



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

February 18, 2016

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

RE: Juniper BIP Federal Battery

OrderNo.: 1602541

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 9 sample(s) on 2/12/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 1-1'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 9:34:00 AM**Lab ID:** 1602541-001**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	7300	97		mg/Kg	10	2/16/2016 7:03:01 PM	23734
Surr: DNOP	0	70-130	S	%Rec	10	2/16/2016 7:03:01 PM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	3100	230		mg/Kg	50	2/15/2016 12:13:51 PM	23710
Surr: BFB	246	66.2-112	S	%Rec	50	2/15/2016 12:13:51 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	10	2.3		mg/Kg	50	2/15/2016 12:13:51 PM	23710
Toluene	120	2.3		mg/Kg	50	2/15/2016 12:13:51 PM	23710
Ethylbenzene	37	2.3		mg/Kg	50	2/15/2016 12:13:51 PM	23710
Xylenes, Total	170	4.7		mg/Kg	50	2/15/2016 12:13:51 PM	23710
Surr: 4-Bromofluorobenzene	143	80-120	S	%Rec	50	2/15/2016 12:13:51 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 1-2'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 9:42:00 AM**Lab ID:** 1602541-002**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	900	98		mg/Kg	10	2/17/2016 9:36:56 AM	23734
Surr: DNOP	0	70-130	S	%Rec	10	2/17/2016 9:36:56 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	530	49		mg/Kg	10	2/15/2016 7:38:53 PM	23710
Surr: BFB	265	66.2-112	S	%Rec	10	2/15/2016 7:38:53 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.40	0.25		mg/Kg	10	2/15/2016 7:38:53 PM	23710
Toluene	8.7	0.49		mg/Kg	10	2/15/2016 7:38:53 PM	23710
Ethylbenzene	5.6	0.49		mg/Kg	10	2/15/2016 7:38:53 PM	23710
Xylenes, Total	28	0.99		mg/Kg	10	2/15/2016 7:38:53 PM	23710
Surr: 4-Bromofluorobenzene	140	80-120	S	%Rec	10	2/15/2016 7:38:53 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-3'

Project: Juniper BIP Federal Battery

Collection Date: 2/9/2016 9:54:00 AM

Lab ID: 1602541-003

Matrix: SOIL

Received Date: 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	860	98		mg/Kg	10	2/17/2016 9:58:20 AM	23734
Surr: DNOP	0	70-130	S	%Rec	10	2/17/2016 9:58:20 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	630	49		mg/Kg	10	2/15/2016 8:02:24 PM	23710
Surr: BFB	337	66.2-112	S	%Rec	10	2/15/2016 8:02:24 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.33	0.25		mg/Kg	10	2/15/2016 8:02:24 PM	23710
Toluene	8.4	0.49		mg/Kg	10	2/15/2016 8:02:24 PM	23710
Ethylbenzene	5.7	0.49		mg/Kg	10	2/15/2016 8:02:24 PM	23710
Xylenes, Total	28	0.98		mg/Kg	10	2/15/2016 8:02:24 PM	23710
Surr: 4-Bromofluorobenzene	144	80-120	S	%Rec	10	2/15/2016 8:02:24 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-1'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:06:00 AM**Lab ID:** 1602541-004**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	5400	94		mg/Kg	10	2/16/2016 9:10:47 PM	23734
Surr: DNOP	0	70-130	S	%Rec	10	2/16/2016 9:10:47 PM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5100	490		mg/Kg	100	2/15/2016 1:24:15 PM	23710
Surr: BFB	167	66.2-112	S	%Rec	100	2/15/2016 1:24:15 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	33	4.9		mg/Kg	100	2/15/2016 1:24:15 PM	23710
Toluene	210	4.9		mg/Kg	100	2/15/2016 1:24:15 PM	23710
Ethylbenzene	52	4.9		mg/Kg	100	2/15/2016 1:24:15 PM	23710
Xylenes, Total	240	9.8		mg/Kg	100	2/15/2016 1:24:15 PM	23710
Surr: 4-Bromofluorobenzene	133	80-120	S	%Rec	100	2/15/2016 1:24:15 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-2'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:13:00 AM**Lab ID:** 1602541-005**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	76	9.6		mg/Kg	1	2/16/2016 9:53:21 PM	23734
Surr: DNOP	85.9	70-130		%Rec	1	2/16/2016 9:53:21 PM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	67	4.9		mg/Kg	1	2/15/2016 8:25:55 PM	23710
Surr: BFB	370	66.2-112	S	%Rec	1	2/15/2016 8:25:55 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.058	0.049		mg/Kg	1	2/15/2016 8:25:55 PM	23710
Toluene	0.52	0.049		mg/Kg	1	2/15/2016 8:25:55 PM	23710
Ethylbenzene	0.52	0.049		mg/Kg	1	2/15/2016 8:25:55 PM	23710
Xylenes, Total	2.9	0.099		mg/Kg	1	2/15/2016 8:25:55 PM	23710
Surr: 4-Bromofluorobenzene	156	80-120	S	%Rec	1	2/15/2016 8:25:55 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-3'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:17:00 AM**Lab ID:** 1602541-006**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	1100	93		mg/Kg	10	2/17/2016 10:19:42 AM	23734
Surr: DNOP	0	70-130	S	%Rec	10	2/17/2016 10:19:42 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	320	23		mg/Kg	5	2/15/2016 8:49:27 PM	23710
Surr: BFB	301	66.2-112	S	%Rec	5	2/15/2016 8:49:27 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.25	0.23		mg/Kg	5	2/15/2016 8:49:27 PM	23710
Toluene	6.5	0.23		mg/Kg	5	2/15/2016 8:49:27 PM	23710
Ethylbenzene	3.4	0.23		mg/Kg	5	2/15/2016 8:49:27 PM	23710
Xylenes, Total	16	0.47		mg/Kg	5	2/15/2016 8:49:27 PM	23710
Surr: 4-Bromofluorobenzene	148	80-120	S	%Rec	5	2/15/2016 8:49:27 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 3-1'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:25:00 AM**Lab ID:** 1602541-007**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	11000	930		mg/Kg	100	2/17/2016 10:41:11 AM	23734
Surr: DNOP	0	70-130	S	%Rec	100	2/17/2016 10:41:11 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6800	470		mg/Kg	100	2/15/2016 6:28:27 PM	23710
Surr: BFB	162	66.2-112	S	%Rec	100	2/15/2016 6:28:27 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	85	4.7		mg/Kg	100	2/15/2016 6:28:27 PM	23710
Toluene	360	4.7		mg/Kg	100	2/15/2016 6:28:27 PM	23710
Ethylbenzene	80	4.7		mg/Kg	100	2/15/2016 6:28:27 PM	23710
Xylenes, Total	350	9.5		mg/Kg	100	2/15/2016 6:28:27 PM	23710
Surr: 4-Bromofluorobenzene	132	80-120	S	%Rec	100	2/15/2016 6:28:27 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 3-2'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:30:00 AM**Lab ID:** 1602541-008**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	28	9.7		mg/Kg	1	2/17/2016 12:00:38 AM	23734
Surr: DNOP	93.2	70-130		%Rec	1	2/17/2016 12:00:38 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	29	4.6		mg/Kg	1	2/16/2016 1:36:14 PM	23710
Surr: BFB	213	66.2-112	S	%Rec	1	2/16/2016 1:36:14 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.054	0.046		mg/Kg	1	2/16/2016 1:36:14 PM	23710
Toluene	0.27	0.046		mg/Kg	1	2/16/2016 1:36:14 PM	23710
Ethylbenzene	0.22	0.046		mg/Kg	1	2/16/2016 1:36:14 PM	23710
Xylenes, Total	1.2	0.092		mg/Kg	1	2/16/2016 1:36:14 PM	23710
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	1	2/16/2016 1:36:14 PM	23710

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

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

Analytical Report

Lab Order 1602541

Date Reported: 2/18/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 3-3'**Project:** Juniper BIP Federal Battery**Collection Date:** 2/9/2016 10:35:00 AM**Lab ID:** 1602541-009**Matrix:** SOIL**Received Date:** 2/12/2016 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	50	9.7		mg/Kg	1	2/17/2016 12:42:57 AM	23734
Surr: DNOP	114	70-130		%Rec	1	2/17/2016 12:42:57 AM	23734
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	17	4.7		mg/Kg	1	2/16/2016 2:17:20 PM	23710
Surr: BFB	173	66.2-112	S	%Rec	1	2/16/2016 2:17:20 PM	23710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	2/16/2016 2:17:20 PM	23710
Toluene	0.087	0.047		mg/Kg	1	2/16/2016 2:17:20 PM	23710
Ethylbenzene	0.090	0.047		mg/Kg	1	2/16/2016 2:17:20 PM	23710
Xylenes, Total	0.56	0.093		mg/Kg	1	2/16/2016 2:17:20 PM	23710
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	1	2/16/2016 2:17:20 PM	23710

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602541

18-Feb-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-23734	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23734	RunNo:	32179					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983681	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	9.6		10.00		95.7	70	130			

Sample ID	MB-23739	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23739	RunNo:	32179					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983682	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.1	70	130			

Sample ID	LCS-23734	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23734	RunNo:	32179					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983683	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	108	65.8	136			
Surr: DNOP	5.3		5.000		106	70	130			

Sample ID	LCS-23739	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23739	RunNo:	32179					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983684	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.5	70	130			

Sample ID	MB-23771	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	23771	RunNo:	32179					
Prep Date:	2/17/2016	Analysis Date:	2/17/2016	SeqNo:	984150	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.3		10.00		73.4	70	130			

Sample ID	LCS-23771	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	23771	RunNo:	32179					
Prep Date:	2/17/2016	Analysis Date:	2/17/2016	SeqNo:	984152	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		73.3	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
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602541

18-Feb-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-23710	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: 23710			RunNo: 32139					
Prep Date:	2/12/2016	Analysis Date: 2/15/2016			SeqNo: 982929		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	940		1000		94.0	66.2	112			

Sample ID	LCS-23710		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 23710		RunNo: 32139					
Prep Date:	2/12/2016		Analysis Date: 2/15/2016		SeqNo: 982930		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	79.6	122			
Surr: BFB	1000		1000		100	66.2	112			

Sample ID	MB-23733	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23733	RunNo:	32174					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983808	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.5	66.2	112			

Sample ID	LCS-23733	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23733	RunNo:	32174					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983809	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.5	66.2	112			

Sample ID	MB-23727	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	23727		RunNo:	32174				
Prep Date:	2/15/2016	Analysis Date:	2/16/2016		SeqNo:	983818	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		91.5	66.2	112			

Sample ID	LCS-23727	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23727	RunNo:	32174					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983819	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	66.2	112			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602541

18-Feb-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-23710		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 23710	RunNo: 32139						
Prep Date:	2/12/2016		Analysis Date: 2/15/2016	SeqNo: 982953		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: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	LCS-23710		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 23710	RunNo: 32139						
Prep Date:	2/12/2016		Analysis Date: 2/15/2016	SeqNo: 982954		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	80	120			
Toluene	1.2	0.050	1.000	0	119	80	120			
Ethylbenzene	1.2	0.050	1.000	0	117	80	120			
Xylenes, Total	3.5	0.10	3.000	0	118	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		123	80	120			S

Sample ID	MB-23733		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 23733	RunNo: 32174						
Prep Date:	2/15/2016		Analysis Date: 2/16/2016	SeqNo: 983840		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID	LCS-23733		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 23733	RunNo: 32174						
Prep Date:	2/15/2016		Analysis Date: 2/16/2016	SeqNo: 983841		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	MB-23727		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 23727	RunNo: 32174						
Prep Date:	2/15/2016		Analysis Date: 2/16/2016	SeqNo: 983846		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602541

18-Feb-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	LCS-23727	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	23727	RunNo:	32174					
Prep Date:	2/15/2016	Analysis Date:	2/16/2016	SeqNo:	983847	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

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



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: 1602541

RcptNo: 1

Received by/date:

JA

02/12/16

Logged By: Ashley Gallegos

2/12/2016 9:35:00 AM

Ag

Completed By: Ashley Gallegos

2/12/2016 10:33:43 AM

Ag

Reviewed By:

IO

02/12/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



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

March 15, 2016

Amber Griffin

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

RE: Juniper BIP Federal Battery

OrderNo.: 1603548

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/10/2016 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 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 1603548

Date Reported: 3/15/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 1-4'**Project:** Juniper BIP Federal Battery**Collection Date:** 3/8/2016 9:40:00 AM**Lab ID:** 1603548-001**Matrix:** SOIL**Received Date:** 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/11/2016 6:08:03 PM	24190
Surr: DNOP	88.2	70-130		%Rec	1	3/11/2016 6:08:03 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/11/2016 4:34:02 PM	24193
Surr: BFB	89.6	66.2-112		%Rec	1	3/11/2016 4:34:02 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	3/11/2016 4:34:02 PM	24193
Toluene	ND	0.049		mg/Kg	1	3/11/2016 4:34:02 PM	24193
Ethylbenzene	ND	0.049		mg/Kg	1	3/11/2016 4:34:02 PM	24193
Xylenes, Total	ND	0.098		mg/Kg	1	3/11/2016 4:34:02 PM	24193
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	3/11/2016 4:34:02 PM	24193

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

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

Analytical Report

Lab Order 1603548

Date Reported: 3/15/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 1-5'**Project:** Juniper BIP Federal Battery**Collection Date:** 3/8/2016 9:43:00 AM**Lab ID:** 1603548-002**Matrix:** SOIL**Received Date:** 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2016 6:30:04 PM	24190
Surr: DNOP	92.2	70-130		%Rec	1	3/11/2016 6:30:04 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/11/2016 4:58:33 PM	24193
Surr: BFB	86.5	66.2-112		%Rec	1	3/11/2016 4:58:33 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/11/2016 4:58:33 PM	24193
Toluene	ND	0.046		mg/Kg	1	3/11/2016 4:58:33 PM	24193
Ethylbenzene	ND	0.046		mg/Kg	1	3/11/2016 4:58:33 PM	24193
Xylenes, Total	ND	0.093		mg/Kg	1	3/11/2016 4:58:33 PM	24193
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	3/11/2016 4:58:33 PM	24193

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603548

Date Reported: 3/15/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-6'

Project: Juniper BIP Federal Battery

Collection Date: 3/8/2016 9:52:00 AM

Lab ID: 1603548-003

Matrix: SOIL

Received Date: 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	3/11/2016 6:52:09 PM	24190
Surr: DNOP	97.5	70-130		%Rec	1	3/11/2016 6:52:09 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/11/2016 5:23:03 PM	24193
Surr: BFB	90.7	66.2-112		%Rec	1	3/11/2016 5:23:03 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/11/2016 5:23:03 PM	24193
Toluene	ND	0.046		mg/Kg	1	3/11/2016 5:23:03 PM	24193
Ethylbenzene	ND	0.046		mg/Kg	1	3/11/2016 5:23:03 PM	24193
Xylenes, Total	ND	0.093		mg/Kg	1	3/11/2016 5:23:03 PM	24193
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	3/11/2016 5:23:03 PM	24193

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

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

Analytical Report

Lab Order 1603548

Date Reported: 3/15/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-4'**Project:** Juniper BIP Federal Battery**Collection Date:** 3/8/2016 10:08:00 AM**Lab ID:** 1603548-004**Matrix:** SOIL**Received Date:** 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2016 7:14:08 PM	24190
Surr: DNOP	82.8	70-130		%Rec	1	3/11/2016 7:14:08 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/11/2016 5:47:30 PM	24193
Surr: BFB	86.4	66.2-112		%Rec	1	3/11/2016 5:47:30 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/11/2016 5:47:30 PM	24193
Toluene	ND	0.049		mg/Kg	1	3/11/2016 5:47:30 PM	24193
Ethylbenzene	ND	0.049		mg/Kg	1	3/11/2016 5:47:30 PM	24193
Xylenes, Total	ND	0.097		mg/Kg	1	3/11/2016 5:47:30 PM	24193
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	3/11/2016 5:47:30 PM	24193

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

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

Analytical Report

Lab Order 1603548

Date Reported: 3/15/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-5'**Project:** Juniper BIP Federal Battery**Collection Date:** 3/8/2016 10:13:00 AM**Lab ID:** 1603548-005**Matrix:** SOIL**Received Date:** 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2016 7:36:10 PM	24190
Surr: DNOP	79.3	70-130		%Rec	1	3/11/2016 7:36:10 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/11/2016 6:11:55 PM	24193
Surr: BFB	91.1	66.2-112		%Rec	1	3/11/2016 6:11:55 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	3/11/2016 6:11:55 PM	24193
Toluene	ND	0.047		mg/Kg	1	3/11/2016 6:11:55 PM	24193
Ethylbenzene	ND	0.047		mg/Kg	1	3/11/2016 6:11:55 PM	24193
Xylenes, Total	ND	0.094		mg/Kg	1	3/11/2016 6:11:55 PM	24193
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	3/11/2016 6:11:55 PM	24193

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

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

Analytical Report

Lab Order 1603548

Date Reported: 3/15/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 2-6'**Project:** Juniper BIP Federal Battery**Collection Date:** 3/8/2016 10:19:00 AM**Lab ID:** 1603548-006**Matrix:** SOIL**Received Date:** 3/10/2016 10:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/11/2016 7:58:07 PM	24190
Surr: DNOP	75.7	70-130		%Rec	1	3/11/2016 7:58:07 PM	24190
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/11/2016 6:36:17 PM	24193
Surr: BFB	90.8	66.2-112		%Rec	1	3/11/2016 6:36:17 PM	24193
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	3/11/2016 6:36:17 PM	24193
Toluene	ND	0.050		mg/Kg	1	3/11/2016 6:36:17 PM	24193
Ethylbenzene	ND	0.050		mg/Kg	1	3/11/2016 6:36:17 PM	24193
Xylenes, Total	ND	0.10		mg/Kg	1	3/11/2016 6:36:17 PM	24193
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	3/11/2016 6:36:17 PM	24193

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603548

15-Mar-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-24190	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	24190	RunNo	32726					
Prep Date	3/10/2016	Analysis Date	3/11/2016	SeqNo	1001548	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	10		10.00		105	70	130			

Sample ID	LCS-24190	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	24190	RunNo	32726					
Prep Date	3/10/2016	Analysis Date	3/11/2016	SeqNo	1001558	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	65.8	136			
Surr: DNOP	5.0		5.000		100	70	130			

Sample ID	LCS-24212	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	24212	RunNo	32764					
Prep Date	3/11/2016	Analysis Date	3/14/2016	SeqNo	1004019	Units	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.4	70	130			

Sample ID	MB-24212	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	24212	RunNo	32764					
Prep Date	3/11/2016	Analysis Date	3/14/2016	SeqNo	1004020	Units	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603548

15-Mar-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-24193	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	PBS	Batch ID: 24193		RunNo: 32759						
Prep Date:	3/10/2016	Analysis Date: 3/11/2016		SeqNo: 1002860		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	910		1000		91.2	66.2	112			

Sample ID	LCS-24193		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	24193		RunNo:	32759				
Prep Date:	3/10/2016		Analysis Date:	3/11/2016		SeqNo:	1002861		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	100	80	120				
Surr: BFB	1000		1000		99.9	66.2	112				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603548

15-Mar-16

Client: Yates Petroleum Corporation

Project: Juniper BIP Federal Battery

Sample ID	MB-24193	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	24193	RunNo:	32759					
Prep Date:	3/10/2016	Analysis Date:	3/11/2016	SeqNo:	1002891	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	LCS-24193	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	24193	RunNo:	32759					
Prep Date:	3/10/2016	Analysis Date:	3/11/2016	SeqNo:	1002892	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.8	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

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

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



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: 1603548

RcptNo: 1

Received by/date:

JA

03/10/16

Logged By: Lindsay Mangin

3/10/2016 10:05:00 AM

[Signature]

Completed By: Lindsay Mangin

3/10/2016 10:29:01 AM

[Signature]

Reviewed By:

[Signature]

03/10/16

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

Adjusted?

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

Chain-of-Custody Record

Client: Yates Petroleum Corporation

Mailing Address:

105 South 4th Street Artesia, NM 88210

Phone # 575-513-8799 or 575-748-4111

Email or Fax#: agriffin@yatespetroleum.com

2AQC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Juniper BIP Federal Battery

Project #:

2RP-3501

Project Manager:

Amber Griffin

PO # 205-2020

Sampler:

Amber Griffin

On Ice: ☒ Yes ☐ No

Sample Temperature: 41-100 F = 3.1

Date Time Matrix Sample Request ID

3/8/2016 9:40 Soil 1-4' 1-4oz.

3/8/2016 9:43 Soil 1-5' 1-4oz.

3/8/2016 9:52 Soil 1-6' 1-4oz.

3/8/2016 10:08 Soil 2-4' 1-4oz.

3/8/2016 10:13 Soil 2-5' 1-4oz.

3/8/2016 10:19 Soil 2-6' 1-4oz.

Container Type and #

Preservative Type

HEAL No.

11035218

-001

-002

-003

-004

-005

-006

-007

-008

-009

-010

-011

-012

-013

-014

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-016

-017

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