MARTIN YATES, III 1912-1985 FRANK W. YATES 1936-1986

> S.P YATES 1914-2008



105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

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JOHN A. YATES
CHAIRMAN EMERITUS

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

October 28, 2016

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

RE:

Windmill ATI State #3

30-005-61963

Section 16, T15S-R28E

Chaves 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 was discovered at the above mentioned facility on 9/21/2016 (2RP-3922). The release was 153 barrels of crude oil, 585 barrels of produced water with 60 barrels of crude oil and 0 barrels of produced water recovered.

With NMOCD and NMSLO 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 amber griffin@eogresources.com.

Thank You,

Amber Griffin

Environmental Representative Yates Petroleum Corporation **Yates Petroleum Corporation** 

Windmill ATI State #3

Section 16, T15S-R28E

Chaves County, New Mexico

October 28, 2016

### I. Location

From intersection of State Highway 2 and NM-249 travel North for approximately 0.3 miles to Aberdeen Street. Turn East for approximately 8.5 miles to Harriet Road. Turn South and follow road for approximately 3.3 miles. Road turns to the Southeast – follow for approximately 3.4 miles. Road turns to the Northeast – follow for 0.7 miles. Road turns back to the Southeast for 0.6 miles. Turn South for approximately 0.8 miles. Turn East to location.

# II. Background

On September 21, 2016, Yates discovered that the location had been struck by lightning from a storm sometime during the weekend of September 17<sup>th</sup>. The release was 153 barrels of crude oil, 585 barrels of produced water, with 60 barrels of crude oil and 0 barrels of produced recovered. The area affected from this release was within a bermed battery and outside of the berm on the production pad. An initial Form C-141 was submitted, via e-mail, to the NMOCD District II on September 30, 2016.

On October 6, 2016 and October 14, 2016 Yates returned to the site and collected soil samples from the release area. 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 October 18, 2016 and October 27, 2016 (Reports 1610352 and 1610853 attached to this work plan). Analytical results showed the following:

- Section 1 and Section 2 showed acceptable levels for TPH, BTEX and Chlorides.
- Section 3 showed TPH/BTEX levels above NMOCD RRALs at 1' below the surface level, but those levels decreased to levels below NMOCD RRALs at 2' below the surface level. Chlorides were elevated at 1' and 2' below the surface level, but delineated to acceptable levels.
- Section 4 showed TPH/BTEX levels below NMOCD RRALs on the surface.
   Chlorides were elevated on the surface, at 1' and 2' below the surface level, but delineated to acceptable levels.

### III. Surface and Ground Water

Area surface geology is Cenozoic. The NMOSE website shows the depth to groundwater to be approximately 125' 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.

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

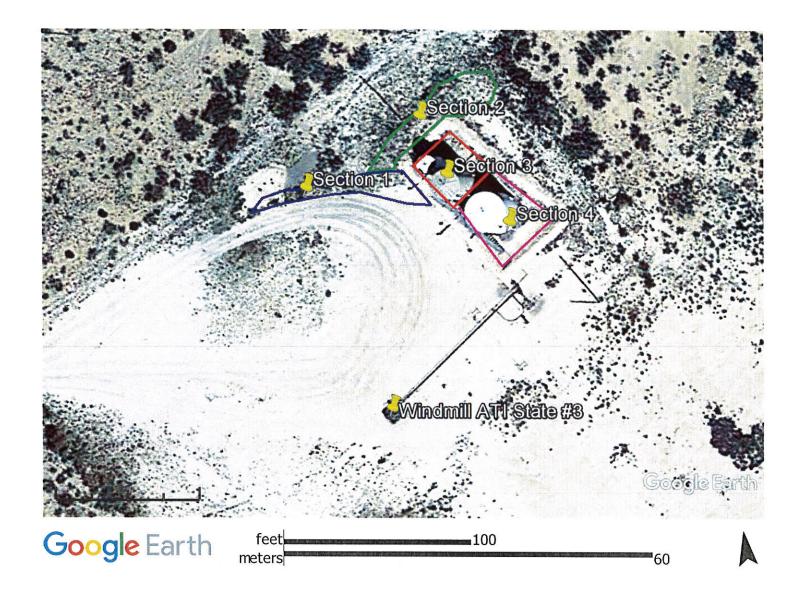
### IV. Soils

The area consists of soils that are topsoil and caliche.

# V. Scope of Work

Based off the analytical reports which show complete vertical delineation, Yates proposes the following work:

- No excavation work to take place in Sections 1 or 2 of the release area.
- Excavate 3' from both Sections 3 and 4 of the release area to remove soils that contain elevated TPH, BTEX and Chloride levels.
- Contaminated soils that are excavated will be hauled to a NMOCD approved disposal facility.
- Backfill the excavation with caliche.
- Once all excavation and backfill work is complete, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.



# KNOT TO SCALE &

# Windmill ATI State #3

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	В	F	Ш	×	BTEX	GRO	DRO	TOTAL	DRO TOTAL CHLORIDES
1 - Surface	Release Area	10/6/2016	1610352	Grab	Surface	Q	ΩN	QN	Q	QN	QN	QN	ON	ON
2 - Surface	Release Area	10/6/2016	1610352	Grab	Surface	QN	ND	ND	ND	ND	ND	17	17	56
3-1	Release Area	10/6/2016	1610352	Grab	1.	ND	ND	ND	74	74	2,400	2,400 4,800	7,200	4,100
3-2'	Release Area	10/6/2016	1610352	Grab	2.	S	N	N <sub>O</sub>	9.9	9.9	680	2,300	2,980	14,000
3-4'	Release Area	10/14/2016	1610853	Grab	4.									1,800
3-6'	Release Area	10/14/2016	1610853	Grab	6,	•								33
3-8'	Release Area	10/14/2016	1610853	Grab	80				·					76
3-10	Release Area	10/14/2016	1610853	Grab	10'					1				460
4 - Surface	Release Area	10/6/2016	1610352	Grab	Surface	ND	ND	ND	0.1	0.1	ND	920	920	16,000
4-1'	Release Area	10/14/2016	1610853	Grab	1.							•		7,600
4-2'	Release Area	10/14/2016	1610853	Grab	2.							•	•	7,300
4-4'	Release Area	10/14/2016	1610853	Grab	4.								,	630
4-6'	Release Area	10/14/2016	1610853	Grab	.9							•		810
4-8'	Release Area	10/14/2016	1610853	Grab	8.	•								160
4 - 10.	Release Area	10/14/2016	1610853	Grab	10.	٠							1	420

Site Ranking is zero (0). Depth to Ground Water >100' (approx. 125', per NMOSE). Released: 153 B/O, 585 B/PW; Recovered: 60 B/O, 0 B/PW. Release Date: Unknown. 2RP-3922



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

October 18, 2016

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

**FAX** 

RE: Windmill ATI State 3

OrderNo.: 1610352

## Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/7/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1610352

Date Reported: 10/18/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Yates Petroleum Corporation

Project: Windmill ATI State 3

Lab ID: 1610352-001

Client Sample ID: 1 - Surface

Matrix: SOIL

Collection Date: 10/6/2016 7:15:00 AM

Received Date: 10/7/2016 9:45:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analys	t: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	10/12/2016 6:35:36 PM	1 28015
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/12/2016 12:46:24 P	M 27964
Surr: DNOP	42.6	70-130	S	%Rec	1	10/12/2016 12:46:24 P	M 27964
EPA METHOD 8015D: GASOLINE RANG	Ē i					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/11/2016 5:26:03 PM	1 27962
Surr: BFB	92.2	68.3-144		%Rec	1	10/11/2016 5:26:03 PM	1 27962
<b>EPA METHOD 8021B: VOLATILES</b>						Analys	t: NSB
Benzene	ND	0.024		mg/Kg	1	10/11/2016 5:26:03 PM	1 27962
Toluene	ND	0.047		mg/Kg	1	10/11/2016 5:26:03 PM	1 27962
Ethylbenzene	ND	0.047		mg/Kg	1	10/11/2016 5:26:03 PM	1 27962
Xylenes, Total	ND	0.094		mg/Kg	1	10/11/2016 5:26:03 PM	1 27962
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	10/11/2016 5:26:03 PM	A 27962

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1610352

Date Reported: 10/18/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Windmill ATI State 3

Lab ID: 1610352-002

Client Sample ID: 2 - Surface

Collection Date: 10/6/2016 7:20:00 AM

Received Date: 10/7/2016 9:45:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: LGT
Chloride	56	30	mg/Kg	20	10/12/2016 6:48:01 P	M 28015
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANIC	S			Analy	st: TOM
Diesel Range Organics (DRO)	17	9.5	mg/Kg	1	10/12/2016 7:21:31 P	M 27964
Surr: DNOP	87.9	70-130	%Rec	1	10/12/2016 7:21:31 P	M 27964
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/11/2016 5:49:30 P	M 27962
Surr: BFB	91.9	68.3-144	%Rec	1	10/11/2016 5:49:30 P	M 27962
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.024	mg/Kg	1	10/11/2016 5:49:30 P	M 27962
Toluene	ND	0.048	mg/Kg	1	10/11/2016 5:49:30 P	M 27962
Ethylbenzene	ND	0.048	mg/Kg	1	10/11/2016 5:49:30 P	M 27962
Xylenes, Total	ND	0.097	mg/Kg	1	10/11/2016 5:49:30 P	M 27962
Surr: 4-Bromofluorobenzene	106	80-120	%Rec	1	10/11/2016 5:49:30 P	M 27962

Matrix: SOIL

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1610352

Date Reported: 10/18/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Windmill ATI State 3

Lab ID: 1610352-003

Client Sample ID: 3 - 1'

Collection Date: 10/6/2016 7:25:00 AM

Received Date: 10/7/2016 9:45:00 AM

Analyses	Result	PQL (	Qual	Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>LGT</b>
Chloride	4100	150		mg/Kg	100 10/13/2016 4:02:42 PM 28015
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst: TOM
Diesel Range Organics (DRO)	4800	98		mg/Kg	10 10/11/2016 4:40:10 PM 27964
Surr: DNOP	0	70-130	S	%Rec	10 10/11/2016 4:40:10 PM 27964
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	2400	240		mg/Kg	50 10/11/2016 10:23:16 AM 27962
Surr: BFB	273	68.3-144	S	%Rec	50 10/11/2016 10:23:16 AM 27962
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	1.2		mg/Kg	50 10/11/2016 10:23:16 AM 27962
Toluene	ND	2.4		mg/Kg	50 10/11/2016 10:23:16 AM 27962
Ethylbenzene	ND	2.4		mg/Kg	50 10/11/2016 10:23:16 AM 27962
Xylenes, Total	74	4.9		mg/Kg	50 10/11/2016 10:23:16 AM 27962
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	50 10/11/2016 10:23:16 AM 27962

Matrix: SOIL

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1610352

Date Reported: 10/18/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Windmill ATI State 3

Lab ID: 1610352-004

Client Sample ID: 3 - 2'

Collection Date: 10/6/2016 7:30:00 AM

Received Date: 10/7/2016 9:45:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analy	st: <b>LGT</b>
Chloride	14000	750		mg/Kg	500	10/13/2016 4:15:07 F	M 28015
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	s				Analy	st: TOM
Diesel Range Organics (DRO)	2300	98		mg/Kg	10	10/11/2016 5:01:56 F	M 27964
Surr: DNOP	0	70-130	S	%Rec	10	10/11/2016 5:01:56 F	M 27964
EPA METHOD 8015D: GASOLINE RAN	GE					Analy	st: NSB
Gasoline Range Organics (GRO)	680	24		mg/Kg	5	10/11/2016 10:46:43	AM 27962
Surr: BFB	533	68.3-144	S	%Rec	5	10/11/2016 10:46:43	AM 27962
<b>EPA METHOD 8021B: VOLATILES</b>						Analy	st: NSB
Benzene	ND	0.12		mg/Kg	5	10/11/2016 10:46:43	AM 27962
Toluene	ND	0.24		mg/Kg	5	10/11/2016 10:46:43	AM 27962
Ethylbenzene	ND	0.24		mg/Kg	5	10/11/2016 10:46:43	AM 27962
Xylenes, Total	6.6	0.48		mg/Kg	5	10/11/2016 10:46:43	AM 27962
Surr: 4-Bromofluorobenzene	148	80-120	S	%Rec	5	10/11/2016 10:46:43	AM 27962

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1610352

Date Reported: 10/18/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Windmill ATI State 3

Lab ID: 1610352-005

Client Sample ID: 4 - Surface

Collection Date: 10/6/2016 7:35:00 AM

Received Date: 10/7/2016 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LGT
Chloride	16000	750		mg/Kg	500	10/13/2016 4:27:32 PM	28015
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	s				Analyst	: том
Diesel Range Organics (DRO)	920	96		mg/Kg	10	10/11/2016 5:23:38 PM	27964
Surr: DNOP	0	70-130	S	%Rec	10	10/11/2016 5:23:38 PM	27964
EPA METHOD 8015D: GASOLINE RANG	SE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2016 6:12:52 PM	27962
Surr: BFB	97.7	68.3-144		%Rec	1	10/11/2016 6:12:52 PM	27962
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	: NSB
Benzene	ND	0.025		mg/Kg	1	10/11/2016 6:12:52 PM	27962
Toluene	ND	0.050		mg/Kg	1	10/11/2016 6:12:52 PM	27962
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2016 6:12:52 PM	27962
Xylenes, Total	0.10	0.099		mg/Kg	1	10/11/2016 6:12:52 PM	27962
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	10/11/2016 6:12:52 PM	27962

Matrix: SOIL

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

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1610352

18-Oct-16

Client:

Yates Petroleum Corporation

Project:

Windmill ATI State 3

Sample ID MB-28015

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 28015

PQL

1.5

RunNo: 37905

Prep Date:

10/11/2016

Analysis Date: 10/12/2016

SeqNo: 1180857

Units: mg/Kg HighLimit

Analyte

**RPDLimit** 

Qual

Chloride

Client ID:

ND

SampType: LCS Batch ID: 28015

RunNo: 37905

Units: mg/Kg

Prep Date: 10/11/2016

Sample ID LCS-28015

LCSS

Analysis Date: 10/12/2016

SeqNo: 1180858

Analyte

Result

Result

SPK value SPK Ref Val %REC

TestCode: EPA Method 300.0: Anions

**RPDLimit** 

Page 6 of 9

15.00

%RPD

%RPD

Chloride

Qual

1.5

**PQL** 

14

110

0

SPK value SPK Ref Val %REC LowLimit

94.7

LowLimit 90 HighLimit

H

R

Qualifiers: Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

Holding times for preparation or analysis exceeded

В

E Value above quantitation range Analyte detected below quantitation limits J

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1610352

18-Oct-16

Client:

Yates Petroleum Corporation

Project: Windm	nill ATI State 3		Moderation
Sample ID LCS-27964	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range O	rganics
Client ID: LCSS	Batch ID: 27964	RunNo: 37844	
Prep Date: 10/10/2016	Analysis Date: 10/11/2016	SeqNo: 1179127 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD R	PDLimit Qual
Diesel Range Organics (DRO)	48 10 50.00	0 96.4 62.6 124	
Surr: DNOP	4.6 5.000	92.8 70 130	
Sample ID MB-27964	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range O	rganics
Client ID: PBS	Batch ID: 27964	RunNo: 37844	
Prep Date: 10/10/2016	Analysis Date: 10/11/2016	SeqNo: 1179128 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD R	PDLimit Qual
Diesel Range Organics (DRO)	ND 10		
Surr: DNOP	10 10.00	101 70 130	3
Sample ID MB-28043	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range O	rganics
Client ID: PBS	Batch ID: 28043	RunNo: 37941	
Prep Date: 10/13/2016	Analysis Date: 10/14/2016	SeqNo: 1182819 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD R	PDLimit Qual
Surr: DNOP	8.6 10.00	86.3 70 130	
Sample ID LCS-28043	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range O	rganics
Client ID: LCSS	Batch ID: 28043	RunNo: 37941	
Prep Date: 10/13/2016	Analysis Date: 10/14/2016	SeqNo: 1182840 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD R	PDLimit Qual
Surr: DNOP	4.3 5.000	85.8 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

Page 7 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1610352

18-Oct-16

Client:

Yates Petroleum Corporation

Project:

Windmill ATI State 3

- Trojecti William	III I I I I I I I I I I I I I I I I I									
Sample ID MB-27962	SampTy	pe: ME	LK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	е ——	
Client ID: PBS	Batch	ID: 279	962	F	RunNo: 3	7863				
Prep Date: 10/10/2016	Analysis Da	ate: 10	/11/2016	S	SeqNo: 1	179358	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.9	68.3	144			
Sample ID LCS-27962	SampTy	/pe: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch	ID: 27	962	F	RunNo: 3	7863				8) E
Prep Date: 10/10/2016	Analysis Da	ate: 10	/11/2016	8	SeqNo: 1	179359	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	120	74.6	123			
Surr: BFB	1000		1000		101	68.3	144			

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 8 of 9

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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1610352

18-Oct-16

Client:

Yates Petroleum Corporation

Project:

Windmill ATI State 3

Sample ID MB-27962	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles —		
Client ID: PBS	Batch	1D: <b>27</b>	962	F	RunNo: 3	7863				
Prep Date: 10/10/2016	Analysis D	ate: 10	0/11/2016	S	SeqNo: 1	179392	Units: mg/K	g		
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		108	80	120			

Sample ID LCS-27962	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Bato	ch ID: 27	962	F	RunNo: 3	7863				
Prep Date: 10/10/2016	Analysis	Date: 1	0/11/2016	8	SeqNo: 1	179393	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	75.2	115	<del>5111) - 22111   52111   5211</del>		
Toluene	1.0	0.050	1.000	0	103	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	104	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	103	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	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

Page 9 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



4901 Hawkins NE Albuquerque, NM 87109

# Sample Log-In Check List

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

Client Name: Yates Petroleum Corpora Work Order Number:	1610352		RcptNo:	1
Received by/date: 1010716				
Logged By: Lindsay Mangin 10/7/2016 9:45:00 AM		Street House		
Completed By: Lindsay Mangin 10/7/2016 2:58:35 PM				
Reviewed By: QT \ \0 \ \ 7 \ \ \ 6		Completings D		·
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			
<u>Log In</u>		Mariana Capaza		
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	NA □	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗆		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗆		
9. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗆	
10.VOA vials have zero headspace?	Yes 🗆	No 🗆	No VOA Vials	
11. Were any sample containers received broken?	Yes 🗆	No 🗹	# of preserved	
42.5			bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗀	for pH: (<2 o	r >12 unless noted)
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:	CONTRACT NAME OF STREET			
Client Instructions:	- F W-107 - F- 1070-			
17. Additional remarks:				
18. Cooler Information				
	Seal Date	Signed By		
1 4.0 Good Yes				

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	шс	4901 Hawkins NE - Albuquerque, NM 87109	505-345-4107					11		0/	√-ļu	ne2) 0728														. Please show BTEX ly.	
8	KE	www.hallenvironmental.com	ne, N	5-345	Analysis Request	_		<u> </u>	700	0.74			8260B (V				L	+	1	+	+	+	-	4	$\dashv$		Remarks: TPH: 8015B, BTEX: 8021B. results as mg/kg. Anions: Chloride only.	
3	2	onme	dnerc	Fax 50	is Re						-		ㅋ) anoinA se역 1808	×	×	×	;	×	×	+	+	+	+	$\dashv$	$\dashv$	-	EX: 8 hloric	
	Z	lenvir	Albi	ш	nalys						sle	Jeh	8 AЯЭЯ					Ī			1						3, BT	
H	¥	w.hal	믣	3975	<b>σ</b>	_							NA) 0168			_	$\downarrow$	+	+	$\perp$	4	+	+	4	+	_	8015i Anio	
I	AN	¥	wkins	505-345-3975		-	_						TPH (Met			-	+	+	+	+	+	+	+	+	+	-	PH: g/kg.	
	П		11 Ha			əs	əlC	]/se			-		rtpeM H9T	×	×	×	1	×	×	士		1					S: T	
H			49	Tel.		_		-					M + X3T8				1	1		_	4	4	4	4			Remarks:	
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d lime:	d □ Rush	je:	Windmill ATI State #3		2RP-3922		anager	Amber Griffin	PO # 205-2020	Am	A res	emperature:4,0	Preservativ HEAL No		100-		3	100 - 1777 - 85	100 - CH							1	Daty Time	がかれる人
Turn-Around 11me:	X Standard	Project Name:		Project #:			Project Man			Sampler:	Ch Ice:	Sample Ter	Container Type and #	1-407	1 - 407		1 - 40Z.	1 - 4oz.	1 - 4oz.								Received by:	
cord	Yates Petroleum Corporation		1,000	OFCOS NIN CIACLO		5/5-513-8/88 of 5/5-146-4111	agriffin@yatespetroleum.com		☐ Level 4 (Full Validation)		□ Other		Matrix Sample Request ID	7.7   1 - Surface		Ī	7:25 Soil 3 - 1	7:30 Soil 3 - 2'	7:35 Soil 4 - Surface								Refinquished by:	Umber Oritis
ain-	(ates	37.0	ress:	10 411	4th ou		雙	age:	ł	:u:		De)	Time	1 2				7:3	7:3								Time:	5.00
S	ient:	7	ailing Address:	1	South 4th Sueer	none #:	nail or Fax#:	A/QC Package:	Standard	ccreditation:	NELAP	EDD (Type)	Date	97001	0/02/0/0	0/6/2016	0/6/2016	0/6/2016	0/6/2016								1 -	0/10/10



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

October 27, 2016

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

**FAX** 

RE: Windmill ATI State #3

OrderNo.: 1610853

### Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 10 sample(s) on 10/18/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1610853

Date Reported: 10/27/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT:

Yates Petroleum Corporation

Project:

Lab ID:

Windmill ATI State #3

1610853-001

Lab Order: 1610853

Matrix: SOIL

Analyses

Client Sample ID: 3-4'

Result PQL Qual Units

75

**DF** Date Analyzed

Collection Date: 10/14/2016 8:16:00 AM

**Batch ID** 

Analyst: LGT

**EPA METHOD 300.0: ANIONS** 

Chloride

1800

Result

33

Result

76

mg/Kg

50 10/27/2016 12:01:28 AM 28251

Lab ID:

Analyses

Lab ID:

1610853-002

Collection Date: 10/14/2016 8:18:00 AM

Client Sample ID: 3-6'

Matrix: SOIL PQL Qual Units

**DF** Date Analyzed

**Batch ID** 

Analyst: MRA

**EPA METHOD 300.0: ANIONS** 

Chloride

1610853-003

30 mg/Kg 10/25/2016 3:38:18 PM 28251

Client Sample ID: 3-8'

Collection Date: 10/14/2016 8:22:00 AM

Matrix: SOIL

Analyses

PQL Qual Units

**DF** Date Analyzed

**Batch ID** 

Analyst: MRA

**EPA METHOD 300.0: ANIONS** 

Chloride

1610853-004

30

mg/Kg

10/25/2016 3:50:43 PM 28251

Matrix: SOIL

Analyses

Lab ID:

Client Sample ID: 3-10'

Result

**PQL Qual Units** 

**DF** Date Analyzed

Collection Date: 10/14/2016 8:27:00 AM

**Batch ID** 

**EPA METHOD 300.0: ANIONS** 

Chloride

1610853-005

460 30 mg/Kg

20 10/25/2016 4:03:08 PM 28251

Result

Collection Date: 10/14/2016 7:49:00 AM

Matrix: SOIL

Analyst: LGT

Analyst: MRA

Analyses

Lab ID:

Client Sample ID: 4-1'

POL Qual Units

**DF** Date Analyzed

Batch ID

**EPA METHOD 300.0: ANIONS** 

Chloride

S

7600

300

mg/Kg

200 10/27/2016 12:13:53 AM 28251

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

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

Analyte detected in the associated Method Blank В

E Value above quantitation range

J Analyte detected below quantitation limits

Page 1 of 3

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Lab Order: 1610853

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/27/2016

CLIENT:

Yates Petroleum Corporation

Project:

Windmill ATI State #3

Lab Order:

1610853

Lab ID:

Analyses

1610853-006

Collection Date: 10/14/2016 7:52:00 AM

Matrix: SOIL

Client Sample ID: 4-2'

**PQL** Qual Units

**DF** Date Analyzed

**Batch ID** 

Analyst: LGT

**EPA METHOD 300.0: ANIONS** 

300

mg/Kg

200 10/27/2016 12:26:17 AM 28251

Lab ID:

Analyses

Chloride

1610853-007

Collection Date: 10/14/2016 7:55:00 AM

Client Sample ID:

**Batch ID** 

**EPA METHOD 300.0: ANIONS** 

**PQL Qual Units** 

**DF** Date Analyzed

Chloride Lab ID:

1610853-008

30

Collection Date: 10/14/2016 7:58:00 AM

Matrix: SOIL

10/25/2016 4:40:22 PM 28251

Client Sample ID: 4-6'

**PQL Qual Units** 

Matrix: SOIL

Batch ID

Analyst: MRA

**EPA METHOD 300.0: ANIONS** 

**EPA METHOD 300.0: ANIONS** 

Chloride

810

Result

160

Result

Result

7300

Result

630

30

mg/Kg

mg/Kg

10/25/2016 4:52:46 PM 28251

Analyst: MRA

Lab ID:

Analyses

1610853-009

Collection Date: 10/14/2016 8:01:00 AM

**DF** Date Analyzed

Matrix: SOIL

Analyses

Client Sample ID: 4-8'

**PQL** Qual Units

**DF** Date Analyzed

**Batch ID** 

Analyst: MRA

Chloride

30

mg/Kg

10/25/2016 5:05:11 PM 28251

Lab ID:

Analyses

1610853-010

Collection Date: 10/14/2016 8:05:00 AM

**DF** Date Analyzed

Matrix: SOIL

Result

Batch ID

**EPA METHOD 300.0: ANIONS** 

Client Sample ID: 4-10'

**PQL Qual Units** 

Analyst: MRA

Chloride

420

30

mg/Kg

10/25/2016 5:42:26 PM 28251

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R

- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Page 2 of 3
- Sample pH Not In Range P
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1610853

27-Oct-16

Client:

Yates Petroleum Corporation

Project:

Windmill ATI State #3

Sample ID MB-28251

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

**PBS** 

Batch ID: 28251

RunNo: 38161

Prep Date: 10/24/2016 Analysis Date: 10/24/2016

Units: mg/Kg

SeqNo: 1191020

Analyte

Result PQL SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit**  Qual

Chloride

Client ID:

SampType: Ics

Batch ID: 28251

**PQL** 

RunNo: 38161

TestCode: EPA Method 300.0: Anions

LowLimit

Units: mg/Kg

Prep Date: 10/24/2016

Sample ID LCS-28251

Analysis Date: 10/24/2016

SeqNo: 1191021 %REC

HighLimit

%RPD

Page 3 of 3

15.00

90

**RPDLimit** 

Chloride

110

Analyte

LCSS

14

SPK value SPK Ref Val

96.6

1.5

Qual

Qualifiers:

R

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits P Sample pH Not In Range

I

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



# Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

# Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number	um Corpora Work Order Number: 1610853		RcptNo: 1		
Received by/date:	In	i brant de la companya de la company			
Logged By: Ashley Gallegos 10/18/2016 9:03:05 /	AM	A			
		240			
Reviewed By: 10/18/16  Chain of Custody					
Custody seals intact on sample bottles?	Yes	No 🗆	Not Present ✓		
2. Is Chain of Custody complete?	Yes 🗹	No 🗆	Not Present		
3. How was the sample delivered?	Courier				
Log In					
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	NA 🗆		
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆		
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆			
7. Sufficient sample volume for Indicated test(s)?	Yes 🗹	No 🗆			
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗆			
9. Was preservative added to bottles?	Yes	No 🗹	NA 🗆		
10.VOA vials have zero headspace?	Yes 🗆	No 🗆	No VOA Vials		
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved		
			bottles checked		
12. Does paperwork match bottle labels?	Yes 🗹	No 🗀	for pH: (<2 o	r >12 unless noted)	
(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 🗆		39.5	
15. Were all holding times able to be met?	Yes 🗹	No 🗆	Checked by:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
(If no, notify customer for authorization.)				<u> </u>	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗆	NA ☑		
				7	
Person Notified: Date	•	Phone ☐ Fax	☐ In Person		
By Whom: Via:	eMail	Phone [ ] rax	[ In reison		
Regarding: Client Instructions:			Control of the Contro		
				_	
17. Additional remarks:					
18. Cooler Information		A	r.		
Cooler No Temp °C Condition Seal Intact Seal No 1 2.8 Good Yes	Seal Date	Signed By			
li kro lead les	!		1		