytical reports which show complete vertical delineation, Yates proposes the following work:

- Pooling Area:
 - Excavate 4' from the pooling area of the release area.
 - Lay a 20 mil liner in the bottom of the excavation.
 - The excavation will be backfilled with caliche and other clean, like soils.
 - Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.
 - The release area will be re-seeded with BLM LPC Seed Mix.
- Overspray Areas:
 - Apply a second treatment of a 3% Micro-Blaze/Water mixture.
- Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD and BLM requesting closure of this release.



Google earth

feet 500
meters 100



Lusk AHB Federal #10H

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Overspray 1-1'	Release area	4/26/2016	1604C22	Grab/Hand Auger	1'	ND	ND	ND	ND	ND
Overspray 2-1'	Release area	4/26/2016	1604C22	Grab/Hand Auger	1'	ND	ND	ND	ND	ND
Overspray 3-1'	Release area	4/26/2016	1604C22	Grab/Hand Auger	1'	ND	ND	ND	ND	ND
Pooling 1-1'	Release area	4/26/2016	1604C22	Grab/Hand Auger	1'	ND	ND	ND	ND	6,700
Pooling 1-2'	Release area	5/4/2016	1605293	Grab/Backhoe	2'	-	-	-	-	3,300
Pooling 1-3'	Release area	5/4/2016	1605293	Grab/Backhoe	3'	-	-	-	-	4,400
Pooling 1-4'	Release area	5/4/2016	1605293	Grab/Backhoe	4'	-	-	-	-	8,300
Pooling 1-5'	Release area	5/4/2016	1605293	Grab/Backhoe	5'	-	-	-	-	4,000
Pooling 1-6'	Release area	5/4/2016	1605293	Grab/Backhoe	6'	-	-	-	-	4,800
Pooling 1-7'	Release area	5/4/2016	1605293	Grab/Backhoe	7'	-	-	-	-	2,300
Pooling 1-8'	Release area	5/4/2016	1605293	Grab/Backhoe	8'	-	-	-	-	1,400
Pooling 1-9'	Release area	5/4/2016	1605293	Grab/Backhoe	9'	-	-	-	-	540
Pooling 1-10'	Release area	5/4/2016	1605293	Grab/Backhoe	10'	-	-	-	-	61

Site Ranking is ZERO (0). Depth to Ground Water >100' (approx. 250', per ChevronTexaco trend map).

All results are ppm.Chlorides for documentation.

Released: 175 B/PW, 25 B/O; Recovered: 150 B/PW, 25 B/O. Release Date: 4/21/2016, 1RP-4266



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

May 06, 2016

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

RE: Lusk AHB Federal #10H

OrderNo.: 1604C22

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/28/2016 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1604C22

Date Reported: 5/6/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** Overspray 1-1'**Project:** Lusk AHB Federal #10H**Collection Date:** 4/26/2016 7:40:00 AM**Lab ID:** 1604C22-001**Matrix:** SOIL**Received Date:** 4/28/2016 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/2/2016 11:35:59 AM	25074
Surr: DNOP	88.3	70-130		%Rec	1	5/2/2016 11:35:59 AM	25074
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/29/2016 9:33:58 PM	25062
Surr: BFB	97.3	80-120		%Rec	1	4/29/2016 9:33:58 PM	25062
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2016 9:33:58 PM	25062
Toluene	ND	0.049		mg/Kg	1	4/29/2016 9:33:58 PM	25062
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2016 9:33:58 PM	25062
Xylenes, Total	ND	0.098		mg/Kg	1	4/29/2016 9:33:58 PM	25062
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	4/29/2016 9:33:58 PM	25062

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	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 1604C22

Date Reported: 5/6/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Overspray 2-1'

Project: Lusk AHB Federal #10H

Collection Date: 4/26/2016 8:00:00 AM

Lab ID: 1604C22-002

Matrix: SOIL

Received Date: 4/28/2016 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/2/2016 11:57:38 AM	25074
Surr: DNOP	89.8	70-130		%Rec	1	5/2/2016 11:57:38 AM	25074
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/29/2016 9:57:38 PM	25062
Surr: BFB	98.7	80-120		%Rec	1	4/29/2016 9:57:38 PM	25062
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2016 9:57:38 PM	25062
Toluene	ND	0.048		mg/Kg	1	4/29/2016 9:57:38 PM	25062
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2016 9:57:38 PM	25062
Xylenes, Total	ND	0.096		mg/Kg	1	4/29/2016 9:57:38 PM	25062
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	4/29/2016 9:57:38 PM	25062

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	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 Laboratory, Inc.

Analytical Report

Lab Order 1604C22

Date Reported: 5/6/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: Overspray 3-1'

Project: Lusk AHB Federal #10H

Collection Date: 4/26/2016 8:20:00 AM

Lab ID: 1604C22-003

Matrix: SOIL

Received Date: 4/28/2016 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/2/2016 12:19:07 PM	25074
Surr: DNOP	91.8	70-130		%Rec	1	5/2/2016 12:19:07 PM	25074
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/29/2016 10:21:10 PM	25062
Surr: BFB	96.7	80-120		%Rec	1	4/29/2016 10:21:10 PM	25062
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2016 10:21:10 PM	25062
Toluene	ND	0.049		mg/Kg	1	4/29/2016 10:21:10 PM	25062
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2016 10:21:10 PM	25062
Xylenes, Total	ND	0.097		mg/Kg	1	4/29/2016 10:21:10 PM	25062
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	4/29/2016 10:21:10 PM	25062

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	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 Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: Pooling 1-1'

Project: Lusk AHB Federal #10H

Collection Date: 4/26/2016 9:00:00 AM

Lab ID: 1604C22-004

Matrix: SOIL

Received Date: 4/28/2016 9:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/2/2016 12:40:43 PM	25074
Surr: DNOP	90.0	70-130		%Rec	1	5/2/2016 12:40:43 PM	25074
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/29/2016 10:44:36 PM	25062
Surr: BFB	97.3	80-120		%Rec	1	4/29/2016 10:44:36 PM	25062
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	4/29/2016 10:44:36 PM	25062
Toluene	ND	0.049		mg/Kg	1	4/29/2016 10:44:36 PM	25062
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2016 10:44:36 PM	25062
Xylenes, Total	ND	0.097		mg/Kg	1	4/29/2016 10:44:36 PM	25062
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	4/29/2016 10:44:36 PM	25062

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	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#: 1604C22

06-May-16

Client: Yates Petroleum Corporation

Project: Lusk AHB Federal #10H

Sample ID	LCS-25074		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25074		RunNo: 33916					
Prep Date:	4/29/2016		Analysis Date: 5/2/2016		SeqNo: 1044743		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.9	65.8	136			
Surr: DNOP	4.3		5.000		85.1	70	130			

Sample ID	MB-25074		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25074		RunNo:	33916				
Prep Date:	4/29/2016		Analysis Date:	5/2/2016		SeqNo:	1044744		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	8.8		10.00		88.3	70	130				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P 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#: 1604C22

06-May-16

Client: Yates Petroleum Corporation

Project: Lusk AHB Federal #10H

Sample ID	MB-25062	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25062	RunNo:	33888					
Prep Date:	4/28/2016	Analysis Date:	4/29/2016	SeqNo:	1043964	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		97.6	80	120			

Sample ID	LCS-25062	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25062	RunNo:	33888					
Prep Date:	4/28/2016	Analysis Date:	4/29/2016	SeqNo:	1043965	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.8	80	120			
Surr: BFB	1000		1000		105	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P 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#: 1604C22

06-May-16

Client: Yates Petroleum Corporation

Project: Lusk AHB Federal #10H

Sample ID	MB-25062	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25062	RunNo:	33888					
Prep Date:	4/28/2016	Analysis Date:	4/29/2016	SeqNo:	1043996	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-25062	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25062	RunNo:	33888					
Prep Date:	4/28/2016	Analysis Date:	4/29/2016	SeqNo:	1043997	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	75.3	123			
Toluene	0.84	0.050	1.000	0	84.4	80	124			
Ethylbenzene	0.83	0.050	1.000	0	82.6	82.8	121			S
Xylenes, Total	2.5	0.10	3.000	0	81.8	83.9	122			S
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
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Hall Environmental Analysis Laboratory
4301 Hawkins NE,
Albuquerque, NM 87199
TEL: 505-345-3975 FAX: 505-345-4197
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number: 1604C22 ReptNo: 1

Received by/date: *JA* *04/28/16*

Logged By: Ashley Gallegos 4/28/2016 9:10:00 AM *Ag*

Completed By: Ashley Gallegos 4/28/2016 9:42:11 AM *Ag*

Reviewed By: *JA* *04/28/16*

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

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>2^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ 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 ☒ 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?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Yes			



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

May 06, 2016

Amber Griffin

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

TEL: (575) 748-4111

FAX

RE: Lusk AHB Federal #10H

OrderNo.: 1604C22

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/28/2016 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order: 1604C22

Date Reported: 5/6/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Lusk AHB Federal #10H

Lab Order: 1604C22

Lab ID: 1604C22-001
Client Sample ID: Overspray 1-1'

Collection Date: 4/26/2016 7:40:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/2/2016 6:06:25 PM	25106

Lab ID: 1604C22-002
Client Sample ID: Overspray 2-1'

Collection Date: 4/26/2016 8:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/2/2016 6:43:39 PM	25106

Lab ID: 1604C22-003
Client Sample ID: Overspray 3-1'

Collection Date: 4/26/2016 8:20:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	5/2/2016 6:56:03 PM	25106

Lab ID: 1604C22-004
Client Sample ID: Pooling 1-1'

Collection Date: 4/26/2016 9:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	6700	300		mg/Kg	200	5/3/2016 6:28:23 PM	25106

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P 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#: 1604C22

06-May-16

Client: Yates Petroleum Corporation

Project: Lusk AHB Federal #10H

Sample ID	MB-25106	SampType:	mbk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25106	RunNo:	33940					
Prep Date:	5/2/2016	Analysis Date:	5/2/2016	SeqNo:	1045729	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25106	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25106	RunNo:	33940					
Prep Date:	5/2/2016	Analysis Date:	5/2/2016	SeqNo:	1045730	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P 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 Laboratory
4001 Hawkins NE
Albuquerque, NM 87199
TEL: 505-345-3975 FAX: 505-345-4197
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Yates Petroleum Corpora

Work Order Number: 1604C22

ReptNo: 1

Received by/date:

Logged By:

Ashley Gallegos

4/28/2016 9:10:00 AM

Completed By:

Ashley Gallegos

4/28/2016 9:42:11 AM

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

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $> 2^{\circ}\text{C}$ to 8.0°C ? Yes ☒ No ☐ 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 ☒ 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?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: (≤2 or ≥12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Yes			



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

May 13, 2016

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

RE: Lusk AHB Federal 10H

OrderNo.: 1605293

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 9 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 www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1605293

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Lab Order: 1605293

Project: Lusk AHB Federal 10H

Lab ID: 1605293-001

Collection Date: 5/4/2016 8:34:00 AM

Client Sample ID: Pooling 1-2'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	3300	150		mg/Kg	100	5/12/2016 2:11:54 PM	25250

Lab ID: 1605293-002

Collection Date: 5/4/2016 8:38:00 AM

Client Sample ID: Pooling 1-3'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	4400	150		mg/Kg	100	5/12/2016 2:24:18 PM	25250

Lab ID: 1605293-003

Collection Date: 5/4/2016 8:41:00 AM

Client Sample ID: Pooling 1-4'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	8300	750		mg/Kg	500	5/12/2016 2:36:42 PM	25250

Lab ID: 1605293-004

Collection Date: 5/4/2016 8:45:00 AM

Client Sample ID: Pooling 1-5'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	4000	150		mg/Kg	100	5/12/2016 2:49:06 PM	25250

Lab ID: 1605293-005

Collection Date: 5/4/2016 8:47:00 AM

Client Sample ID: Pooling 1-6'

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	4800	300		mg/Kg	200	5/12/2016 3:01:31 PM	25250

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P 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: 1605293

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Lab Order:** 1605293**Project:** Lusk AHB Federal 10H**Lab ID:** 1605293-006**Collection Date:** 5/4/2016 8:50:00 AM**Client Sample ID:** Pooling 1-7'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2300	75		mg/Kg	50	5/12/2016 3:13:55 PM	25250

Lab ID: 1605293-007**Collection Date:** 5/4/2016 8:53:00 AM**Client Sample ID:** Pooling 1-8'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1400	75		mg/Kg	50	5/12/2016 3:26:20 PM	25250

Lab ID: 1605293-008**Collection Date:** 5/4/2016 8:56:00 AM**Client Sample ID:** Pooling 1-9'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	540	30		mg/Kg	20	5/10/2016 4:07:01 PM	25250

Lab ID: 1605293-009**Collection Date:** 5/4/2016 8:59:00 AM**Client Sample ID:** Pooling 1-10'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	61	30		mg/Kg	20	5/10/2016 4:19:25 PM	25250

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P 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#: 1605293

13-May-16

Client: Yates Petroleum Corporation

Project: Lusk AHB Federal 10H

Sample ID	MB-25250	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	25250	RunNo	34133					
Prep Date	5/10/2016	Analysis Date	5/10/2016	SeqNo	1052258	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25250	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	25250	RunNo	34133					
Prep Date	5/10/2016	Analysis Date	5/10/2016	SeqNo	1052259	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P 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 |

Sample Log-In Check List

Client Name: **Yates Petroleum Corpora**

Work Order Number: **1605293**

RcpINo: **1**

Received by/date:

JA

05/06/16

Logged By:

Ashley Gallegos

5/6/2016 10:35:00 AM

AG

Completed By:

Ashley Gallegos

5/6/2016 11:22:46 AM

AG

Reviewed By:

JA

05/06/16

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

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ 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 ☒ 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?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

