

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S.P. YATES
1914-2008



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES
CHAIRMAN EMERITUS

JOHN A. YATES JR.
CHAIRMAN OF THE BOARD

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI
CHIEF FINANCIAL OFFICER

June 24, 2016

Mr. Mike Bratcher or Ms. Heather Patterson
NMOCD District II
811 South First
Artesia, NM 88210

RE: Donahue Federal SWD #1
30-015-00087
Section 10, T20S-R24E
Eddy County, New Mexico

Mr. Bratcher or Ms. Patterson,

Yates Petroleum Corporation would like to submit the following plan of work to you regarding the release that occurred at the above mentioned facility on June 1, 2016 (2RP-3737). The release was 6 barrels of produced water with 5 barrels of produced water recovered.

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

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

Thank You,

Amber Griffin
Environmental Regulatory Agent
Yates Petroleum Corporation



Yates Petroleum Corporation

Donahue Federal SWD #1

Section 10, T20S-R24E

Eddy County, New Mexico

June 24, 2016

I. Location

Travel south of Artesia to Rock Daisy Road. Turn right and go approximately 8.5 miles to the curve and continue south on pavement for approximately 2 miles. Turn right on a lease road and go approximately 1.5 miles to location.

II. Background

On June 1, 2016, Yates had a release of 6 barrels produced water with 5 barrels produced water recovered. The area affected from this release was on the south, west and north sides of the pump house on location. The pump house also has a berm around it, which prevented the released fluids from spreading horizontally. An initial Form C-141 was submitted, via e-mail, to the NMOCD District II on June 10, 2016.

On June 13, 2016 Yates visited the site and collected soil samples from the release area. The release area was split into three sections – Section 1 (south), Section 2 (west) and Section 3 (north) from around the pump house. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B, TPH 8015M, and Chlorides 300.0. Yates received the analytical results on June 23, 2016 (Report 1606762 attached to this work plan).

- Section 1 samples were taken from the surface and from the depths of 1' – 5' below the surface level. Analytical results show that both TPH and BTEX are at levels below NMOCD RRAL's. Chloride levels are shown to be fully delineated.
- Section 2 samples were taken only from the surface. An impenetrable rock layer was encountered and the backhoe, after many attempts, was unable to break through the naturally occurring barrier. Analytical results show that both TPH and BTEX are at levels below NMOCD RRAL's. Chloride levels are elevated, but further delineation is impracticable due to the solid rock that layer that was encountered.
- Section 3 samples were taken from the surface and from the depths of 1' – 3' below the surface level. A solid rock layer was encountered and the backhoe, after many attempts, was unable to break through the naturally occurring barrier. Analytical results show that both TPH and BTEX are at levels below NMOCD RRAL's. Chloride levels are shown to be decreasing with a result of 1,800 ppm at 3' below the surface level, just prior to encountering the impenetrable rock layer.

III. Surface and Ground Water

Area surface geology is Cenozoic. The ChevronTexaco depth to ground water map shows the depth to groundwater to be approximately 225' feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is zero (0) based on the following:

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

Distance to surface water body > 1000'

IV. Soils

The area consists of soils that are rock.

V. Scope of Work

Based on the enclosed analytical reports and an impermeable rock layer, Yates proposes the following excavation work:

- Section 1 – Excavate 4' of soils and backfill with caliche.
- Section 2 – Excavate all soils above the rock layer. The solid rock layer at this location has served, and will serve as a natural barrier to any future releases that may occur.
- Section 3 – Excavate 3' of soils and backfill with caliche. The solid rock layer at this location has served, and will serve as a natural barrier to any future releases that may occur.
- Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.
- Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.



Google earth

feet 200
meters 60



Donahue Federal SWD #1

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
1 - Surface	Release Area	6/13/2016	1606762	Grab/Backhoe	Surface	ND	ND	540	540	3,100
1 - 1'	Release Area	6/13/2016	1606762	Grab/Backhoe	1'	ND	ND	130	130	9,500
1 - 2'	Release Area	6/13/2016	1606762	Grab/Backhoe	2'	ND	ND	ND	ND	6,000
1 - 3'	Release Area	6/13/2016	1606762	Grab/Backhoe	3'	ND	ND	16	16	4,600
1 - 4'	Release Area	6/13/2016	1606762	Grab/Backhoe	4'	ND	ND	240	240	2,300
1 - 5'	Release Area	6/13/2016	1606762	Grab/Backhoe	5'	ND	ND	ND	ND	290
2 - Surface	Release Area	6/13/2016	1606762	Grab/Backhoe	Surface	ND	ND	28	28	4,900
3 - Surface	Release Area	6/13/2016	1606762	Grab/Backhoe	Surface	ND	38	4800	4838	6,400
3 - 1'	Release Area	6/13/2016	1606762	Grab/Backhoe	1'	ND	ND	210	210	4,000
3 - 2'	Release Area	6/13/2016	1606762	Grab/Backhoe	2'	ND	ND	ND	ND	2,600
3 - 3'	Release Area	6/13/2016	1606762	Grab/Backhoe	3'	ND	ND	16	16	1,800

Site Ranking is Zero (0). Depth to Ground Water >100' (approx. 225', per Chevron/Texaco Trend Map).

All results are ppm.

Released: 6 B/PW; Recovered: 5 B/PW. Release Date: 6/1/2016. 2RP-3737



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

June 23, 2016

Amber Griffin

Yates Petroleum Corporation

105 South Fourth Street

Artesia, NM 88210

TEL: (575) 748-4195

FAX

RE: Donahue Federal SWD 1

OrderNo.: 1606762

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 11 sample(s) on 6/14/2016 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: 1606762

Date Reported: 6/23/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Donahue Federal SWD 1

Lab Order: 1606762

Lab ID: 1606762-001 **Collection Date:** 6/13/2016 8:08:00 AM
Client Sample ID: 1-Surface **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	3100	150		mg/Kg	100	6/16/2016 5:03:24 PM	25885
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Lab ID: 1606762-002 **Collection Date:** 6/13/2016 8:11:00 AM
Client Sample ID: 1-1' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	9500	300		mg/Kg	200	6/16/2016 5:15:49 PM	25885
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Lab ID: 1606762-003 **Collection Date:** 6/13/2016 8:14:00 AM
Client Sample ID: 1-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	6000	300		mg/Kg	200	6/16/2016 5:28:13 PM	25885
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Lab ID: 1606762-004 **Collection Date:** 6/13/2016 8:18:00 AM
Client Sample ID: 1-3' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	4600	150		mg/Kg	100	6/16/2016 5:40:38 PM	25885
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Lab ID: 1606762-005 **Collection Date:** 6/13/2016 8:30:00 AM
Client Sample ID: 1-4' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	2300	75		mg/Kg	50	6/16/2016 5:53:02 PM	25885
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	Page 1 of 4
	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: 1606762

Date Reported: 6/23/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation
Project: Donahue Federal SWD 1

Lab Order: 1606762

Lab ID: 1606762-006 **Collection Date:** 6/13/2016 8:36:00 AM

Client Sample ID: 1-5' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	290	30		mg/Kg	20	6/15/2016 1:43:15 PM	25885
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Lab ID: 1606762-007 **Collection Date:** 6/13/2016 8:56:00 AM

Client Sample ID: 2-Surface **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	4900	150		mg/Kg	100	6/16/2016 6:05:27 PM	25885
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Lab ID: 1606762-008 **Collection Date:** 6/13/2016 9:05:00 AM

Client Sample ID: 3-Surface **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	6400	300		mg/Kg	200	6/16/2016 6:17:51 PM	25885
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Lab ID: 1606762-009 **Collection Date:** 6/13/2016 9:10:00 AM

Client Sample ID: 3-1' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	4000	150		mg/Kg	100	6/16/2016 6:30:15 PM	25885
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Lab ID: 1606762-010 **Collection Date:** 6/13/2016 9:18:00 AM

Client Sample ID: 3-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: LGT

Chloride	2600	75		mg/Kg	50	6/16/2016 6:42:39 PM	25885
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	Page 2 of 4
	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: 1606762

Date Reported: 6/23/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation
Project: Donahue Federal SWD 1**Lab Order:** 1606762**Lab ID:** 1606762-011**Collection Date:** 6/13/2016 9:28:00 AM**Client Sample ID:** 3-3'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1800	75		mg/Kg	50	6/16/2016 6:55:05 PM	25885

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#: 1606762

23-Jun-16

Client: Yates Petroleum Corporation

Project: Donahue Federal SWD 1

Sample ID	MB-25885	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	25885	RunNo:	34957					
Prep Date:	6/15/2016	Analysis Date:	6/15/2016	SeqNo:	1080065	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-25885	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	25885	RunNo:	34957					
Prep Date:	6/15/2016	Analysis Date:	6/15/2016	SeqNo:	1080066	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: Yates Petroleum Corporat

Work Order Number: 1606762

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

6/14/2016 10:00:00 AM

Completed By: Lindsay Mangin

6/14/2016 3:05:20 PM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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?
(Note discrepancies on chain of custody)

Yes ☒

No ☐

Adjusted?

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?

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	1.7	Good	Yes			



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

June 23, 2016

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

RE: Donahue Federal SWD 1

OrderNo.: 1606762

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 11 sample(s) on 6/14/2016 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-Surface

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:08:00 AM

Lab ID: 1606762-001

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	540	97		mg/Kg	10	6/16/2016 2:05:52 PM	25834
Surr: DNOP	0	70-130	S	%Rec	10	6/16/2016 2:05:52 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/16/2016 5:12:49 PM	25868
Surr: BFB	106	80-120		%Rec	1	6/16/2016 5:12:49 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/16/2016 5:12:49 PM	25868
Toluene	ND	0.049		mg/Kg	1	6/16/2016 5:12:49 PM	25868
Ethylbenzene	ND	0.049		mg/Kg	1	6/16/2016 5:12:49 PM	25868
Xylenes, Total	ND	0.098		mg/Kg	1	6/16/2016 5:12:49 PM	25868
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/16/2016 5:12:49 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-1'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:11:00 AM

Lab ID: 1606762-002

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	130	100		mg/Kg	10	6/16/2016 2:49:20 PM	25834
Surr: DNOP	0	70-130	S	%Rec	10	6/16/2016 2:49:20 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/16/2016 5:36:18 PM	25868
Surr: BFB	105	80-120		%Rec	1	6/16/2016 5:36:18 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/16/2016 5:36:18 PM	25868
Toluene	ND	0.050		mg/Kg	1	6/16/2016 5:36:18 PM	25868
Ethylbenzene	ND	0.050		mg/Kg	1	6/16/2016 5:36:18 PM	25868
Xylenes, Total	ND	0.099		mg/Kg	1	6/16/2016 5:36:18 PM	25868
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/16/2016 5:36:18 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-2'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:14:00 AM

Lab ID: 1606762-003

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/16/2016 3:32:47 PM	25834
Surr: DNOP	104	70-130		%Rec	1	6/16/2016 3:32:47 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/16/2016 5:59:53 PM	25868
Surr: BFB	108	80-120		%Rec	1	6/16/2016 5:59:53 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/16/2016 5:59:53 PM	25868
Toluene	ND	0.050		mg/Kg	1	6/16/2016 5:59:53 PM	25868
Ethylbenzene	ND	0.050		mg/Kg	1	6/16/2016 5:59:53 PM	25868
Xylenes, Total	ND	0.099		mg/Kg	1	6/16/2016 5:59:53 PM	25868
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/16/2016 5:59:53 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-3'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:18:00 AM

Lab ID: 1606762-004

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	16	9.6		mg/Kg	1	6/16/2016 3:54:32 PM	25834
Surr: DNOP	104	70-130		%Rec	1	6/16/2016 3:54:32 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/16/2016 6:23:24 PM	25868
Surr: BFB	107	80-120		%Rec	1	6/16/2016 6:23:24 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/16/2016 6:23:24 PM	25868
Toluene	ND	0.048		mg/Kg	1	6/16/2016 6:23:24 PM	25868
Ethylbenzene	ND	0.048		mg/Kg	1	6/16/2016 6:23:24 PM	25868
Xylenes, Total	ND	0.095		mg/Kg	1	6/16/2016 6:23:24 PM	25868
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/16/2016 6:23:24 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-4'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:30:00 AM

Lab ID: 1606762-005

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	240	94		mg/Kg	10	6/16/2016 4:37:48 PM	25834
Surr: DNOP	0	70-130	S	%Rec	10	6/16/2016 4:37:48 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/16/2016 11:27:49 PM	25868
Surr: BFB	120	80-120		%Rec	1	6/16/2016 11:27:49 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/16/2016 11:27:49 PM	25868
Toluene	ND	0.049		mg/Kg	1	6/16/2016 11:27:49 PM	25868
Ethylbenzene	ND	0.049		mg/Kg	1	6/16/2016 11:27:49 PM	25868
Xylenes, Total	ND	0.097		mg/Kg	1	6/16/2016 11:27:49 PM	25868
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	6/16/2016 11:27:49 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 1-5'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:36:00 AM

Lab ID: 1606762-006

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/16/2016 5:21:14 PM	25834
Surr: DNOP	105	70-130		%Rec	1	6/16/2016 5:21:14 PM	25834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/16/2016 11:51:10 PM	25868
Surr: BFB	108	80-120		%Rec	1	6/16/2016 11:51:10 PM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	6/16/2016 11:51:10 PM	25868
Toluene	ND	0.049		mg/Kg	1	6/16/2016 11:51:10 PM	25868
Ethylbenzene	ND	0.049		mg/Kg	1	6/16/2016 11:51:10 PM	25868
Xylenes, Total	ND	0.099		mg/Kg	1	6/16/2016 11:51:10 PM	25868
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/16/2016 11:51:10 PM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 2-Surface

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 8:56:00 AM

Lab ID: 1606762-007

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	28	9.4		mg/Kg	1	6/17/2016 10:32:28 AM	25855
Surr: DNOP	116	70-130		%Rec	1	6/17/2016 10:32:28 AM	25855
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/17/2016 12:14:31 AM	25868
Surr: BFB	105	80-120		%Rec	1	6/17/2016 12:14:31 AM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/17/2016 12:14:31 AM	25868
Toluene	ND	0.048		mg/Kg	1	6/17/2016 12:14:31 AM	25868
Ethylbenzene	ND	0.048		mg/Kg	1	6/17/2016 12:14:31 AM	25868
Xylenes, Total	ND	0.096		mg/Kg	1	6/17/2016 12:14:31 AM	25868
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	6/17/2016 12:14:31 AM	25868

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 1606762

Date Reported: 6/23/2016

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Yates Petroleum Corporation**Client Sample ID:** 3-Surface**Project:** Donahue Federal SWD 1**Collection Date:** 6/13/2016 9:05:00 AM**Lab ID:** 1606762-008**Matrix:** SOIL**Received Date:** 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	4800	990		mg/Kg	100	6/16/2016 6:26:44 PM	25855
Surr: DNOP	0	70-130	S	%Rec	100	6/16/2016 6:26:44 PM	25855
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	38	23		mg/Kg	5	6/17/2016 12:37:52 AM	25868
Surr: BFB	178	80-120	S	%Rec	5	6/17/2016 12:37:52 AM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	6/17/2016 12:37:52 AM	25868
Toluene	ND	0.23		mg/Kg	5	6/17/2016 12:37:52 AM	25868
Ethylbenzene	ND	0.23		mg/Kg	5	6/17/2016 12:37:52 AM	25868
Xylenes, Total	ND	0.47		mg/Kg	5	6/17/2016 12:37:52 AM	25868
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	5	6/17/2016 12:37:52 AM	25868

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 1606762

Date Reported: 6/23/2016

CLIENT: Yates Petroleum Corporation

Client Sample ID: 3-1'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 9:10:00 AM

Lab ID: 1606762-009

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	210	97		mg/Kg	10	6/16/2016 7:10:36 PM	25855
Surr: DNOP	0	70-130	S	%Rec	10	6/16/2016 7:10:36 PM	25855
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	9.8		mg/Kg	2	6/17/2016 1:01:10 AM	25868
Surr: BFB	147	80-120	S	%Rec	2	6/17/2016 1:01:10 AM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	2	6/17/2016 1:01:10 AM	25868
Toluene	ND	0.098		mg/Kg	2	6/17/2016 1:01:10 AM	25868
Ethylbenzene	ND	0.098		mg/Kg	2	6/17/2016 1:01:10 AM	25868
Xylenes, Total	ND	0.20		mg/Kg	2	6/17/2016 1:01:10 AM	25868
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	2	6/17/2016 1:01:10 AM	25868

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 3-2'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 9:18:00 AM

Lab ID: 1606762-010

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/16/2016 7:54:48 PM	25855
Surr: DNOP	102	70-130		%Rec	1	6/16/2016 7:54:48 PM	25855
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/17/2016 1:24:34 AM	25868
Surr: BFB	109	80-120		%Rec	1	6/17/2016 1:24:34 AM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/17/2016 1:24:34 AM	25868
Toluene	ND	0.048		mg/Kg	1	6/17/2016 1:24:34 AM	25868
Ethylbenzene	ND	0.048		mg/Kg	1	6/17/2016 1:24:34 AM	25868
Xylenes, Total	ND	0.096		mg/Kg	1	6/17/2016 1:24:34 AM	25868
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/17/2016 1:24:34 AM	25868

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 1606762

Date Reported: 6/23/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Client Sample ID: 3-3'

Project: Donahue Federal SWD 1

Collection Date: 6/13/2016 9:28:00 AM

Lab ID: 1606762-011

Matrix: SOIL

Received Date: 6/14/2016 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	16	10		mg/Kg	1	6/17/2016 10:54:15 AM	25855
Surr: DNOP	96.1	70-130		%Rec	1	6/17/2016 10:54:15 AM	25855
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/17/2016 1:48:03 AM	25868
Surr: BFB	109	80-120		%Rec	1	6/17/2016 1:48:03 AM	25868
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	6/17/2016 1:48:03 AM	25868
Toluene	ND	0.048		mg/Kg	1	6/17/2016 1:48:03 AM	25868
Ethylbenzene	ND	0.048		mg/Kg	1	6/17/2016 1:48:03 AM	25868
Xylenes, Total	ND	0.095		mg/Kg	1	6/17/2016 1:48:03 AM	25868
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/17/2016 1:48:03 AM	25868

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#: 1606762

23-Jun-16

Client: Yates Petroleum Corporation

Project: Donahue Federal SWD 1

Sample ID	MB-25834		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25834		RunNo:	34958				
Prep Date:	6/14/2016		Analysis Date:	6/16/2016		SeqNo:	1080383		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		101	70	130				

Sample ID	MB-25855		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	25855		RunNo:	34958				
Prep Date:	6/15/2016		Analysis Date:	6/16/2016		SeqNo:	1080384		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	9.2		10.00		92.4	70	130				

Sample ID	LCS-25834		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25834		RunNo: 34958					
Prep Date:	6/14/2016		Analysis Date: 6/16/2016		SeqNo: 1080385		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	91.0	62.6	124			
Surr: DNOP	4.2		5.000		84.7	70	130			

Sample ID	LCS-25855		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 25855		RunNo: 34958					
Prep Date:	6/15/2016		Analysis Date: 6/16/2016		SeqNo: 1080386		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.0	62.6	124			
Surr: DNOP	4.2		5.000		84.9	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#: 1606762

23-Jun-16

Client: Yates Petroleum Corporation

Project: Donahue Federal SWD 1

Sample ID	MB-25868	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25868	RunNo:	34963					
Prep Date:	6/15/2016	Analysis Date:	6/16/2016	SeqNo:	1080626	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	1100		1000		106	80	120			

Sample ID	LCS-25868	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25868	RunNo:	34963					
Prep Date:	6/15/2016	Analysis Date:	6/16/2016	SeqNo:	1080627	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	98.8	80	120			
Surr: BFB	1200		1000		117	80	120			

Sample ID	LCS-25906	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	25906	RunNo:	35018					
Prep Date:	6/16/2016	Analysis Date:	6/17/2016	SeqNo:	1082494	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		111	80	120			

Sample ID	MB-25906	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	25906	RunNo:	35018					
Prep Date:	6/16/2016	Analysis Date:	6/17/2016	SeqNo:	1082495	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	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#: 1606762

23-Jun-16

Client: Yates Petroleum Corporation

Project: Donahue Federal SWD 1

Sample ID	MB-25868	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	25868	RunNo:	34963					
Prep Date:	6/15/2016	Analysis Date:	6/16/2016	SeqNo:	1080654	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-25868	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	25868	RunNo:	34963					
Prep Date:	6/15/2016	Analysis Date:	6/16/2016	SeqNo:	1080655	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.3	123			
Toluene	0.93	0.050	1.000	0	93.1	80	124			
Ethylbenzene	0.90	0.050	1.000	0	89.8	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	89.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	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 |



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

Sample Log-In Check List

Client Name: Yates Petroleum Corporat

Work Order Number: 1606762

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

6/14/2016 10:00:00 AM

Completed By: Lindsay Mangin

6/14/2016 3:05:20 PM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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?
(Note discrepancies on chain of custody)

Yes ☒

No ☐

Adjusted?

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?

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	1.7	Good	Yes			

Chain-of-Custody Record

Client: Yates Petroleum Corporation

Mailing Address:
05 South 4th Street Artesia, NM 88210
Phone #: 575-513-8799 or 575-748-4111
Mail or Fax#: agriffin@yatespetroleum.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
 Accreditation:
☒ NELAP ☐ Other
☒ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush
 Project Name:
 Donahue Federal SWD #1
 Project #:
 6/1/2016 Release
 Project Manager:
 Amber Griffin
 PO # 205-2020
 Sampler:
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 1.7

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
1/13/2016	8:08	Soil	1 - Surface	1 - 4 oz.	Ice	10007602
1/13/2016	8:11	Soil	1 - 1'	1 - 4 oz.	Ice	-001
1/13/2016	8:14	Soil	1 - 2'	1 - 4 oz.	Ice	-002
1/13/2016	8:18	Soil	1 - 3'	1 - 4 oz.	Ice	-003
1/13/2016	8:30	Soil	1 - 4'	1 - 4 oz.	Ice	-004
1/13/2016	8:36	Soil	1 - 5'	1 - 4 oz.	Ice	-005
1/13/2016	8:56	Soil	2 - Surface	1 - 4 oz.	Ice	-006
1/13/2016	9:05	Soil	3 - Surface	1 - 4 oz.	Ice	-007
1/13/2016	9:10	Soil	3 - 1'	1 - 4 oz.	Ice	-008
1/13/2016	9:18	Soil	3 - 2'	1 - 4 oz.	Ice	-009
1/13/2016	9:28	Soil	3 - 3'	1 - 4 oz.	Ice	-010
						-011

Relinquished by: Amber Griffin
 Time: 2:00
 Date: 1/13/16
 Received by: [Signature]
 Date: 06/14/16
 Time: 1000



4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

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

Remarks: TPH: 8015B, BTEX: 8021B. Please show BTEX results as mg/kg. Anions: Chloride only, please show on a separate report.

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