

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

December 7, 2016

Ms. Kristen Lynch NMOCD District I 1625 N. French Drive Hobbs, New Mexico 88240

Re: Lusk-Belco Water Line

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

1RP-4280

Ms. Lynch,

APPROVED

By Olivia Yu at 12:59 pm, Apr 06, 2017

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

Lea County, New Mexico

July 19, 2016

1RP- 4290

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:

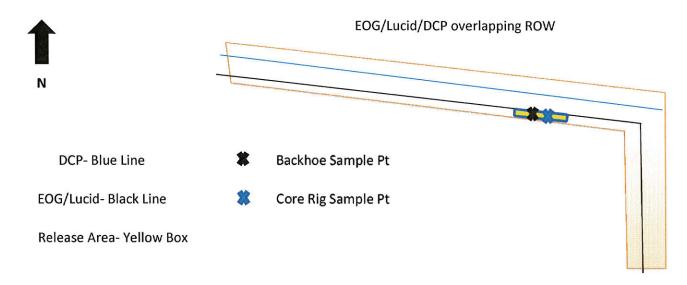
Depth to ground water > 100'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

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.



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 ¹	1605302	Release Area	5/5/2016	Backhoe	2'	N/D	N/D	N/D	13000
S1-3 ¹	1605302	Release Area	5/5/2016	Backhoe	3'	N/D	N/D	N/D	14000
S1-4 ¹	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 ¹	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
S1-20'	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



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

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

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 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 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 Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1605302

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB Belco Water Line

Lab ID: 1605302-001

Client Sample ID: S1-1'

Collection Date: 5/5/2016 12:14:00 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	7300	300	mg/Kg	200	5/13/2016 11:51:57 AM	25299
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				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 RAI	NGE				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

Matrix: SOIL

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

- * 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 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1605302

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB Belco Water Line

Lab ID: 1605302-002

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					Analys	t: JRR
Chloride	13000	750	mg/Kg	500	5/13/2016 12:04:22 PN	1 25299
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analys	t: 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 RAN	IGE				Analys	t: 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					Analys	t: 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.

- * 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 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1605302

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB Belco Water Line

Lab ID: 1605302-003

Client Sample ID: S1-3'

Collection Date: 5/5/2016 12:19:00 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	14000	750	mg/Kg	500	5/13/2016 12:16:46 PM	25299
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	: 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	GE				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					Analyst	: 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

Matrix: SOIL

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

- 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 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1605302

Date Reported: 5/13/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB Belco Water Line

Lab ID: 1605302-004

Client Sample ID: S1-4'

Collection Date: 5/5/2016 12:23:00 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				Analys	t: JRR
Chloride	19000	750	mg/Kg	500 5/13/2016 12:29:10 PM	A 25299
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS			Analys	t: 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 RA	NGE			Analys	t: 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				Analys	t: 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

Matrix: SOIL

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

- * 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 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1605302

13-May-16

Client: Project: Yates Petroleum Corporation

Lusk AHB Belco Water Line

Result

ND

Sample ID MB-25299

Prep Date: 5/12/2016

Sample ID LCS-25299

LCSS

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 25299

RunNo: 34199

SeqNo: 1054649

Units: mg/Kg

Qual

Analyte Chloride

Analysis Date: 5/12/2016 **PQL**

1.5

1.5

%REC LowLimit

HighLimit

%RPD

RPDLimit

SampType: Ics

TestCode: EPA Method 300.0: Anions

Batch ID: 25299

RunNo: 34199

Units: mg/Kg

Prep Date: 5/12/2016 Analysis Date: 5/12/2016

SeqNo: 1054650

HighLimit

%RPD

Analyte

Client ID:

Result

SPK value SPK Ref Val

SPK value SPK Ref Val

91.2

RPDLimit

Qual

Chloride

15.00

14

%REC LowLimit

PQL

110

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range J Analyte detected below quantitation limits
- Page 5 of 8

- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Client:

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

Batch ID: 25219

Analysis Date: 5/10/2016

PQL

10

10.00

Result

ND

11

Yates Petroleum Corporation

WO#:

1605302

13-May-16

Project: Lusk A	HB Belco Water Line		
Sample ID LCS-25208	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 25208	RunNo: 34107	
Prep Date: 5/9/2016	Analysis Date: 5/10/2016	SeqNo: 1051391	Units: %Rec
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	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 25219	RunNo: 34107	
Prep Date: 5/9/2016	Analysis Date: 5/10/2016	SeqNo: 1051392	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	54 10 50.00	0 107 65.8	136
Surr: DNOP	5.1 5.000	101 70	130
Sample ID MB-25208	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 25208	RunNo: 34107	
Prep Date: 5/9/2016	Analysis Date: 5/10/2016	SeqNo: 1051393	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: DNOP	10 10.00	100 70	130

Qualifiers:

Sample ID MB-25219

Prep Date: 5/9/2016

Diesel Range Organics (DRO)

PBS

Client ID:

Analyte

Surr: DNOP

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

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

Units: mg/Kg

130

%RPD

RPDLimit

Qual

HighLimit

70

E Value above quantitation range

RunNo: 34107

106

SPK value SPK Ref Val %REC LowLimit

SeqNo: 1051394

J Analyte detected below quantitation limits

Page 6 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1605302

13-May-16

Client:

Yates Petroleum Corporation

Project:

Lusk AHB Belco Water Line

Sample ID	MB-25187
Client ID:	PBS

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

80

LowLimit

Batch ID: 25187

RunNo: 34080

%REC

Prep Date: 5/6/2016

Analysis Date: 5/9/2016

SeqNo: 1050472

Units: mg/Kg

RPDLimit

Qual

Analyte Gasoline Range Organics (GRO) Surr: BFB

Result PQL ND 5.0 970

1000

SPK value SPK Ref Val

96.5

120

HighLimit

Sample ID LCS-25187

SampType: LCS Batch ID: 25187

RunNo: 34080

TestCode: EPA Method 8015D: Gasoline Range

%RPD

Client ID: LCSS

Units: mg/Kg

Prep Date: 5/6/2016 Analysis Date: 5/9/2016

SeqNo: 1050473 %REC

HighLimit

%RPD **RPDLimit** Qual

Analyte Gasoline Range Organics (GRO) Surr: BFB

Result PQL

SPK value SPK Ref Val 0

LowLimit 80

120

23 5.0 25.00 1000 1000 93.6 105

80 120

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 7 of 8

- P Sample pH Not In Range
- RL Reporting Detection Limit W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1605302

13-May-16

Client: Project: Yates Petroleum Corporation Lusk AHB Belco Water Line

Sample ID MB-25187 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 25187 RunNo: 34080 Prep 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 0.050 ND 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	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch	ID: 25	187	F	RunNo: 3	4080					
Prep Date: 5/6/2016	Analysis D	ate: 5/	9/2016	S	SeqNo: 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	1.1		1.000		107	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

\$ % 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 8 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE

Albuquerque, NAI 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.kalienvironmental.com

Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number: 1605302 ReptNo: 1 Received by/date: Lagged By: **Lindsay Mangin** 5/6/2016 10:30:00 AM Completed By. Lindsay Mangin 5/6/2016 12:58:06 PM Reviewed By: Chain of Custody 1 Custody seals intact on sample bottles? Yes No Not Present ✓ 2. Is Chain of Custody complete? Yes V No Not Present 3 How was the sample delivered? Courier Log In 4. Was an allempt made to cool the samples? No NA Were all samples received at a temperature of >0° C to 8.0°C No NA Sample(s) in proper container(s)? No 7. Sufficient sample volume for indicated test(s)? No 8. Are samples (except VOA and ONG) properly preserved? Yes V No 9. Was preservative added to bottles? No V NA Yes 10.VOA vials have zero headspace? Yes No VOA Vials 🗸 No 11. Were any sample containers received broken? Yes No V # of preserved bottles checked 12. Does paperwork match bottle labels? for pH: No Yes 🗸 (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes V No 14. Is it clear what analyses were requested? Yes V No Checked by: 15. Were all holding times able to be met? Yes V No (if no, notify customer for authorization) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No _ NA Y Person Notified. Date By Whom: Va: 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 1.0 Good Yes

ည်	ai.	of-Cu	Record	Tum-Arbund Time:	T Dunc	me:				I	1	M	VIF	Ö	Σ	HALL ENVIRONMENTA	-
Ment: Ya	ates P(etroleum	Yates Petroleum Corporation	X Standard	darc	□ Rush			П	K	Z	XS.	S	AB	OR	ANALYSIS LABORATORY	7
				Project	Vame:					W	ww.ha	lenvir	www.hallenvironmental.com	tal.co	Ε		
Aailing Address:	dress				Lusk	Lusk AHB-Belco Water Line	Water Line	4	901 H	awkin	N.	Albu	querqu	e. N	4901 Hawkins NE - Albuquerque, NM 87109	C.	
05 South	4th S	105 South 4th Street Artesia, NM	88210	Project	÷.				Tel. 50	505-345-3975	3975	Fax	x 505-	505-345-4107	4107		
hone #:		575-703-6537	-6537						4.10.93		To the second	nalys	Analysis Request	nest			
mail or Fax#;	ax#;	csettle@	osettle@yatespetroleum.com	Project Manager:	/anag			-			edenia (inced				a chiantenani men	who him had a	,
DAVQC Package:	ckage:				O	Chase Settle			The state of the s			J \			TOTAL STREET,		
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☐ EDD (Type)	(adv.	And the second s		Sample	Tempe	emperature: / 👌		-	-	unional cond	ionali (agree)			(V	2/5		<i>\)</i>
Date te	T Te	Matrix	Sample Request ID	Container Type and #	TRANSPORTER TO A PROPERTY OF THE PARTY OF TH	Preservative Type	HEAL NO.	81EX + MT	TPH Metho	MEM) HGT	rhsM) 원연권 AM9) 9168	M 8 AMOR	0 ,4) anoinA orac 1 f.808	OA) 80928	(.468) (378)		səldduð riA
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		Man volumes	shorted to Table Environmental may be subconfracted to	omraeted to	other aca	edited laboratorio	a. This serves as notice of this possibility.	possibility		anti-co-d	ded deta	will be el	Any sub-contracted data will be clearly notated on the	ated on	he areiy	SSI report.	



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

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

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 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 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 Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1605740

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/25/2016

CLIENT: Yates Petroleum Corporation Lab Order: 1605740 Project: Lusk AHB Belco Water Line Lab ID: 1605740-001 Collection Date: 5/5/2016 12:28:00 PM Client Sample ID: S1-5' Matrix: SOIL PQL Qual Units Analyses Result **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 300.0: ANIONS** Analyst: LGT Chloride 25000 1500 1E 5/23/2016 9:21:52 PM 25413 mg/Kg Lab ID: 1605740-003 Collection Date: 5/5/2016 12:37:00 PM Client Sample ID: S1-8' Matrix: SOIL Result **PQL Qual Units** Analyses **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT 26000 1500 Chloride 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 Result **PQL Qual Units** DF Date Analyzed Analyses **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 Client Sample ID: Matrix: SOIL DF Date Analyzed Analyses Result **PQL Qual Units Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 22000 750 mg/Kg 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.

- 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 3
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order: 1605740

Date Reported: 5/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT:

Yates Petroleum Corporation

Project:

Lusk AHB Belco Water Line

Lab Order:

1605740

Lab ID:

1605740-006

Collection Date: 5/5/2016 12:58:00 PM

Matrix: SOIL

Analyses

Client Sample ID: S1-14'

PQL Qual Units Result

DF Date Analyzed

Batch ID

EPA METHOD 300.0: ANIONS

Analyst: LGT

mg/Kg

Chloride

20000

750

500 5/23/2016 10:36:19 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
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В 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
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1605740

25-May-16

Client:

Yates Petroleum Corporation

Project:

Lusk AHB Belco Water Line

Sample ID MB-25413

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID: Prep Date:

PBS

5/19/2016

Batch ID: 25413 Analysis Date: 5/19/2016

PQL

PQL

1.5

RunNo: 34392

SeqNo: 1060476

SPK value SPK Ref Val %REC LowLimit

0

Units: mg/Kg

Analyte

Result

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

90

LowLimit

Units: mg/Kg

Prep Date: 5/19/2016

Analysis Date: 5/19/2016

SeqNo: 1060477 %REC

HighLimit

%RPD **RPDLimit**

Qual

Analyte

15.00

97.0

Chloride

Result 15

SPK value SPK Ref Val

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

S % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

E Value above quantitation range

I Analyte detected below quantitation limits

Page 3 of 3

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE

 $Albuquerque, NM\,87109$

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

Sample Log-In Check List

	Constitution and consider a state of the sta		OFFICE PROPERTY.	STATE OF THE PARTY			
Client Name:	Yates Petroleum Corpora	Work Order Number:	16057	40		Rcpl	No 1
Received by/date		05/19/10					
Logged By:	Lindsay Mangin	5/17/2016 9:40:00 AM			James Horiza	,	
Completed By:	Lindsay Mangin	5/17/2016 9:51;52 AM			Spraly Hope)	
Reviewed By:	0	05/17/16			000		
*	todu	01/1/10					
Chain of Cust			Yes	1	No	Not Present	J
187) Visit of Section in Control	Is intact on sample bottles?		Yes		No T	Not Present	***************************************
	custody complete?				NO	NOT PRESENT	L
3 How was the	sample delivered?		Cour	ier			
Log In							
4. Was an alle	mpt made to cool the samp	les?	Yes	Y	No 🗀	NA	
Were all san	nples received at a tempera	ture of >0" C to 5.0"C	Yes	V	No 🗌	NA	
6. Sample(s) in	n proper container(s)?		Yes	~	No 🗆		
				1			
	mple volume for indicated to		Yes	100000	No 🗔		
1000	(except VOA and ONG) pro	operly preserved?	Yes		No 🗍		**************************************
Was preserv	ative added to bottles?		Yes	1	No V	NA	1
10.VOA vials ha	ave zero headspace?		Yes	i -	No 🗔	No VOA Vials	V
11. Were any sa	ample containers received t	proken?	Yes	and and	No 🗸		
						# of preserved bottles checke	d
	work match bottle labels?		Yes	~	No 🗌	for pH:	
	pancies on chain of custody			1. 2		Adjusted	(<2 or >12 unless noted)
C+ +1 32 94 0002 000	s correctly identified on Cha	erena en el recomo grado en materia, palament a e e que e se Se Suci	Yes		No 🗔	Adjustes	1
A 02 - 5 500	at analyses were requested	1?	Yes	******	No 🗔	Checked	hu.
	ding times able to be met? customer for authorization.)	Yes	Y .	No 🗔	CHecked	oy
Special Hano	lling (if applicable)						
22.00	notified of all discrepancies	with this order?	Yes	1	No 🗌	NA	V
	and the landers of the second	gredayatises can a selection of the particular selection of the particular security of the particular	100	1-acts	Marie Communication (Communication Communication Communica	190	M.
	n Notified:	Cate					
By Wi	* THE NAME OF THE PROPERTY OF	Via:	eM:	311 j	Phone Fax	In Person	and ind
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	Instructions						
17. Additional r	emarks:						
18. Cooler Info		1 = 1 = 1 = 1 = 1 = 1 = 1	<u></u>		1 <u>11</u> 193 - Allendria	ĩ	
Cooler N	lo Temp C Condition 5.4 Good	Seal Intact Seal No Yes	Sea D	ate	Signed By		

VIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	Albuquerque, NM 87109	Eav 505_345_4107	as Societies as a second	Analysis Kequest			oranteen o	908	1.VC.	V(Ve	7.4) anoinA iteo9 1808 OV) B0aS8 * 93) 07S8	×	×	×	×	×	×			
	ANALYS	www.hallenvi	4901 Hawkins NE - Alb		16l. 303-343-3873		(App	0.88	(9)	(; (;)) (3 Hd.	1Va 1708 811 910 1. 1	(11.) 00 (01.) 01.) 13. 13. 14. 14. 14.	FTEX - MT TPH (Wesh TPH (Wesh TPH (Wesh TPH (Mesh TPH (M			301					Remarks:	
	□ Rush		Lusk AHB-Belco Water Line				er:	Chase Settle	PO # 205. 0750	Chase Settle	☑ Yes □ No	erature: ろ. ヴ	Preservative HEAL No.	None -00(None -022	None -03	None - 22/	None -	None Cho		7 05/17/16 9040	Date Time'
Turn-Around Time:	X Standard	Project Name:	Lusk	Project #:	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	21:400 money	Project Manager:	O	0.	Sampler: O		Sample Temperature:	Container P	1 - 40Z.	1 - 40z.	1 - 40z.	1 - 4oz.	1 - 40z.	1 - 40Z. N	Alderen	Received by:	Received by:
Chain-of-Custody Record	Yates Petroleum Corporation			and the second s	sia, NM 88210	1537	csettle@yatespetroleum.com		☐ Level 4 (Full Validation)				Sample Request ID	S1-5 ⁻	S1-6 ⁻	S1-8'	S1-10'	\$1-12	\$1-14"		in the second	pic pic
of-Cus	etroleum C				05 South 4th Street Artesia, NM	575-703-6537	csettle@y				□ Other		Matrix	Soil	Soil	Soil	Soil	Soil	Soil	AND THE RESERVE OF THE SECOND	Relinquished by:	Refinquished by:
hain-			falling Address:		outh 4th S	11:	mail or Fax#:	JA/CC Package:	Standard	coreditation.	LAP LAP	EDD (Type)	Tine	5/5/2016/12:28P	5/5/2016 12:31P	3/3/2016 12:37P Soil	515/2016 12:44P	5/5/2016 ' 2:50P Sol	19 12:58P		Time:	
	lient:		ailing		05 Sc	hone #:	mail	MOC	ζ. 	a de la companya de l			Date	5,5/20%	5,5/203	\$5\$201	105/201	5/5/201	5.572018) ate:	Sate:



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

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

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 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 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 Freeman

Laboratory Manager

andist

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1606535

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/17/2016

CLIENT: Yates Petroleum Corporation Lab Order: 1606535 Project: Lusk AHB Belco Water Line Lab ID: 1606535-001 Collection Date: 6/8/2016 10:37:00 AM Client Sample ID: S1-17' Matrix: SOIL **Analyses** Result PQL Qual Units **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 16000 750 mg/Kg 500 6/15/2016 4:24:35 PM 25840 Lab ID: 1606535-002 Collection Date: 6/8/2016 11:14:00 AM Client Sample ID: S1-18' Matrix: SOIL Result **PQL Qual Units** DF Date Analyzed Analyses **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 13000 750 mg/Kg 500 6/15/2016 4:37:00 PM 25840 Lab ID: 1606535-003 Collection Date: 6/8/2016 11:30:00 AM Client Sample ID: S1-20' Matrix: SOIL **Analyses** Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 17000 750 500 6/15/2016 4:49:25 PM mg/Kg 25840

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

- 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

Hall Environmental Analysis Laboratory, Inc.

WO#:

1606535

17-Jun-16

Client:

Yates Petroleum Corporation

Project:

Lusk AHB Belco Water Line

Result

Sample ID MB-25840

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

LCSS

Batch ID: 25840

RunNo: 34930

Prep Date: 6/14/2016

Analysis Date: 6/14/2016

Units: mg/Kg

HighLimit

Analyte

PQL

SeqNo: 1078875

%RPD **RPDLimit**

Qual

Chloride

ND 1.5

Sample ID LCS-25840

SampType: Ics

TestCode: EPA Method 300.0: Anions

RunNo: 34930

Units: mg/Kg

Prep Date: 6/14/2016

Batch ID: 25840 Analysis Date: 6/14/2016

1.5

SeqNo: 1078876

%REC LowLimit

%RPD HighLimit

RPDLimit

Qual

Analyte

Client ID:

Result PQL

SPK value SPK Ref Val

0

96.7

90

Chloride

15

15.00

SPK value SPK Ref Val %REC LowLimit

110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- I 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 2 of 2



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

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

Sample Log-In Check List

Client Name:	Yates Petroleum Corporat	Work Order Number:	1606535		RcptNo:	1
Received by/dat	e: Lindsay Mangin	0G/10/16 6/10/2016 9:30:00 AM		James Hope D		!
Completed By:	Lindsay Mangin	6/10/2016 10:32:09 AM		Simulay Alberton		
Reviewed By:				000	•	[
Chain of Cus	stody					
	als intact on sample bottles?		Yes 🕏	No 🗆	Not Present	
(5)(5) 1 57 100 10 1000 10 1000	Custody complete?		Yes 🐼	No 🗆	Not Present	
	e sample delivered?		Courier			
l on In						
<u>Log In</u>		-0	Yes 🐼	No 🗆	NA □	
4. Was an att	empt made to cool the samples	S?	Yes 🗹	NO L	NA L	
5. Were all sa	mples received at a temperatu	re of >0° C to 6.0°C	Yes 🗌	No 🗹	NA 🗆	
			Approved			
6. Sample(s)	in proper container(s)?		Yes 🕏	No 🗀		
7. Sufficient s	ample volume for indicated tes	t(s)?	Yes ·	No 🗌		
8. Are sample	s (except VOA and ONG) prop	erly preserved?	Yes 🐼	No 🗆	7	
9. Was prese	rvative added to bottles?		Yes 🗌	No 🐼	NA 🗆	
10 VOA viale I	have zero headspace?		Yes 🗀	No 🗆	No VOA Vials	
	sample containers received bro	oken?	Yes 🗆	No ₩		::
I I, Well any	sample containers received bre		103		# of preserved bottles checked	
12.Does pape	rwork match bottle labels?		Yes 🖈	No 🗆	for pH:	
	repancies on chain of custody)			N. []	(<2 o	or >12 unless noted)
	es correctly identified on Chain		Yes 🗹	No □ No □		ः
TO SECURE AND ADDRESS OF THE PARTY OF THE PA	what analyses were requested? olding times able to be met?		Yes 🗹	No 🗆	Checked by:	
	y customer for authorization.)		103 🖭			
Special Han	dling (if applicable)					
16.Was client	notified of all discrepancies wi	th this order?	Yes	No 🗆	NA 🛃	
Pers	on Notified:	Date:	TOO TO THE PERSON NAMED AS A PARTY.	Charles to the second constitution of the second se		
Ву V	Vhom:	Via:	eMail [] Phone [] Fax	☐ In Person	
1 500	arding:			and a section A. L. M. Martin and C. M. Martin and C. M. M. Martin and C. M.	and the state of t	ŀ
Clier	nt Instructions:					
17. Additiona	remarks:					
18. <u>Cooler In</u>				F 100150 2000000	1	
Cooler		Seal Intact Seal No Yes	Seal Date	Signed By	-	
Ľ	10.0 0000		,	! ************************************	.1	



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

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

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 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 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 Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1611A10

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

: Lusk AHB-Belco Water Line

Lab ID: 1611A10-001

Client Sample ID: CR-20'

Collection Date: 11/16/2016 1:55:00 PM Received Date: 11/18/2016 9:30:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: LGT

 Chloride
 16000
 750
 mg/Kg
 500 11/29/2016 12:07:21 AM 28796

Matrix: SOIL

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

- 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 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1611A10

Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/30/2016

CLIENT: Yates Petroleum Corporation

Client Sample 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 Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Anal	yst: LGT
Chloride	8700	750	mg/Kg	500 11/29/2016 12:19:46	6 AM 28796

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

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

Lab Order 1611A10

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB-Belco Water Line

Lab ID: 1611A10-003

Client Sample ID: CR-30'

Collection Date: 11/16/2016 2:10:00 PM

Received Date: 11/18/2016 9:30:00 AM

Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Anal	yst: LGT
Chloride	14000	750	mg/Kg	500 11/29/2016 12:32:11	AM 28796

Matrix: SOIL

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

- 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 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1611A10

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

1611A10-004

Lab ID:

Project: Lusk AHB-Belco Water Line

Matrix: SOIL

Client Sample ID: CR-35'

Collection Date: 11/16/2016 2:19:00 PM

Received Date: 11/18/2016 9:30:00 AM

Analyses	Result	PQL Qu	al 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

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

- 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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 7 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1611A10

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project:

1611A10-005

Lab ID:

Lusk AHB-Belco Water Line

Matrix: SOIL

Client Sample ID: CR-40'

Collection Date: 11/16/2016 2:28:00 PM

Received Date: 11/18/2016 9:30:00 AM

Analyses	Result	PQL Qu	al Units	DF Date A	Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: LGT
Chloride	490	30	mg/Kg	20 11/22/	2016 7:55:40 I	PM 28796

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

- 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
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range E
- J
- Analyte detected below quantitation limits Page 5 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1611A10

Date Reported: 11/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Lusk AHB-Belco Water Line

1611A10-006 Lab ID:

Client Sample ID: CR-45'

Collection Date: 11/16/2016 2:39:00 PM

Received Date: 11/18/2016 9:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: LGT
Chloride	500	30	mg/Kg	20	11/22/2016 8:08:04	PM 28796

Matrix: SOIL

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

- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 7 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1611A10

30-Nov-16

Client:

Yates Petroleum Corporation

Project:

Lusk AHB-Belco Water Line

Sample ID MB-28796

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: PBS

Batch ID: 28796

RunNo: 38922

Prep Date: 11/21/2016

Analysis Date: 11/22/2016

SeqNo: 1216481

Units: mg/Kg

Analyte

Result **PQL** SPK value SPK Ref Val %REC LowLimit

HighLimit

RPDLimit

Qual

Chloride

ND 1.5

Sample ID LCS-28796

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS

Batch ID: 28796

RunNo: 38922

Units: mg/Kg

Prep Date: 11/21/2016

Analysis Date: 11/22/2016

SeqNo: 1216482

Analyte

Result

SPK value SPK Ref Val %REC PQL

90

HighLimit %RPD **RPDLimit**

%RPD

Qual

Page 7 of 7

Chloride

110

14 1.5 15.00 0 93.6

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

RPD outside accepted recovery limits R

% 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

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

Sample Log-In Check List

Client Name: EOG/Yates Wor	rk Order Number: 1611A10		RcptNo: 1	
Received by/date;	18/14		2 00 % 04 6	
Logged By: Ashley Gallegos 11/18/	/ /2016 9:30:00 AM	A		
	/2016 12:12:59 PM	A		
Reviewed By: A A A	11/18/110	. 0		
Chain of Custody	-110110			
1. Custody seals intact on sample bottles?	Yes [No 🗆	Not Present	
2. Is Chain of Custody complete?	Yes 🗸	No [.]	Not Present	
How was the sample delivered?	Courier			
•	-			
<u>Log In</u>		17.1		
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗀	NA 🗀	
5. Were all samples received at a temperature of >0	°C to 6.0°C Yes	No ✓	NA []	
5. Trois an sumples received at a temperature of the		equired	WA (_)	
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 pres	served? Yes 🗹	No 🗀		
9. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗀	
40.404 data harrana hardana 0		N- []	No VOA Vials	
10.VOA vials have zero headspace?	Yes L Yes	No ☐ No 🗹	No VOA VIais 🖭	
11. Were any sample containers received broken?	res —	140 (王)	# of preserved	
12. Does paperwork match bottle labels?	Yes 🗸	No 🗌	bottles checked for pH:	
(Note discrepancies on chain of custody)	i s		and any or the self-or	>12 unless noted)
13. Are matrices correctly identified on Chain of Custo		No [_] No [_]	Adjusted?	
14. Is it clear what analyses were requested?15. Were all holding times able to be met?	Yes ✔ Yes ✔	No []	Checked by:	
(If no, notify customer for authorization.)	163 🖭	140 []		
Special Handling (if applicable)	•			
16. Was client notified of all discrepancies with this or	der? Yes 🗌	No 🗀	NA 🗹	
Person Notified:	Date	School Red Division School British Color		
By Whom:	Via: [] eMail [] Phone []} Fax	I In Person	
Regarding:	A PROTECTION OF THE SECRET OF		nunnaka) an angan mangan mangan angan a	
Client Instructions:				
17. Additional remarks:				
18. Cooler Information				
Cooler No Temp °C Condition Seal Int. 1 15.0 Good Yes	act Seal No Seal Date	Signed By	-	(e)
1. 1000 1000				

Chair Client: Yates	Petroleum	Chain-of-Custody Record	Turn-Around Time: X Standarc	lime: □ Rush				I	HALL ENVIRONMENTAL ANALYSIS LABORATORY	E E	IS IS	S _A	BON	Z.E.	ΕĒ	چ ۱۲	
			Project Name	••				-	www.hallenvironmental.com	allenvi	опте	ntal.c	E OC				
Mailing Address:	.ss:			Lusk AHB-Belco Water Line	Water Line	7	1901	ławki	4901 Hawkins NE - Albuquerque, NM 87109	- Alb	adnerd	ue, N	VM 87	109			
105 South 4th	Street Art	105 South 4th Street Artesia, NM 88210	Project #:			2	Tel. 5	05-34	505-345-3975	Ш	Fax 50	5-34	505-345-4107	_			
Phone #:	575-703-6537	-6537				18		İ		Analy	Analysis Request	dile					
email or Fax#:		csettle@yatespetroleum.com	Project Manager:	ger:													
QA/QC Package:	ă			Chase Settle			25-20-20-20-20-20-20-20-20-20-20-20-20-20-				-			***************************************			
□ Standard		☐ Level 4 (Full Validation)		PO # 205. 0750	.20							~		-			
Accreditation:	□ Other		Sampler: On Ice:	Chase Settle) Jy()No		ass resembled					200 10	(A)			0,20	ULIVI
□ EDD (Type)	П		Sample Temperature;	10	.0.		10000									^/	11
Date Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 16/1/24/10.	BTEX + MT	BTEX + MT	orbaM) H9T	EDB (Metho AM9) 0168	RCRA 8 Me	O,FI) enoinA 	OV) 80858	im92) 07S8			selddu⊠ γiΔ	Air Bubbles
14/16/16 1:55p	Soil	CR-20'	1 - 4oz.	None	100-						×						
#### 2:05p	Soil	CR-25'	1 - 40z.	None	-003	i .			. i	1 1	×						
##### 2:10p	Soil	CR-30'	1 - 4oz.	None	7003	i					×						
### 2:19p	Soil	CR-35'	1 - 402.	None	h00-				-		×				_		- 1
###### 2:28p	Soll	CR-40'	1 - 4oz.	None	-005						×			_			- 1
##### 2:39p	Soil	CR-45'	1 - 402.	None	DO 00-	1					×				_		- 1
						-	_		-		+	_		\dashv			
									+		\dashv	_ _		+	-	1	- 1
						+	-		+		+	4		+	-		- 1
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									_		_						- 1
Date: Time:	Relinquished-by:	1	Received by:	1	Date Time 0.043.	Remarks:		Results	13	nee	nuded by	-	<u> </u>	11/29/2016.	2016		1
-	Relinquished by:		Received by:		Date Time												
					9												

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.