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



105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

www.yatespetroleum.com

JOHN A. YATES

JOHN A. YATES JR.

DOUGLAS E. BROOKS
PRESIDENT
CHIEF EXECUTIVE OFFICER

JOHN D. PERINI
CHIEF FINANCIAL OFFICER

April 4, 2016

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

RE:

Juniper BIP Federal #5

30-015-28577

Section 4, T24S-R29E

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 January 1, 2016 (2RP-3501). The release was 60 barrels of produced water and 80 barrels of crude oil with 58 barrels of produced water and 78 barrels of crude oil recovered.

With NMOCD and BLM 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

Juniper BIP Federal #5

Section 4, T24S-R29E

Eddy County, New Mexico

April 4, 2016

#### I. Location

The release area is located: East from Malaga on Duarte Road (720) for 1.3 miles. Turn south on McDonald Road (746) and follow for approximately 3.1 miles. Turn northeast on Dogtown Road (788) and follow for approximately 2.9 miles. Turn east and follow lease road for approximately 0.6 miles. Turn north and follow lease road for approximately 1.5 miles. Turn east and follow road for approximately 0.4 miles. Turn south for approximately 0.2 miles. Turn west to Juniper BIP Federal #5.

#### II. Background

On January 1, 2016, Yates had a release of 60 barrels produced water and 80 barrels of crude oil with 58 barrels produced water and 78 barrels of crude oil recovered. The area affected from this release was within a lined/bermed battery and an area to the northwest of the location in the pasture. At the time of the release, Yates discovered there was an open berm drain valve on the northwest corner of the berm allowing released fluids to flow into the pasture. As a result of the release getting out of the lined/bermed battery, the berm drain valve has been capped in order to prevent a similar incident in the future. An initial Form C-141 was submitted, via e-mail, to the NMOCD District II on January 14, 2016.

On January 27, 2016 Yates visited the site and collected three initial soil samples from the surface of the release area using a shovel; the hard rock/caliche that was encountered prevented further delineation with a shovel. The release area was split into three separate sections for sampling. The surface 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 February 5, 2016 (Report 1601B19 attached to this work plan). The analytical results showed that chloride levels were within acceptable levels. The analytical results also showed that both BTEX and TPH were at levels above NMOCD RRAL's, prompting further delineation for BTEX and TPH.

Yates returned to the site on February 9, 2016 and collected soil samples from the depths of 1'-3' below the surface level with a backhoe for all three sections of the release area. Due to the hardness of the rock/caliche, the backhoe that was used could not successfully sample further than 3'. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B and TPH 8015M. Yates received the analytical results on February 18, 2016 (Report 1602541 attached to this work plan). The analytical results showed that BTEX and TPH levels had delineated to levels below NMOCD RRAL's in Section 3 of the release. The results also showed that BTEX and TPH levels were still above NMOCD RRAL's for both Sections 1 and 2 of the release area.

Yates returned to the site on March 8, 2016 and collected soil samples from the depths of 4'-6' below the surface level using a different backhoe for Sections 1 and 2 of the release area. The soil samples were sent to an approved NMOCD laboratory and tested for BTEX 8021B and TPH 8015M. Yates received the analytical results on March 15, 2016 (Report 1603548 attached to this work plan). The analytical results showed that BTEX and TPH had delineated to levels below NMOCD RRAL's in both Sections 1 and 2 of the release area.

#### 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 75' feet making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (10) based on the 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 caliche and hard rock. Hard rock/caliche was encountered from approximately 6" below the surface level and continued past the 6' level that sampling was stopped at.

#### V. Scope of Work

Based off the analytical reports which show complete vertical delineation, Yates proposes to remediate the soils to TPH and BTEX levels below NMOCD RRALs using Micro-Blaze.

- Heavy equipment will be used to break up the hard rock/caliche to allow the Micro-Blaze the ability to penetrate the impacted soils. The soils will be treated in place.
- Yates will mix in a 3% Micro-Blaze solution with the soils. The treated soils will be sampled at various spots/depths and turned every 30 days after the treatment, for a 90 day period. If at any time analytical results show TPH and BTEX levels have dropped below the NMOCD RRALs, Yates will ask for closure approval. If at the end of the 90 day period analytical results show that TPH and BTEX levels are still above the NMOCD RRALs, Yates will mix in a second treatment of 3% Micro-Blaze, sampling and turning the soils for an additional 90 day period.
- Anytime the stockpiled soils are turned, water will be added to the soils to reactivate the Micro-Blaze.

Once all soils are within NMOCD RRAL's, Yates will submit a Final Form C-141 to NMOCD requesting closure of this release.



# Juniper BIP Federal #5

	Sample Area	Sample Date	Analytical Report	Sample Type	Depth	В	F	Ш	×	BTEX	GRO	DRO	TOTAL	Chloride
1 - Surface	Release Area	1/27/2016	1601B19	Grab/Shovel	Surface	ND	15	12	63	06	1,200	19,000	20,200	QN
1-1	Release Area	2/9/2016	1602541	Grab/Backhoe		10	120	37	170	337	3,100	7,300	10,400	
1-2'	Release Area	2/9/2016	1602541	Grab/Backhoe	2.	0.4	8.7	5.6	28	42.7	530	900	1,430	•
1-3'	Release Area	2/9/2016	1602541	Grab/Backhoe	3,	0.33	8.4	5.7	28	42.43	630	860	1,490	
1-4"	Release Area	3/8/2016	1603548	Grab/Backhoe	.4	9	N	Ð	ND	QN	9	Ð	Q	
1 - 5'	Release Area	3/8/2016	1603548	Grab/Backhoe	5.	Q	ND	Q	ND	Q	Ð	Q	Q	
1-6'	Release Area	3/8/2016	1603548	Grab/Backhoe	.9	Q	Q	Q	QN	QN	Q	Ð	QN	1
2 - Surface	Release Area	1/27/2016	1601B19	Grab/Shovel	Surface	ND	7.7	5.1	29	41.8	650	23,000	23,650	QN
2-1.	Release Area	2/9/2016	1602541	Grab/Backhoe	1.	33	210	52	240	535	5,100	5,400	10,500	•
2-2'	Release Area	2/9/2016	1602541	Grab/Backhoe	2.	0.058	0.52	0.52	2.9	3.998	67	9/	143	•
2-3'	Release Area	2/9/2016	1602541	Grab/Backhoe	3,	0.25	6.5	3.4	16	26.15	320	1,100	1,420	
2-4'	Release Area	3/8/2016	1603548	Grab/Backhoe	4.	Q	ND	Q.	N	Q	9	2	Q	•
2-5	Release Area	3/8/2016	1603548	Grab/Backhoe	5.	Q	N	ND	N	N	9	Q	Q	
2-6'	Release Area	3/8/2016	1603548	Grab/Backhoe	.9	Q	Ð	QN	ND	QN	Q	QN	Q	
3 - Surface	Release Area	1/27/2016	1601B19	Grab/Shovel	Surface	ND	35	25	84	144	1,900	29,000	30,900	170
3-1'	Release Area	2/9/2016	1602541	Grab/Backhoe	1.	82	360	80	350	875	6,800	6,800 11,000	17,800	
3-2'	Release Area	2/9/2016	1602541	Grab/Backhoe	2'	0.054	0.27	0.22	1.2	1.744	29	28	57	
3-3	Release Area	2/9/2016	1602541	Grab/Backhoe	3,	Q	0.087	0.090	0.56	0.7	17	20	67	

Site Ranking is TEN (10). Depth to Ground Water 50'-99' (approx. 50-75', per ChevronTexaco Trend Map).

All results are ppm.

Released: 60 B/PW, 80 B/O; Recovered: 58 B/PW, 78 B/O. Release Date: 1/1/2016. 2RP-3501



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

OrderNo.: 1601B19

February 05, 2016

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

**FAX** 

RE: Juniper BIP Federal #5

Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/29/2016 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

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order: 1601B19

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/5/2016

CLIENT:

Yates Petroleum Corporation

Project:

Juniper BIP Federal #5

Lab Order:

1601B19

Lab ID:

1601B19-001

Collection Date: 1/27/2016 11:58:00 AM

Client Sample ID: 1-Surface

Matrix: SOIL

Analyses

Result

Result

ND

**PQL Qual Units** 

**DF** Date Analyzed

**Batch ID** 

**EPA METHOD 300.0: ANIONS** 

Chloride

ND

30

mg/Kg

2/1/2016 9:53:06 PM

Analyst: LGT 23515

Lab ID:

1601B19-002

Collection Date: 1/27/2016 12:00:00 PM

Matrix: SOIL

Analyses

Client Sample ID: 2-Surface

**PQL Qual Units** 

**DF** Date Analyzed

**Batch ID** 

**EPA METHOD 300.0: ANIONS** 

30

mg/Kg

2/1/2016 10:05:32 PM

Analyst: LGT 23515

Lab ID:

1601B19-003

Collection Date: 1/27/2016 12:02:00 PM

Matrix: SOIL

Analyses

Chloride

Client Sample ID: 3-Surface

**PQL Qual Units** 

**DF** Date Analyzed

**Batch ID** 

Result

Analyst: LGT

**EPA METHOD 300.0: ANIONS** Chloride

170

30

mg/Kg

20 2/1/2016 10:42:47 PM 23515

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

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits Page 1 of 2

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B19

05-Feb-16

Client:

Yates Petroleum Corporation

Project:

Juniper BIP Federal #5

Sample ID MB-23515

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 23515

PQL

PQL

RunNo: 31841

SPK value SPK Ref Val %REC LowLimit

Prep Date: 2/1/2016

Analysis Date: 2/1/2016

SeqNo: 974435

Units: mg/Kg

HighLimit

Analyte

Result

%RPD

**RPDLimit** 

Qual

Chloride

ND 1.5

Sample ID LCS-23515

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 23515

RunNo: 31841

SeqNo: 974436

Units: mg/Kg

Prep Date: 2/1/2016

Analysis Date: 2/1/2016

SPK value SPK Ref Val %REC LowLimit HighLimit

%RPD **RPDLimit** 

Qual

Analyte

Result

Chloride

110

14 1.5 15.00 0 94.1 90

#### Qualifiers:

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

Page 2 of 2



Hall Environmental Analysis Laboratory 4901 Howkins NE

Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 595-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Yates Petroleum Corpora Work Order Number: 1601B19 RoptNo: 1 Received by/date: Logged By: Lindsay Mangin 1/29/2016 9:00:00 AM 1/29/2016 1:47:06 PM Completed By: Lindsay Mangin Reviewed By: Chain of Custody Yes V No Not Present 1 Custody seals intact on sample bottles? Yes V No Not Present 2. Is Chain of Custody complete? 3 How was the sample delivered? Courier Log In No NA | Yes V 4. Was an attempt made to cool the samples? Were all samples received at a temperature of >0° C to 6.0°C No . NA No 6 Sample(s) in proper container(s)? Yes V No 7. Sufficient sample volume for indicated test(s)? Yes V No 8. Are samples (except VOA and ONG) properly preserved? No V NA 9. Was preservative added to bottles? Yes No VOA Vials V 10. VOA vials have zero headspace? Yes No 🗌 Yes -No V 11. Were any sample containers received broken? # of preserved bottles checked No . for pH: 12. Does paperwork match bottle labels? Yes V (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 13. Are matrices correctly identified on Chain of Custody? Yes V No 14. Is it clear what analyses were requested? No Checked by Yes V 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes NA V 16. Was client notified of all discrepancies with this order? No \_\_ Person Notified: Date By Whom Via: eMail Phone Fax Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp C Condition Seal Intact Seal No Seal Date Signed By 1.0 Good

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

February 05, 2016

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

**FAX** 

RE: Juniper BIP Federal #5

OrderNo.: 1601B19

#### Dear Amber Griffin:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/29/2016 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

4901 Hawkins NE

Albuquerque, NM 87109

## Lab Order 1601B19

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Juniper BIP Federal #5 Project:

Lab ID:

1601B19-001

Client Sample ID: 1-Surface

Collection Date: 1/27/2016 11:58:00 AM

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	6				Analys	: TOM
Diesel Range Organics (DRO)	19000	980		mg/Kg	100	2/4/2016 9:50:55 AM	23511
Surr: DNOP	0	70-130	S	%Rec	100	2/4/2016 9:50:55 AM	23511
EPA METHOD 8015D: GASOLINE R.	ANGE					Analys	: NSB
Gasoline Range Organics (GRO)	1200	240		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Surr: BFB	185	66.2-112	S	%Rec	50	2/2/2016 9:53:43 PM	23477
<b>EPA METHOD 8021B: VOLATILES</b>						Analys	: NSB
Methyl tert-butyl ether (MTBE)	ND	4.7		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Benzene	ND	1.2		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Toluene	15	2.4		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Ethylbenzene	12	2.4		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Xylenes, Total	63	4.7		mg/Kg	50	2/2/2016 9:53:43 PM	23477
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	50	2/2/2016 9:53:43 PM	23477

Matrix: SOIL

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
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 6 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1601B19

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Project: Juniper BIP Federal #5

Lab ID: 1601B19-002

Client Sample ID: 2-Surface

Collection Date: 1/27/2016 12:00:00 PM

Received Date: 1/29/2016 9:00:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3				Analyst	: ТОМ
Diesel Range Organics (DRO)	23000	930		mg/Kg	100	2/4/2016 10:18:07 AM	23511
Surr: DNOP	0	70-130	S	%Rec	100	2/4/2016 10:18:07 AM	23511
EPA METHOD 8015D: GASOLINE RA	ANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	650	230		mg/Kg	50	2/1/2016 10:49:08 PM	23477
Surr: BFB	151	66.2-112	S	%Rec	50	2/1/2016 10:49:08 PM	23477
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Methyl tert-butyl ether (MTBE)	ND	4.7		mg/Kg	50	2/2/2016 10:17:00 PM	23477
Benzene	ND	1.2		mg/Kg	50	2/2/2016 10:17:00 PM	23477
Toluene	7.7	2.3		mg/Kg	50	2/2/2016 10:17:00 PM	23477
Ethylbenzene	5.1	2.3		mg/Kg	50	2/2/2016 10:17:00 PM	23477
Xylenes, Total	29	4.7		mg/Kg	50	2/2/2016 10:17:00 PM	23477
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	50	2/2/2016 10:17:00 PM	23477

Matrix: SOIL

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
- 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 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1601B19

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Yates Petroleum Corporation

Juniper BIP Federal #5 Project:

Lab ID: 1601B19-003 Client Sample ID: 3-Surface

Collection Date: 1/27/2016 12:02:00 PM Received Date: 1/29/2016 9:00:00 AM

**DF** Date Analyzed Analyses Result **PQL Qual Units** Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) 29000 990 mg/Kg 100 2/4/2016 10:45:25 AM Surr: DNOP 0 70-130 S %Rec 100 2/4/2016 10:45:25 AM 23511 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 1900 480 100 2/1/2016 11:12:32 PM mg/Kg 23477 Surr: BFB 66.2-112 S 170 %Rec 100 2/1/2016 11:12:32 PM 23477 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Methyl tert-butyl ether (MTBE) ND 9.6 100 2/2/2016 10:40:15 PM mg/Kg 23477 Benzene ND 100 2/2/2016 10:40:15 PM 2.4 mg/Kg Toluene 35 4.8 mg/Kg 100 2/2/2016 10:40:15 PM 23477 Ethylbenzene 25 4.8 mg/Kg 100 2/2/2016 10:40:15 PM Xylenes, Total 84 9.6 mg/Kg 100 2/2/2016 10:40:15 PM 23477 Surr: 4-Bromofluorobenzene 123 80-120 S %Rec 100 2/2/2016 10:40:15 PM 23477

Matrix: SOIL

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
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 6 J

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

# **OC SUMMARY REPORT**

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B19

05-Feb-16

Client:

Yates Petroleum Corporation

Project:

Juniper BIP Federal #5

Sample ID MB-23551

SampType: MBLK

Batch ID: 23551

%REC

Client ID:

RunNo: 31874

TestCode: EPA Method 8015M/D: Diesel Range Organics

Prep Date:

Surr: DNOP

PBS

PQL

Units: %Rec

130

Analyte

2/3/2016

Analysis Date: 2/3/2016

SeqNo: 975374

HighLimit

LowLimit 98.0 70 %RPD **RPDLimit** Qual

Sample ID LCS-23551

SampType: LCS

9.8

Result

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: Prep Date:

LCSS

2/3/2016

Batch ID: 23551 Analysis Date: 2/3/2016 RunNo: 31874

SeqNo: 975375

Units: %Rec

%RPD

Analyte Surr: DNOP

Client ID:

Prep Date:

Result 4.8 PQL SPK value SPK Ref Val

%REC 95.3

LowLimit HighLimit 70 130 **RPDLimit** 

Qual

Sample ID MB-23511

SampType: MBLK

5.000

SPK value SPK Ref Val

10.00

TestCode: EPA Method 8015M/D: Diesel Range Organics

RunNo: 31874

Units: mg/Kg

Analyte Diesel Range Organics (DRO) Surr: DNOP

2/1/2016

PBS

Result

ND

Batch ID: 23511 Analysis Date: 2/3/2016

10.00

SeqNo: 975961

104

HighLimit

%RPD **RPDLimit** 

Qual

Sample ID LCS-23511

Prep Date: 2/1/2016

10

SampType: LCS

**PQL** 

10

SPK value SPK Ref Val %REC LowLimit

0

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID:

LCSS

Batch ID: 23511

RunNo: 31874

70

130

Analyte

Analysis Date: 2/3/2016

**PQL** 

SeqNo: 975962 SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg

%RPD **RPDLimit** Qual

Diesel Range Organics (DRO) Surr: DNOP

57 6.0

Result

10 50.00 5.000 113 120 65.8 70 136 130

HighLimit

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R % 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 J

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 4 of 6

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B19

05-Feb-16

Client:

Yates Petroleum Corporation

Project:

Juniper BIP Federal #5

Sample ID MB-23477	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch	ID: 23	477	F	RunNo: 3	1822				
Prep Date: 1/29/2016	Analysis D	ate: 2/	1/2016	S	SeqNo: 9	74200	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	910		1000		91.1	66.2	112			
Sample ID LCS-23477	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: LCSS	Batch	1D: <b>23</b>	477	F	RunNo: 3	1822				
Prep Date: 1/29/2016	Analysis D	ate: 2	1/2016	S	SeqNo: 9	74202	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	79.6	122			***************************************
	12020000		1000		99.8	66.2	112			
Surr: BFB	1000		1000		99.0	00.2	112			

Surr: BFB	930	1000	93.2 66.2	112			
Analyte	Result PQL S	PK value SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date: 2/1/2016	Analysis Date: 2/2/2	016 Se	qNo: <b>974988</b>	Units: %Rec			
Client ID: PBS	Batch ID: 23504	l Ru	nNo: 31851				
Sample ID MB-23504	SampType: MBL	lestC	ode: EPA Method	l 8015D: Gasoli	ne Range	•	

Sample ID LCS-23504	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch	ID: 23	504	F	RunNo: 3	1851				
Prep Date: 2/1/2016	Analysis D	ate: 2/	2/2016	S	SeqNo: 9	74989	Units: %Re	C		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	980		1000		98.0	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

Page 5 of 6

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#:

1601B19

05-Feb-16

Client:

Yates Petroleum Corporation

Project:

Juniper BIP Federal #5

Sample ID MB-23477	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	1D: 23	477	F	RunNo: 3	1822				
Prep Date: 1/29/2016	Analysis D	ate: 2/	1/2016	5	SeqNo: 9	74231	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10						***************************************		
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID LCS-23477	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batcl	n ID: 23	477	F	RunNo: 3	1822				
Prep Date: 1/29/2016	Analysis E	Date: 2/	1/2016	\$	SeqNo: 9	74232	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.3	0.10	1.000	0	126	67.2	121			S
Benzene	1.1	0.050	1.000	0	113	80	120			
Toluene	1.1	0.050	1.000	0	114	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID MB-23504	SampT	ype: MI	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	1D: 23	504	F	RunNo: 3	1851				
Prep Date: 2/1/2016	Analysis D	ate: 2	/2/2016	5	SeqNo: 9	75028	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Surr: 4-Bron	nofluorobenzene	1.2		1.000		117	80	120			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date:	2/1/2016	Analysis D	ate: 2	2/2016	8	SeqNo: 9	75029	Units: %Red	•		
Client ID:	LCSS	Batch	1D: <b>23</b>	504	F	RunNo: 3	1851				
Sample ID	LCS-23504	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		

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 6 of 6

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 Howkins NE

Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4167 Website: www.hallenvironmental.com

# Sample Log-In Check List

				HISTORICA CONTRACTORICA CONTRACTORICA CONTRACTORICA CONTRACTORICA CONTRACTORICA CONTRACTORICA CONTRACTORICA CO			
Client Name.	Yates Petroleum Corpora	Work Order Number:	1601B	19		Ropl	No: 1
Received by/date:	3H	orkally			2000		
Logged By:	Lindsay Mangin	1/29/2016 9:00:00 AM			James Houge		
Completed By:	Lindsay Mangin	1/29/2016 1:47:06 PM			Judy Hlygo		
Reviewed By:	$O_3$	01/29/16					
Chain of Custo	ody /	01/01/10					
	intact on sample bottles?		Yes	<b>~</b>	No 🗌	Not Present	and the state of t
2. Is Chain of Cu	istody complete?		Yes	~	No 🗔	Not Present	enter of
3. How was the s	sample delivered?		Couri	er			
Login							
Log In	npt made to cool the sample:	-2	Yes		No 🗔	NA	
4. Was an atten	ipt made to coci the sample	5 f	143		NO TO	1323	haurre.
5. Were all samp	ples received at a temperatu	re of >0° C to 6.0°C	Yes	~	No []	NA	and the same
				E.el	ua (T		
6. Sample(s) in	proper container(s)?		Yes	Y	No		
7. Sufficient sam	ple volume for indicated tes	t(s)?	Yes	Y	No 🗔		
8. Are samples (	(except VOA and ONG) prop	erly preserved?	Yes	<b>Y</b>	No 🗔		
9. Was preserva	tive added to bottles?		Yes	Married Marrie	No 🗹	NA	
10 VOA viale ha	ve zero headspace?		Yes		No 🗌	No VOA Vials	<b>▽</b> .
	Professional Profession State (Control Control	skan?	Yes	[]	No 🗹		and the second s
11. vvere any sai	mple containers received bro	seir	163		110	# of preserved bottles checke	
12. Does paperwe	ork match bottle labels?		Yes	<b>V</b>	No 🖂	for pH:	
	ancies on chain of custody)						(<2 or >12 unless noted)
13. Are matrices	correctly identified on Chain	of Custody?	Yes		No 🗌	Adjusted	¥?
14, Is it clear wha	at analyses were requested?		Yes		No 🗔	_	
	ing times able to be met?		Yes	<b>V</b>	No	Checked	by:
(if no, notify c	customer for authorization.)	獲					
Special Handl	ling (if applicable)						
	otified of all discrepancies wi	th this order?	Yes	Patrick P	No 🗌	NA	Jahren E
	Notified:	Date	n ar ianteurian (uz industi	and the Helicate Herita	ELEVERNORIS CONTRACTOR		
By Who	# Upper Company of Com	Via:	eM.	all [T	Phone Fax	In Person	
Regard	Secretarion de la companya del companya de la companya del companya de la companya del la companya de la compan	Y TEL	PRODUCTION OF THE PROPERTY OF	Lund	Janierskanteren Strategin Steeren Strategin in der	Appropriate the second	SOUTHER
1 Total	nstructions:		September 200	NORGHAN AND AND AND AND AND AND AND AND AND A	онившин илишиналиции синовыки полуктического календа	CONTROL OF	Ministrative
17. Additional re							
18. Cooler Info Cooler No	- 100 CONT 1000 - 100 CONT 1000 - 10000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 100	Seal Intact   Seal No	Seal D	ate I	Signed By	ĺ	
[1		Yes	unional and and an extensive section of the section	SAMESIA PROGRAMMA	engrise sy	1	
· ·	- M2					•	

TAL	ORY			Tel. 505-345-3975 Fax 505-345-4107		(M to Y) selddu8 niA											action to the same of the same	-	echtimous.		00.00 11310 (0000 0 ) (0000 0 )	and the house of the	promised a	now BTEX s separate	
HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109		Analy	BTEX + MTBE + TPH (Gas only TPH Method 8015B (Gas/Diese TPH (Method 604.1)  TPH (Method 504.1)  BO310 (PMA or PAH)  RCRA 8 Metals  ROR1 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's						×	×	×								esperial (19)	Remarks: TPH: 8015B, BTEX: 8021B. Please show BTEX results as mg/kg. Please put chloride results on a separate	Dále Timé report, mank you:	
lum-Around IIme:	X Standard   Rush	Project Name:	Juniper BIP Federal #5	Project #:	2RP-3501	Project Manager:	Amber Griffin	PO # 205-2020	r: Amber Griffin	On ice: IX Yes 🗆 No	Sample Temperature: / ()	Container Preservativ HEAL No.	1-40z. Ice -001 x	1-4oz. Ice 202 x	1-402. Ice X									Received by: Date Time Re	Received by: 'Dáfe' Timé re
Chain-of-Custody Record	lient: Yates Petroleum Corporation		lailing Address:	05 South 4th Street Artesia, NM 88210	hone #: 575-513-8799 or 575-748-4111	-ax#: acriffin@yatespetroleum.com		1 Standard	on:	1 NELAP 🗆 Other	1 EDD (Type)	Date Time Matrix Sample Request ID	/27/2016 11:58 Soil 1 - Surface	12:00 Soil 2 - Surface	12:02 Soil 3 - Surface	HOMESHA								:: Z	Refinquished by: