

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S. P. YATES
1914-2008



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES
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CHIEF FINANCIAL OFFICER

February 5, 2016

Ms. Kellie Jones/ Mr. Jamie Keyes
NMOCD District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Abby BLF State #1
30-025-38951
Section 10, T9S-R33E
Lea County, New Mexico

RECEIVED

By JKeyes at 9:34 am, Feb 08, 2016

APPROVED

By JKeyes at 9:34 am, Feb 08, 2016

Dear Ms. Jones / Mr. Keyes,

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated September 16, 2015.

If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after February 20, 2016.

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

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle
Environmental Regulatory Agent

Enclosure(s)

KATHY H. PORTER
SECRETARY

JAMES D. SCHAFER
TREASURER

Yates Petroleum Corporation

Abby BLF State #1 Work Plan

Section 10, T9S-R33E

Lea County, New Mexico

February 5, 2016

1RP-3863

I. Location

From Crossroads, NM, travel west on Carroll Road for approximately 13.6 miles to the junction of Carroll Road and Tobac Road, turn north on Tobac Road for approximately 1 mile, turn east for ¼ of a mile to the location.

II. Background

On September 16, 2015, Yates submitted to the NMOCD District I office a Form C-141 for the release of 2 B/O & 5 B/PW with 0 B/O & 0 B/PW recovered. The affected area is approximately 150 feet by 10 feet around the pumping unit on the location pad. Initial delineation samples were taken (9/14/2015) and sent to a NMOCD approved laboratory (9/28/2015, results enclosed). Further sampling was conducted in the S2 and S3 release areas (11/3/2015) and sent to a NMOCD approved laboratory (11/17/2015, results enclosed). Additional results were taken in the S3 release area (1/20/2016) and sent to a NMOCD approved laboratory (1/28/2016, results enclosed).

III. Surface and Ground Water

Area surface geology is Cenozoic Quaternary Tertiary. The ChevronTexaco Trend Map displays at this location (Section 10, T9S-R33E) that depth to groundwater is approximately 65' feet making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (10) based on the as following:

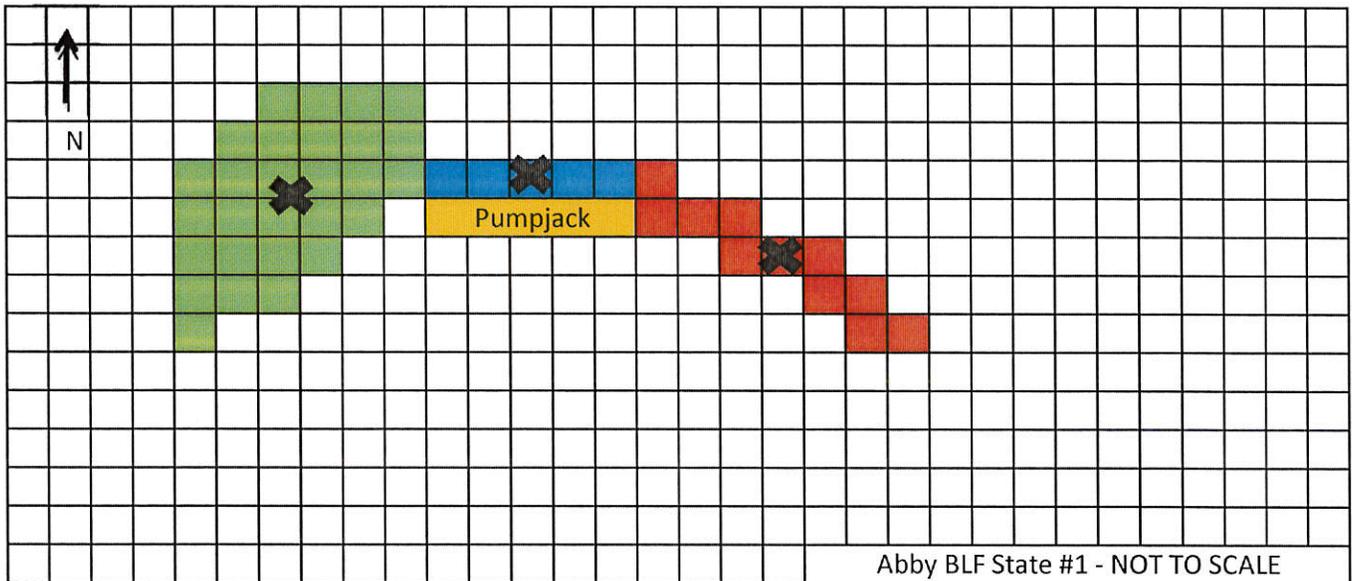
Depth to ground water	50-99'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

IV. Soils

The area consists of soils that are loamy top soil with clay seams on top of caliche and plate rock providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (65'), and a decrease in chlorides, Yates Petroleum Corporation proposes to excavate the S2 area down to the rock plate (2 to 2 ½ feet) that prohibited sampling being too hard for a backhoe to penetrate, and five (5) feet in the S3 area. All excavated soil will be disposed of at a NMOCD approved facility. The S2 area will then be backfilled with 2 to 2 ½ feet of caliche, and the S3 area will be backfilled with 5 feet of caliche. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (1000 ppm) for the Total Ranking Score of ten (10), 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.



Sample ID	Analytical ID	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1509875	9/14/2015	Hand Auger	1'	ND	ND	ND	ND
S2-1'	1509875	9/14/2015	Hand Auger	1'	ND	ND	ND	1900
S2-2'	1511273	11/3/2015	Backhoe	2'	N/A	N/A	N/A	920
S3-1'	1509875	9/14/2015	Backhoe	1'	ND	6.6	46	4100
S3-2'	1511273	11/3/2015	Backhoe	2'	N/A	N/A	N/A	3900
S3-3'	1511273	11/3/2015	Backhoe	3'	N/A	N/A	N/A	2500
S3-4'	1511273	11/3/2015	Backhoe	4'	N/A	N/A	N/A	2300
S3-5'	1511273	11/3/2015	Backhoe	5'	N/A	N/A	N/A	2300
S3-6'	1601860	1/20/2016	Backhoe	6'	N/A	N/A	N/A	230
S3-7'	1601860	1/20/2016	Backhoe	7'	N/A	N/A	N/A	170
S3-8'	1601860	1/20/2016	Backhoe	8'	N/A	N/A	N/A	150
S3-9'	1601860	1/20/2016	Backhoe	9'	N/A	N/A	N/A	200
S3-10'	1601860	1/20/2016	Backhoe	10'	N/A	N/A	N/A	110

Site Ranking is ten (10). 50-99' (65', Section 10, T9S-R33E, Trend Map)

All results are ppm (chloride for documentation).

Released: 2 B/O & 5 B/PW; Recovered: 0 B/O & 0 B/PW Release Date: 09/07/2015



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

September 28, 2015

Chase Settle

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

TEL: (575) 748-4217

FAX

RE: Abby BLF State #1

OrderNo.: 1509875

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/18/2015 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 dashed line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-1'

Project: Abby BLF State #1

Collection Date: 9/14/2015 1:02:00 PM

Lab ID: 1509875-001

Matrix: SOIL

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	9/23/2015 12:48:38 PM	21468
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/23/2015 7:11:29 PM	21433
Surr: BFB	97.3	70-130		%REC	1	9/23/2015 7:11:29 PM	21433
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/23/2015 11:43:07 AM	21428
Surr: DNOP	106	57.9-140		%REC	1	9/23/2015 11:43:07 AM	21428
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	9/23/2015 7:11:29 PM	21433
Toluene	ND	0.048		mg/Kg	1	9/23/2015 7:11:29 PM	21433
Ethylbenzene	ND	0.048		mg/Kg	1	9/23/2015 7:11:29 PM	21433
Xylenes, Total	ND	0.096		mg/Kg	1	9/23/2015 7:11:29 PM	21433
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%REC	1	9/23/2015 7:11:29 PM	21433
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	9/23/2015 7:11:29 PM	21433
Surr: Dibromofluoromethane	107	70-130		%REC	1	9/23/2015 7:11:29 PM	21433
Surr: Toluene-d8	94.3	70-130		%REC	1	9/23/2015 7:11:29 PM	21433

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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-1'

Project: Abby BLF State #1

Collection Date: 9/14/2015 1:10:00 PM

Lab ID: 1509875-002

Matrix: SOIL

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1900	75		mg/Kg	50	9/24/2015 10:04:21 PM	21468
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/23/2015 7:39:05 PM	21433
Surr: BFB	97.7	70-130		%REC	1	9/23/2015 7:39:05 PM	21433
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/23/2015 12:47:54 PM	21428
Surr: DNOP	99.4	57.9-140		%REC	1	9/23/2015 12:47:54 PM	21428
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	9/23/2015 7:39:05 PM	21433
Toluene	ND	0.048		mg/Kg	1	9/23/2015 7:39:05 PM	21433
Ethylbenzene	ND	0.048		mg/Kg	1	9/23/2015 7:39:05 PM	21433
Xylenes, Total	ND	0.097		mg/Kg	1	9/23/2015 7:39:05 PM	21433
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	9/23/2015 7:39:05 PM	21433
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	1	9/23/2015 7:39:05 PM	21433
Surr: Dibromofluoromethane	105	70-130		%REC	1	9/23/2015 7:39:05 PM	21433
Surr: Toluene-d8	94.5	70-130		%REC	1	9/23/2015 7:39:05 PM	21433

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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S3-1'

Project: Abby BLF State #1

Collection Date: 9/14/2015 1:17:00 PM

Lab ID: 1509875-003

Matrix: SOIL

Received Date: 9/18/2015 9:21:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	4100	150		mg/Kg	100	9/24/2015 10:16:45 PM	21467
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	6.6	4.9		mg/Kg	1	9/23/2015 8:06:32 PM	21433
Surr: BFB	104	70-130		%REC	1	9/23/2015 8:06:32 PM	21433
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	46	9.7		mg/Kg	1	9/23/2015 1:09:23 PM	21428
Surr: DNOP	103	57.9-140		%REC	1	9/23/2015 1:09:23 PM	21428
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.049		mg/Kg	1	9/23/2015 8:06:32 PM	21433
Toluene	ND	0.049		mg/Kg	1	9/23/2015 8:06:32 PM	21433
Ethylbenzene	ND	0.049		mg/Kg	1	9/23/2015 8:06:32 PM	21433
Xylenes, Total	ND	0.097		mg/Kg	1	9/23/2015 8:06:32 PM	21433
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%REC	1	9/23/2015 8:06:32 PM	21433
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	1	9/23/2015 8:06:32 PM	21433
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/23/2015 8:06:32 PM	21433
Surr: Toluene-d8	94.2	70-130		%REC	1	9/23/2015 8:06:32 PM	21433

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509875

28-Sep-15

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	MB-21467	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	21467	RunNo:	29069					
Prep Date:	9/23/2015	Analysis Date:	9/23/2015	SeqNo:	882299	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-21467	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	21467	RunNo:	29069					
Prep Date:	9/23/2015	Analysis Date:	9/23/2015	SeqNo:	882300	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509875

28-Sep-15

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	MB-21428	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	21428	RunNo:	29041					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	881439	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	11		10.00		107	57.9	140			

Sample ID	LCS-21428	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	21428	RunNo:	29041					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	881441	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.9	57.4	139			
Surr: DNOP	5.2		5.000		105	57.9	140			

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 | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509875

28-Sep-15

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	mb-21433	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	21433	RunNo:	29067					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	882273	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.7	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID	ics-21433	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	21433	RunNo:	29067					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	882274	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.1	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.0	0.10	3.000	0	98.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1509875

28-Sep-15

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	mb-21433	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	21433	RunNo:	29067					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	882242	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	500		500.0		101	70	130			

Sample ID	ics-21433	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	21433	RunNo:	29067					
Prep Date:	9/22/2015	Analysis Date:	9/23/2015	SeqNo:	882243	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	70	123			
Surr: BFB	480		500.0		96.6	70	130			

Qualifiers:

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

Sample Log-In Check List

Client Name: Yates Petroleum Corporat

Work Order Number: 1509875

RcptNo: 1

Received by/date:  09/18/15

Logged By: Lindsay Mangin 9/18/2015 9:21:00 AM



Completed By: Lindsay Mangin 9/18/2015 10:54:08 AM



Reviewed By:  09/18/15

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° 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
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH:
 (<2 or >12 unless noted)
 Adjusted?
 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	4.2	Good	Yes			



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

November 17, 2015

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

RE: Abby BLF State #1

OrderNo.: 1511273

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/6/2015 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 dashed line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1511273

Date Reported: 11/17/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Abby BLF State #1

Lab Order: 1511273

Lab ID: 1511273-001 **Collection Date:** 11/3/2015 10:27:00 AM
Client Sample ID: S2-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	920	30		mg/Kg	20	11/11/2015 8:20:23 PM	22299

Lab ID: 1511273-002 **Collection Date:** 11/3/2015 10:42:00 AM
Client Sample ID: S3-2' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	3900	150		mg/Kg	100	11/14/2015 2:55:57 AM	22299

Lab ID: 1511273-003 **Collection Date:** 11/3/2015 10:47:00 AM
Client Sample ID: S3-3' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2500	75		mg/Kg	50	11/14/2015 3:08:22 AM	22299

Lab ID: 1511273-004 **Collection Date:** 11/3/2015 10:52:00 AM
Client Sample ID: S3-4' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2300	75		mg/Kg	50	11/14/2015 3:20:46 AM	22299

Lab ID: 1511273-005 **Collection Date:** 11/3/2015 10:57:00 AM
Client Sample ID: S3-5' **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	2300	75		mg/Kg	50	11/14/2015 3:33:10 AM	22299

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	Page 1 of 2
	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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1511273

17-Nov-15

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	MB-22299	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22299	RunNo:	30193					
Prep Date:	11/11/2015	Analysis Date:	11/11/2015	SeqNo:	919916	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-22299	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22299	RunNo:	30193					
Prep Date:	11/11/2015	Analysis Date:	11/11/2015	SeqNo:	919917	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.9	90	110			

Sample ID	MB-22299	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	22299	RunNo:	30221					
Prep Date:	11/11/2015	Analysis Date:	11/12/2015	SeqNo:	920917	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-22299	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	22299	RunNo:	30221					
Prep Date:	11/11/2015	Analysis Date:	11/12/2015	SeqNo:	920918	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

Qualifiers:

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



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: Yates Petroleum Corporat

Work Order Number: 1511273

RcptNo: 1

Received by/date:

JA

11/06/15

Logged By: Lindsay Mangin

11/6/2015 9:35:00 AM

Jessie H...

Completed By: Lindsay Mangin

11/6/2015 12:28:51 PM

Jessie H...

Reviewed By:

[Signature]

11/06/15

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° 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
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH:
 (<2 or >12 unless noted)
 Adjusted?
 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			

Chain-of-Custody Record

Client: Yates Petroleum Corporation

Mailing Address:

105 South 4th Street Artesia, NM 88210

Phone #: 575-703-6537

email or Fax#: csettle@yatespetroleum.com

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation:

NELAP Other

EDD (Type)

Turn-Around Time:

Standard Rush

Project Name:

Abby BLF State #1

Project #:

30-025-38951

Project Manager:

Chase Settle

PO # 205. 0750

Sampler: Chase Settle

On Ice: Yes No

Sample Temperature: 5.3

Date Time Matrix Sample Request ID

11/3/2015	10:27	Soil	S2-2'	Container Type and #	1 - 4oz.	Preservative Type	None	HEAL No.	151127B
11/3/2015	10:42	Soil	S3-2'	1 - 4oz.	None	None	-001		
11/3/2015	10:47	Soil	S3-3'	1 - 4oz.	None	None	-002		
11/3/2015	10:52	Soil	S3-4'	1 - 4oz.	None	None	-003		
11/3/2015	10:57	Soil	S3-5'	1 - 4oz.	None	None	-004		
							-005		

Date: 11-5-15

Time: 10:57

Relinquished by: *[Signature]*

Date: 11/06/15

Time: 09:35

Date:

Time:

Relinquished by:

Date:

Time:

Remarks:

Analysis Request

BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
8310 (PNA or PAH)	
RCRA 8 Metals	X
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	X
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles (Y or N)	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107



Hall Environmental Analysis Laboratory
4901 Hawkins NE
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Website: www.hallenvironmental.com

January 27, 2016

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

RE: Abby BLF State #1

OrderNo.: 1601860

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/22/2016 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: 1601860

Date Reported: 1/27/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Abby BLF State #1

Lab Order: 1601860

Lab ID: 1601860-001 Collection Date: 1/20/2016 10:30:00 AM
Client Sample ID: S3-6' Matrix: SOIL

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 300.0: ANIONS, Chloride, 230, 30, mg/Kg, 20, 1/26/2016 11:39:06 AM, 23417

Lab ID: 1601860-002 Collection Date: 1/20/2016 10:35:00 AM
Client Sample ID: S3-7' Matrix: SOIL

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 300.0: ANIONS, Chloride, 170, 30, mg/Kg, 20, 1/26/2016 12:16:19 PM, 23417

Lab ID: 1601860-003 Collection Date: 1/20/2016 10:46:00 AM
Client Sample ID: S3-8' Matrix: SOIL

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 300.0: ANIONS, Chloride, 150, 30, mg/Kg, 20, 1/26/2016 12:28:43 PM, 23417

Lab ID: 1601860-004 Collection Date: 1/20/2016 10:58:00 AM
Client Sample ID: S3-9' Matrix: SOIL

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 300.0: ANIONS, Chloride, 200, 30, mg/Kg, 20, 1/26/2016 12:41:07 PM, 23417

Lab ID: 1601860-005 Collection Date: 1/20/2016 11:22:00 AM
Client Sample ID: S3-10' Matrix: SOIL

Table with 7 columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 300.0: ANIONS, Chloride, 110, 30, mg/Kg, 20, 1/26/2016 12:53:32 PM, 23417

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

Table with 2 columns: Qualifiers and descriptions. Includes codes like *, D, H, ND, R, S, B, E, J, P, RL and their corresponding meanings.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601860

27-Jan-16

Client: Yates Petroleum Corporation

Project: Abby BLF State #1

Sample ID	MB-23417	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23417	RunNo:	31710					
Prep Date:	1/26/2016	Analysis Date:	1/26/2016	SeqNo:	970391	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23417	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	23417	RunNo:	31710					
Prep Date:	1/26/2016	Analysis Date:	1/26/2016	SeqNo:	970392	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

Qualifiers:

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

Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number: 1601860 RcptNo: 1

Received by/date: *[Signature]* *01/22/16*

Logged By: Lindsay Mangin 1/22/2016 9:40:00 AM *[Signature]*

Completed By: Lindsay Mangin 1/22/2016 10:59:55 AM *[Signature]*

Reviewed By: *mg* *01/25/16*

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° 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
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met?
(if no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 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	20	Good	Yes			

Chain-of-Custody Record

Client: Yates Petroleum Corporation

Mailing Address:

105 South 4th Street Artesia, NM 88210

Phone #: 575-703-6537

email or Fax#: csattle@yatespetroleum.com

QA/QC Package: Standard Level 4 (Full Validation)

Accreditation:

NELAP Other

EDD (Type)

Turn-Around Time:

Standard Rush

Project Name:

Abby BLF State #1

Project #:

30-025-38951

Project Manager:

Chase Settle

PO # 205. 0750

Sampler: Chase Settle

On Ice: Yes No

Sample Temperature: 7.0

Date Time Matrix Sample Request ID

1/20/2016	10:30a	Soil	S3-6'
1/20/2016	10:35a	Soil	S3-7'
1/20/2016	10:46a	Soil	S3-8'
1/20/2016	10:56a	Soil	S3-9'
1/20/2016	11:22a	Soil	S3-10'

Container Type and #

1 - 4oz.
1 - 4oz.
1 - 4oz.
1 - 4oz.
1 - 4oz.

Preservative Type

None
None
None
None
None

HEAL No.

1601860
-001
-002
-003
-004
-005

BTEX + MTBE + TMBs (8021)

BTEX + MTBE + TPH (Gas only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles (Y or N)

Analysis Request

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Received by: *[Signature]* Date: 1/22/16 Time: 0940

Received by: *[Signature]* Date: Time:

Remarks: