MARTIN YATES, III

FRANK W. YATES 1936-1986

> S.P YATES 1914-2008



JOHN A. YATES SR. CHAIRMAN EMERITUS

JOHN A. YATES JR.

DOUGLAS E. BROOKS

105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

September 8, 2016

Mr. Mike Bratcher/ Ms. Heather Patterson NMOCD District II 811 S. First St. Artesia, NM 88210

Re:

Federal AB #9

Unit N, Section 32, T18S-R25E Eddy County, New Mexico

Dear Mr. Bratcher / Ms. Patterson,

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 11, 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 September 22, 2016.

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

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle Environmental Representative

Enclosure(s)

Yates Petroleum Corporation

Federal AB #9 Work Plan

Section 32, T18S-R25E

Eddy County, New Mexico

September 8, 2016

2RP-3254

I. Location

Take HWY 285 south of Artesia for 9.1 miles, then turn west on West Kincaid Ranch Road and go 6 miles before taking a right at the Y intersection onto the lease road for 1.83 miles, then north for ½ a mile, then turn east for ¼ mile to the site.

II. Background

On September 11, 2015, Yates submitted to the NMOCD District II office a Form C-141 for a release of 10 B/O and 10 B/PW with none recovered. The affected area is approximately 30 feet by 100 feet adjacent to the flow line north of the pumping unit. Initial remediation activities consisted of excavating 3 to 6 inches in the S1 area to the rock plate and approximately 1 to 2 feet in the S2 area, hauling all impacted soils to an NMOCD approved facility for disposal. Initial delineation samples were taken (02/17/2016) and sent to a NMOCD approved laboratory (03/01/2016 and 03/01/2016, results enclosed). Further sampling was conducted (05/03/2016) and sent to a NMOCD approved laboratory (05/12/2016, results enclosed).

III. Surface and Ground Water

Area surface geology is Paleozoic Permian. The ChevronTexaco Trend Map displays at this location (Section 32, T18S-R25E) that depth to groundwater is approximately 235' 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:

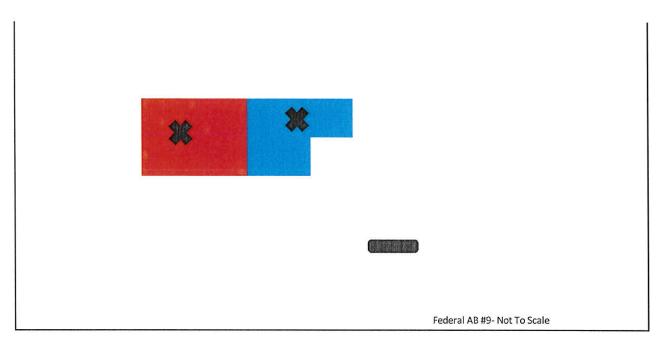
Depth to ground water > 100'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

IV. Soils

The release area consists of layered rock plate on the western half, and loamy topsoil interspersed with clay seams on the eastern half.

V. Scope of Work

Based on enclosed analytical results, the depth to ground water (235'), and a decrease in TPH, BTEX, & chloride concentration, Yates Petroleum Corporation proposes to excavate two (2) feet of impacted soil in the S1 release area and four (4) feet within the S2 release area, hauling excavated soils to an NMOCD approved facility for disposal. Yates will then backfill the S1 excavated area with two (2) feet of topsoil. A 20 ml synthetic liner will be installed in the bottom of the S2 excavated area prior to being backfilled with three (3) to four (4) feet of caliche and two (2) feet of topsoil. The remediated release area will then be seeded during Yates seeding schedule with a native grass seed mix developed using surface owner input. With such an extreme depth to groundwater (235') and a synthetic liner installed preventing an further migration of contaminants, 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.



S1 Release Area S2 Release Area

Area	Analysis Report	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1602859	2/17/2016	Backhoe	1'	562	3400	18000	960
S1-2'	1602859	2/17/2016	Backhoe	2'	912	5800	27000	68
S1-3'	1602859	2/17/2016	Backhoe	3'	5.62	60	270	38
S1-4'	1602859	2/17/2016	Backhoe	4'	ND	ND	ND	42
S2-1'	1602859	2/17/2016	Backhoe	1'	149.2	1200	12000	9600
S2-2'	1602859	2/17/2016	Backhoe	2'	284.7	2000	12000	8400
S2-3'	1602859	2/17/2016	Backhoe	3'	311	2500	15000	9900
S2-4'	1602859	2/17/2016	Backhoe	4'	269	1900	12000	9100
S2-5'	H600447	2/17/2016	Backhoe	5'	117	1150	4360	9400
S2-7'	H600447	2/17/2016	Backhoe	7'	111	1030	3500	12000
S2-9'	H600447	2/17/2016	Backhoe	9'	136	1040	3390	4080
S2-11'	H600447	2/17/2016	Backhoe	11'	0.809	15	109	2560
S2-13'	1605292	5/3/2016	Backhoe	13'	N/A	N/A	N/A	410
S2-15 [']	1605292	5/3/2016	Backhoe	15'	N/A	N/A	N/A	180
S2-17'	1605292	5/3/2016	Backhoe	17'	N/A	N/A	N/A	810
S2-19'	1605292	5/3/2016	Backhoe	19'	N/A	N/A	N/A	210
S2-20'	1605292	5/3/2016	Backhoe	20'	N/A	N/A	N/A	84

Site Ranking is Zero (0). >100' (235', Section 32, T18S-R25E, Trend Map All results are ppm. Chlorides for documentation

Released: 10 B/O & 10 B/PW; Recovered: 0 B/O & 0 B/PW Release Date: 09/01/2015



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

March 01, 2016

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

FAX

RE: Federal AB #9

OrderNo.: 1602859

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/19/2016 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 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-1'

Federal AB #9 Project:

Collection Date: 2/17/2016 8:12:00 AM

Lab ID: 1602859-001 Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF Date Analyzed Batcl
EPA METHOD 300.0: ANIONS				The second secon	Analyst: LGT
Chloride	960	30		mg/Kg	20 2/24/2016 10:27:36 PM 23934
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst: KJH
Diesel Range Organics (DRO)	18000	1000		mg/Kg	100 2/24/2016 1:01:45 PM 23859
Surr: DNOP	0	70-130	S	%Rec	100 2/24/2016 1:01:45 PM 23859
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	3400	96		mg/Kg	20 2/23/2016 10:22:49 AM 23860
Surr: BFB	447	66.2-112	S	%Rec	20 2/23/2016 10:22:49 AM 23860
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	32	0.96		mg/Kg	20 2/23/2016 10:22:49 AM 2386
Toluene	210	2.4		mg/Kg	50 2/24/2016 1:16:47 AM 2386
Ethylbenzene	130	2.4		mg/Kg	50 2/24/2016 1:16:47 AM 2386
Xylenes, Total	190	1.9		mg/Kg	20 2/23/2016 10:22:49 AM 2386
Surr: 4-Bromofluorobenzene	187	80-120	S	%Rec	20 2/23/2016 10:22:49 AM 2386

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
- 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
- Analyte detected below quantitation limits Page 1 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-2'

Project: Federal AB #9

Collection Date: 2/17/2016 8:16:00 AM

Lab ID: 1602859-002

Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: LGT
Chloride	68	30		mg/Kg	20 2/24/2016 10:40:00 PM 23934
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst: KJH
Diesel Range Organics (DRO)	27000	1000		mg/Kg	100 2/24/2016 1:23:36 PM 23859
Surr: DNOP	0	70-130	S	%Rec	100 2/24/2016 1:23:36 PM 23859
EPA METHOD 8015D: GASOLINE RANG	SE				Analyst: NSB
Gasoline Range Organics (GRO)	5800	240		mg/Kg	50 2/23/2016 10:46:16 AM 23866
Surr: BFB	366	66.2-112	S	%Rec	50 2/23/2016 10:46:16 AM 23866
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	52	2.4		mg/Kg	50 2/23/2016 10:46:16 AM 23866
Toluene	280	9.4		mg/Kg	200 2/24/2016 1:40:20 AM 23866
Ethylbenzene	200	2.4		mg/Kg	50 2/23/2016 10:46:16 AM 23866
Xylenes, Total	380	4.7		mg/Kg	50 2/23/2016 10:46:16 AM 23866
Surr: 4-Bromofluorobenzene	179	80-120	S	%Rec	50 2/23/2016 10:46:16 AM 23866

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 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-3'

Project: Federal AB #9

Collection Date: 2/17/2016 8:19:00 AM

Lab ID: 1602859-003 Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF Date Analyzed Bate
EPA METHOD 300.0: ANIONS					Analyst: LGT
Chloride	38	30		mg/Kg	20 2/24/2016 11:17:14 PM 2393
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANIC	3			Analyst: KJH
Diesel Range Organics (DRO)	270	9.2		mg/Kg	1 2/24/2016 11:56:45 AM 2386
Surr: DNOP	121	70-130		%Rec	1 2/24/2016 11:56:45 AM 2386
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: NSE
Gasoline Range Organics (GRO)	60	4.8		mg/Kg	1 2/24/2016 2:03:44 AM 2386
Surr: BFB	461	66.2-112	S	%Rec	1 2/24/2016 2:03:44 AM 2386
EPA METHOD 8021B: VOLATILES					Analyst: NSE
Benzene	ND	0.048		mg/Kg	1 2/24/2016 2:03:44 AM 2386
Toluene	0.62	0.048		mg/Kg	1 2/24/2016 2:03:44 AM 2386
Ethylbenzene	1.5	0.048		mg/Kg	1 2/24/2016 2:03:44 AM 2386
Xylenes, Total	3.5	0.096		mg/Kg	1 2/24/2016 2:03:44 AM 2386
Surr: 4-Bromofluorobenzene	157	80-120	S	%Rec	1 2/24/2016 2:03:44 AM 2386

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
- 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
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 12
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S1-4'

Federal AB #9 Project:

Collection Date: 2/17/2016 8:22:00 AM

Lab ID: 1602859-004

Matrix: SOIL Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	42	30	mg/Kg	20	2/24/2016 11:29:39 PM	1 23934
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	3			Analys	t: KJH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	2/24/2016 12:00:56 AM	1 23860
Surr: DNOP	105	70-130	%Rec	1	2/24/2016 12:00:56 AM	1 23860
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	2/24/2016 2:27:11 AM	23866
Surr: BFB	100	66.2-112	%Rec	1	2/24/2016 2:27:11 AM	23866
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.049	mg/Kg	1	2/24/2016 2:27:11 AM	23866
Toluene	ND	0.049	mg/Kg	1	2/24/2016 2:27:11 AM	23866
Ethylbenzene	ND	0.049	mg/Kg	1	2/24/2016 2:27:11 AM	23866
Xylenes, Total	ND	0.098	mg/Kg	1	2/24/2016 2:27:11 AM	23866
Surr: 4-Bromofluorobenzene	112	80-120	%Rec	1	2/24/2016 2:27:11 AM	23866

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
- В Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-1'

Federal AB #9 Project:

Collection Date: 2/17/2016 9:00:00 AM

Lab ID: 1602859-005 Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	9600	750		mg/Kg	500	2/26/2016 1:14:13 AM	23934
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S				Analyst	: KJH
Diesel Range Organics (DRO)	12000	930		mg/Kg	100	2/24/2016 1:45:24 PM	23860
Surr: DNOP	0	70-130	S	%Rec	100	2/24/2016 1:45:24 PM	23860
EPA METHOD 8015D: GASOLINE RAN	GE					Analyst	: NSB
Gasoline Range Organics (GRO)	1200	48		mg/Kg	10	2/23/2016 11:33:18 AM	23866
Surr: BFB	530	66.2-112	S	%Rec	10	2/23/2016 11:33:18 AM	23866
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	4.2	0.48		mg/Kg	10	2/23/2016 11:33:18 AM	23866
Toluene	39	0.48		mg/Kg	10	2/23/2016 11:33:18 AM	23866
Ethylbenzene	39	0.48		mg/Kg	10	2/23/2016 11:33:18 AM	23866
Xylenes, Total	67	0.97		mg/Kg	10	2/23/2016 11:33:18 AM	23866
Surr: 4-Bromofluorobenzene	187	80-120	S	%Rec	10	2/23/2016 11:33:18 AM	23866

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
- 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
- В Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 12
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-2'

Federal AB #9 Project:

Collection Date: 2/17/2016 9:01:00 AM

Lab ID: 1602859-006

Matrix: SOIL

Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: LGT
Chloride	8400	750		mg/Kg	500 2/26/2016 1:26:37 AM 23934
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	3			Analyst: KJH
Diesel Range Organics (DRO) Surr: DNOP	12000 0	1000 70-130	S	mg/Kg %Rec	100 2/24/2016 2:07:12 PM 23860 100 2/24/2016 2:07:12 PM 23860
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: NSB
Gasoline Range Organics (GRO) Surr: BFB	2000 232	250 66.2-112	s	mg/Kg %Rec	50 2/23/2016 11:56:50 AM 23866 50 2/23/2016 11:56:50 AM 23866
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	5.7	2.5		mg/Kg	50 2/23/2016 11:56:50 AM 23866
Toluene	79	2.5		mg/Kg	50 2/23/2016 11:56:50 AM 23866
Ethylbenzene	70	2.5		mg/Kg	50 2/23/2016 11:56:50 AM 23866
Xylenes, Total	130	4.9		mg/Kg	50 2/23/2016 11:56:50 AM 23866
Surr: 4-Bromofluorobenzene	141	80-120	S	%Rec	50 2/23/2016 11:56:50 AM 23866

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
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 12
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-3'

Project: Federal AB #9

Collection Date: 2/17/2016 9:04:00 AM

Lab ID: 1602859-007

Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	9900	750		mg/Kg	500	2/26/2016 1:39:01 AM	23934
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	6				Analyst	: KJH
Diesel Range Organics (DRO)	15000	960		mg/Kg	100	2/24/2016 2:28:53 PM	23860
Surr: DNOP	0	70-130	S	%Rec	100	2/24/2016 2:28:53 PM	23860
EPA METHOD 8015D: GASOLINE RA	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	2500	93		mg/Kg	20	2/23/2016 12:20:37 PM	23866
Surr: BFB	633	66.2-112	S	%Rec	20	2/23/2016 12:20:37 PM	23866
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	10	0.93		mg/Kg	20	2/23/2016 12:20:37 PM	23866
Toluene	87	0.93		mg/Kg	20	2/23/2016 12:20:37 PM	23866
Ethylbenzene	74	0.93		mg/Kg	20	2/23/2016 12:20:37 PM	23866
Xylenes, Total	140	1.9		mg/Kg	20	2/23/2016 12:20:37 PM	23866
Surr: 4-Bromofluorobenzene	181	80-120	S	%Rec	20	2/23/2016 12:20:37 PM	23866

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
- 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 7 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602859

Date Reported: 3/1/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: S2-4'

Project: Federal AB #9

Collection Date: 2/17/2016 9:07:00 AM

Lab ID: 1602859-008

Received Date: 2/19/2016 9:00:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analys	t: LGT
Chloride	9100	750		mg/Kg	500	2/26/2016 1:51:26 AM	23934
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S				Analys	t: KJH
Diesel Range Organics (DRO)	12000	1000		mg/Kg	100	2/24/2016 2:50:44 PM	23860
Surr: DNOP	0	70-130	S	%Rec	100	2/24/2016 2:50:44 PM	23860
EPA METHOD 8015D: GASOLINE RAN	IGE					Analys	t: NSB
Gasoline Range Organics (GRO)	1900	48		mg/Kg	10	2/23/2016 12:44:11 PM	A 23866
Surr: BFB	652	66.2-112	S	%Rec	10	2/23/2016 12:44:11 PM	A 23866
EPA METHOD 8021B: VOLATILES						Analys	t: NSB
Benzene	11	0.48		mg/Kg	10	2/23/2016 12:44:11 PM	A 23866
Toluene	85	2.4		mg/Kg	50	2/24/2016 2:50:30 AM	23866
Ethylbenzene	63	2.4		mg/Kg	50	2/24/2016 2:50:30 AM	23866
Xylenes, Total	110	0.96		mg/Kg	10	2/23/2016 12:44:11 PM	A 23866
Surr: 4-Bromofluorobenzene	215	80-120	S	%Rec	10	2/23/2016 12:44:11 PM	A 23866

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 8 of 12
- 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#:

1602859

01-Mar-16

Client:

Yates Petroleum Corporation

Project:

Federal AB #9

Sample ID MB-23934

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: **PBS**

Prep Date:

Sample ID LCS-23934

LCSS

2/24/2016

2/24/2016

Batch ID: 23934

RunNo: 32385

Analysis Date: 2/24/2016

SeqNo: 990234

Units: mg/Kg

Analyte

Result

PQL SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** Qual

Chloride

ND

1.5

SampType: LCS

Batch ID: 23934

Analysis Date: 2/24/2016

PQL

1.5

TestCode: EPA Method 300.0: Anions

RunNo: 32385

Units: mg/Kg

SeqNo: 990235

SPK value SPK Ref Val %REC LowLimit

%RPD **RPDLimit** Qual

Analyte

Result

95.9

HighLimit

Chloride

Client ID:

Prep Date:

15.00

0

14

90

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank \mathbf{B}
- 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

Page 9 of 12

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602859

01-Mar-16

Client:

Yates Petroleum Corporation

Project: Federal	AB #9			
Sample ID LCS-23859	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 23859	RunNo: 32327		5000)
Prep Date: 2/22/2016	Analysis Date: 2/23/2016	SeqNo: 988166	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 86.5 65.8	136	
Surr: DNOP	4.8 5.000	95.8 70	130	
Sample ID LCS-23860	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 23860	RunNo: 32327		
Prep Date: 2/22/2016	Analysis Date: 2/23/2016	SeqNo: 988167	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	45 10 50.00	0 90.5 65.8	136	
Surr: DNOP	5.0 5.000	99.1 70	130	
Sample ID MB-23859	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 23859	RunNo: 32327		
Prep Date: 2/22/2016	Analysis Date: 2/23/2016	SeqNo: 988168	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	ND 10			
Surr: DNOP	8.7 10.00	87.0 70	130	
Sample ID MB-23860	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 23860	RunNo: 32327		
Prep Date: 2/22/2016	Analysis Date: 2/23/2016	SeqNo: 988169	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	9.1 10.00	90.6 70	130	

- 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
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 10 of 12

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

Hall Environmental Analysis Laboratory, Inc.

WO#:

1602859

01-Mar-16

Client:

Yates Petroleum Corporation

Project:

Federal AB #9

Sample ID MB-23866	SampTy	pe: MB	LK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch	ID: 23 8	366	F	RunNo: 32	2332				
Prep Date: 2/22/2016	Analysis Date: 2/23/2016			8	SeqNo: 98	38952	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.4	66.2	112	and the second s	The Arms of the San	
Sample ID LCS-23866	SampTy	pe: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch	ID: 238	366	F	RunNo: 3	2332				
Prep Date: 2/22/2016	Analysis Da	ate: 2/	23/2016	S	SeqNo: 9	88963	Units: mg/k	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	79.6	122			
Surr: BFB	1100		1000		113	66.2	112			S

Qualifiers:

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

Page 11 of 12

- 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#:

1602859

01-Mar-16

Client:

Yates Petroleum Corporation

Project:

Federal AB #9

Sample ID MB-23866	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	tch ID: 23866		RunNo: 32332						
Prep Date: 2/22/2016	Analysis D	ate: 2/	23/2016	S	SeqNo: 9	89021	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050	HOUSE CONTRACTOR OF THE SECOND							
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID LCS-23866	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	n ID: 23	866	F	RunNo: 3	2332				
Prep Date: 2/22/2016	Analysis D	oate: 2/	23/2016	8	SeqNo: 9	89022	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Qualifiers:

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

Page 12 of 12



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 Petro	leum Corpora Work O	rder Number: 16	602859		RcptNo: 1	
Received by/date:	02/10	NU				
Logged By: Ashley Ga	llegos 2/19/2016	9:00:00 AM		A		
Completed By: Ashley Ga	ilegos 2/19/2016	3:34:28 PM		A		
Reviewed By: A 0	2/22/16			Y		
Chain of Custody						
1. Custody seals intact on s	ample bottles?	e.	Yes 🗌	No 🗆	Not Present 🗹	
2. Is Chain of Custody com		÷.	Yes 🗹	No 🗆	Not Present	
3. How was the sample deli	vered?	9	<u>Courier</u>			
Log In						
4. Was an attempt made to	cool the samples?	¥	Yes 🗹	No 🗆	na □	
5. Were all samples receive	ed at a temperature of >0° C	to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) in proper con	tainer(s)?		Yes 🗹	No 🗆		
7. Sufficient sample volume	e for indicated test(s)?		Yes 🗸	No 🗆		
	A and ONG) properly preserv	red?	Yes 🗸	No 🗆		
9. Was preservative added	1205		Yes 🗌	No 🗹	na 🗆	
10.VOA vials have zero hea	adspace?		Yes	No 🗆	No VOA Vials 🗹	
11. Were any sample conta			Yes	No 🗹		
					# of preserved bottles checked	
12.Does paperwork match			Yes 🗸	No 🗆	for pH:	>12 unless noted)
(Note discrepancies on		_	🖼	No □	Adjusted?	> 12 dilless floted)
	lentified on Chain of Custody?	?	Yes 🗹	No 🗆	_	
14. Is it clear what analyses			Yes 🗹	No 🗆	Checked by:	
15. Were all holding times a (If no, notify customer for			Yes 🗹	140 🗀 📗		
Special Handling (if a		•	Yes 🗌	No □	NA 🗹	
	I discrepancies with this order		103 []			1
Person Notified:		Date	¬	Dhans 🗀 Eav	☐ In Person	
By Whom:	CONTROL DE LA CO	Via:	_ eMail	Phone Fax	III Leison	
Regarding:		TO PRODUCE A CONTROL OF	un dask seine et il	Kuran a sanaan kanaan kana		
Client Instruction	s:				100]) .
17. Additional remarks:						
18. Cooler Information	6	2		0.000		
Cooler No Temp		t Seal No	Seal Date	Signed By	-	
1 4.1	Good Yes		. ,	L	1	

Œ	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109		Analys	POS	' ^р Ос	Z8	(1.8 (1.4((H∧ 08 1) (A	Sej ON Sju	bor no A lets (AC, ni-in	TPH Methory PPH (Methors) (PM (PM 8310 (P, Anions (F, 8081 Pestons) (V) 8270 (Sentons)	×	×	×	×	×	×	×	×					f 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.
			4901	Tel.		ouly	SBE) H	dL.	+ <u>=</u>	181	BLEX + M	×	×	_×	_×	×	×	×	×	-	Remarks:			ssibility. A
d Time:	rc 🗆 Rush		Federal AB #9		30-015-23643			PO # 205. 0750	Settle		mperature 4./	r Preservative HEALING X Type TOONSESS E	ICE	ICE -009 ×	ICE -003 ×	× 700- 10E	ICE -005 ×	X U)Q)- X	ICEX	ICE -UDS X		Date Time Re	Met 02/19/16 0900	Date Time	er accredited laboratories. This serves as notice of this por
Turn-Around Time:	X Standard	Project Name		Project #:		Project Manager			Sampler:	On Ice:	O.	Container Type and #	1 - 402.	1 - 4oz.	1 - 4oz.	1 - 40Z.	1 - 4oz.	1 - 4oz.	1 - 4oz.	1 - 402.		Received by:	Bril	Received by:	contracted to other
Chain-of-Custody Record				88210		spetroleum.com		☐ Level 4 (Full Validation)		□ Other		Matrix Sample Request ID	S1-1'	S1-2'	S1-3'	S1-4'	S2-1'	S2-2'	S2-3′	Soil S2-4'		V 1. L	Mass Suttle	Relinquished by:	amples submitted to Hall Environmental may be subc
Chain-of	ient: Yates Petro		ailing Address:	15 South 4th Street Artesia, NM	hone #: 57	ax#:	A/QC Package:	l Standard	on:	I NELAP	1 EDD (Type)			470045 8:16A SC			3C A22.0 9.02.2		1			i	4-16 8:00pm /	Time:	If necessary, sa



March 01, 2016

CHASE SETTLE
YATES PETROLEUM CORPORATION
105 S 4th Street

Artesia, NM 88210 RE: FEDERAL AB #9

Enclosed are the results of analyses for samples received by the laboratory on 02/29/16 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keine

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



YATES PETROLEUM CORPORATION CHASE SETTLE 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

02/29/2016

Reported:

03/01/2016

Project Name:

FEDERAL AB #9 NONE GIVEN

Project Number: Project Location:

NOT GIVEN

Sampling Date:

02/17/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S2-5' (H600447-01)

BTEX 8021B		mg/kg
And the second s	in animalian and a second and a second	

BTEX 8021B	mg	/kg	Analyze	d By: MS					***
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.04	1.00	02/29/2016	ND	1.87	93.6	2.00	0.351	
Toluene*	31.5	1.00	02/29/2016	ND	1.81	90.3	2.00	0.547	
Ethylbenzene*	27.0	1.00	02/29/2016	ND	1.63	81.4	2.00	1.12	
Total Xylenes*	55.5	3.00	02/29/2016	ND	5.01	83.6	6.00	1.30	
Total BTEX	117	6.00	02/29/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL

102 %

73.6-140

Sim rogano. I Bromojimorocemzene (x 12		, , , , , , , , , , , , , , , , , , , ,	6						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	03/01/2016	ND	448	112	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1150	10.0	02/29/2016	ND	197	98.4	200	2.97	
DRO >C10-C28	4360	10.0	02/29/2016	ND	223	112	200	10.2	

Surrogate: 1-Chlorooctane

170 %

35-147

Surrogate: 1-Chlorooctadecane

137 %

28-171

Cardinal Laboratories

*=Accredited Analyte

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Celeg Direns

Celey D. Keene, Lab Director/Quality Manager



YATES PETROLEUM CORPORATION CHASE SETTLE 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received: Reported: 02/29/2016

03/01/2016

FEDERAL AB #9

Project Number: Project Location:

Project Name:

NONE GIVEN NOT GIVEN

Sampling Date:

02/17/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S2-7' (H600447-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.58	1.00	02/29/2016	ND	1.87	93.6	2.00	0.351	
Toluene*	33.0	1.00	02/29/2016	ND	1.81	90.3	2.00	0.547	
Ethylbenzene*	25.0	1.00	02/29/2016	ND	1.63	81.4	2.00	1.12	
Total Xylenes*	49.2	3.00	02/29/2016	ND	5.01	83.6	6.00	1.30	
Total BTEX	111	6.00	02/29/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103	% 73.6-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	03/01/2016	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1030	10.0	02/29/2016	ND	197	98.4	200	2.97	
DRO >C10-C28	3500	10.0	02/29/2016	ND	223	112	200	10.2	
Surrogate: 1-Chlorooctane	151	% 35-147	7		3100 300 3110 3				
Surrogate: 1-Chlorooctadecane	120	% 28-171	į.						

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*=Accredited Analyte

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Celeg Thema-



YATES PETROLEUM CORPORATION CHASE SETTLE 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received: Reported: 02/29/2016

03/01/2016

Project Name: Project Number: FEDERAL AB #9 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

02/17/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S2-9' (H600447-03)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.97	1.00	03/01/2016	ND	1.87	93.6	2.00	0.351	
Toluene*	39.7	1.00	03/01/2016	ND	1.81	90.3	2.00	0.547	
Ethylbenzene*	30.8	1.00	03/01/2016	ND	1.63	81.4	2.00	1.12	
Total Xylenes*	61.8	3.00	03/01/2016	ND	5.01	83.6	6.00	1.30	
Total BTEX	136	6.00	03/01/2016	ND					<u>-</u>

Surrogate: 4-Bromofluorobenzene (PIL	105	% /3.0-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP			National Annual Control of Contro		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	03/01/2016	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1040	10.0	02/29/2016	ND	197	98.4	200	2.97	
DRO >C10-C28	3390	10.0	02/29/2016	ND	223	112	200	10.2	

Surrogate: 1-Chlorooctane

155 %

35-147

Surrogate: 1-Chlorooctadecane

124%

28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Krene-

Celey D. Keene, Lab Director/Quality Manager



YATES PETROLEUM CORPORATION CHASE SETTLE 105 S 4th Street Artesia NM, 88210 (505) 748-4635

Fax To:

Received:

02/29/2016

Reported:

03/01/2016

Project Name: Project Number: FEDERAL AB #9 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

02/17/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S2-11' (H600447-04)

BTEX 8021B	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.052	0.050	03/01/2016	ND	1.87	93.6	2.00	0.351	
Toluene*	0.229	0.050	03/01/2016	ND	1.81	90.3	2.00	0.547	
Ethylbenzene*	0.140	0.050	03/01/2016	ND	1.63	81.4	2.00	1.12	
Total Xylenes*	0.387	0.150	03/01/2016	ND	5.01	83.6	6.00	1.30	
Total BTEX	0.809	0.300	03/01/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	100	% 73.6-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	03/01/2016	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.0	10.0	02/29/2016	ND	197	98.4	200	2.97	
DRO >C10-C28	109	10.0	02/29/2016	ND	223	112	200	10.2	
Surrogate: 1-Chlorooctane	96.6	% 35-147	7						

Surrogate: 1-Chlorooctadecane

97.5 %

28-171

Cardinal Laboratories

*=Accredited Analyte

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Celler Ditreme -



Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

ecovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey & Krene

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	2.2											FIELD CODE	H600447				ip: Artesia, NM 88210	Company Address: 105 South 4th Street	326	ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 Manager: Chase Settle
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Time	Time		+		+	+						Ending Depth								
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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

May 12, 2016

Chase Settle

Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210

TEL: (575) 748-4111

FAX

RE: Federal AB 9 OrderNo.: 1605292

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 5 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

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1605292

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/12/2016

CLIENT: Yates Petroleum Corporation Lab Order: 1605292 Federal AB 9 Project: Lab ID: 1605292-001 Collection Date: 5/3/2016 12:03:00 PM Client Sample ID: S2-13' Matrix: SOIL PQL Qual Units Analyses Result **DF** Date Analyzed Batch ID **EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 410 30 mg/Kg 20 5/11/2016 6:52:24 PM 25270 Lab ID: 1605292-002 Collection Date: 5/3/2016 12:15:00 PM Client Sample ID: S2-15' Matrix: SOIL Analyses Result **PQL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 180 30 mg/Kg 20 5/11/2016 7:04:48 PM 25270 Lab ID: 1605292-003 Collection Date: 5/3/2016 12:31:00 PM Client Sample ID: S2-17' Matrix: SOIL DF Date Analyzed Analyses Result PQL Qual Units **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 810 30 mg/Kg 5/11/2016 7:17:13 PM 25270 Lab ID: 1605292-004 Collection Date: 5/3/2016 12:41:00 PM Client Sample ID: S2-19' Matrix: SOIL Result PQL Qual Units Analyses **DF** Date Analyzed **Batch ID EPA METHOD 300.0: ANIONS** Analyst: LGT Chloride 210 30 mg/Kg 20 5/11/2016 7:29:38 PM 25270 Lab ID: 1605292-005 Collection Date: 5/3/2016 12:56:00 PM Client Sample ID: S2-20' Matrix: SOIL **DF** Date Analyzed Analyses Result POL Qual Units Batch ID **EPA METHOD 300.0: ANIONS** Analyst: LGT

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

30

mg/Kg

84

Qualifiers:

Chloride

- 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

20 5/11/2016 7:42:02 PM 25270

- 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#:

1605292

12-May-16

Client:

Yates Petroleum Corporation

Result

ND

Project:

Federal AB 9

Sample ID MB-25270

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 25270

PQL

1.5

RunNo: 34141

Analyte

Prep Date: 5/11/2016

Analysis Date: 5/11/2016

SeqNo: 1052628

%REC LowLimit

Units: mg/Kg HighLimit

%RPD **RPDLimit** Qual

Chloride

SampType: Ics

TestCode: EPA Method 300.0: Anions

RunNo: 34141

LCSS

Sample ID LCS-25270

Batch ID: 25270

PQL

Units: mg/Kg

Prep Date: 5/11/2016 Analysis Date: 5/11/2016

SeqNo: 1052629

%RPD

Analyte

Client ID:

Result

SPK value SPK Ref Val %REC

SPK value SPK Ref Val

95.1

LowLimit

HighLimit

RPDLimit

Qual

Chloride

14

15.00

1.5 90 110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- 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

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

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 2 of 2



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 Corpora	Work Order Number:	16052	292	Characteristic and a stage of	***************************************	Rcpl	:No: 1
Received by/date:	10	A= Incolle	7					
Logged By: Aship	Gallegos	5/6/2016 10:35:00 AM	,		A	al .		
V	y Gallegos	5/6/2016 11:17:48 AM			A)			
Reviewed By:		146			347			
Chain of Custody	Ja .	05/06/16						
1. Custody seals intact	on sample bottles?		Yes	[:]	No	[.]	Not Present	[<u>a</u> p]
2. Is Chain of Custody	complete?		Yes		No	[]	Not Present	[.]
3. How was the sample	e delivered?		Cour	ier				
<u>Log In</u>					•			
4. Was an attempt ma	de to cool the sample	s?	Yes		No		NA	
5. Were all samples re	ceived at a temperatu	re of >0° C to 6.0°C	Yes		No 3	<u>[]</u>	NA	T1
6. Sample(s) in proper	container(s)?		Yes		No	[]		
7. Sufficient sample vo	olume for indicated tes	et(e)?	Yes		No	[]		
8. Are samples (excep	t VOA and ONG) prop	erly preserved?	Yes		No	[.]		
9. Was preservative a	ided to bottles?		Yes		No		NA	
10.VOA vials have zero	headspace?		Yes	[]	No		No VOA Vials	
11. Were any sample o	ontainers received bro	oken?	Yes		No			
							# of preserved bottles checked	d
12. Does paperwork ma	tch bottle labels? on chain of custody)		Yes		No		for pH:	(<2 or >12 valons noted)
13. Are matrices correc		of Custody?	Yes	<u></u>	No	["]	Adjusted	(<2 or >12 unless noted)
14. Is it clear what analy			Yes		No			
15. Were all holding tim					No		Checked	by:
(If no, notify custom	er for authorization.)							
Special Handling (if applicable)							
16. Was client notified of		th this order?	Yes		No	:]	NA	hado'i
Person Notifie	rq.				A-4.194.AL-16'2444.AL-15'.29'	-ALTONIAL	1.4.1	
By Whom:	T	Date Via: [sit ["]	Phone []	Fav.	["] In Darram	
Regarding:	Phagmace:	VIA.	-1 GIAIS	MEXILIALS:	THORE	rdx	[] In Person	5.42
Client Instruct	ions:	immum vanadnyst me and principle deleter, is approximate appendig out obtained by Comment and an	EN inest bioris	liikida dikir.	menterapryma a gracous radiosida	terstication	والمراجع والمراجع والموجود وجوجها مستحاصاتها	-00AA
17. Additional remarks	•							
18. Cooler Informatio	<u>n</u>							
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				Project	Name:					3	www.hallenvironmental.com	enviror	ment	Com			
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105 South 4th Street	h Stre	et Artes	Artesia, NM 88210	Project#:	#			•	Tel. 5(Tel. 505-345-3975	3975	Fax	505-3	505-345-4107	20		
Phone #:	57	575-703-6537	537			30-015-23643	643				A	Analysis Request	Redu	est			
email or Fax#:		ettle@ye	petroleum.com	Project Manager:	Marag	er:						(°C		_			-
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□ Standard		U	☐ Level 4 (Full Validation)		ш	PO # 205, 0750	90		THE RESERVE TO A	T CONTRACTOR		Od,					
Accreditation:	<u>.</u>			Sample		Shase Settle			-		-	OV		The Belleville Show			(
□ NELAP		□ Other		On Ice:		□ Yes	No X	Time Committee			-	TO SECURE	THE REAL PROPERTY.	IV			N J
☐ EDD (Type)				Sample T	E	emperature: $/\beta$.	છ	Nan-okasine			nanament (************	ေခ		**********	Northwest	0 人
Date Time		Matrix	Sample Request ID	Container Type and #	THE RESERVE OF THE PROPERTY OF	Preservative Type	HEAL NO.	BLEX + ML	May Hat	TPH (Metho	VNG) 0168	oM & A£IOR O ,∃) anoinA	oileog 1808	8350 (Seun 8350 (AOV		The state of the s	ı zəlddu8 viA
s/3/2016 12:03P	3P Soil	污	\$2.13	1-402.		None	100-			White ou	-		Panti-	1			- Combine
5/3/2016 12:15P	Soil Soil	dan tradi	\$2-15	1 - 40Z.	-	None	-03		TEXAME			×					-
5/3/2016 12:31P		due-of # 1998	\$2-17	1-40Z		None	-683			- Principalisa	authoritanniyoo	×					
S/3/2016 12:41P	1P Soil	· · · · · · · · · · · · · · · · · · ·	\$2-19'	1 - 40Z.		None	787	etome inte	COORTICE TOLING	- MANGEMANN	West makes	×				Alencia	
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