District I 1625 N. French Dr., Hobbs, NM 88240 811 S. First St., Artesia, NM 88210 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy Minerals and Natural Resources

Form C-141

Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification	and Corrective	Action		
	OPERATOR		Initial Report	0

and build	100				OPERA	TOR	Init	ial Report	$\bowtie$	Final Repor
Name of Co	ompany: X	TO Energy,	Inc.		Contact: Re	ex Farnsworth				
Address: 38	32 Road 31	100, Aztec, N	New Mex	ico 87410	Telephone	No.: (505) 333-	3100	1 1 M		186
Facility Na	me: Federa	al Gas Com	1 #1C		Facility Ty	pe: Gas Well (B	lanco Mesaverdo	e)		
Surface Ow	ner: Feder	ral		Mineral (	Owner	THE FIRST	API N	o.: 30-045-3	0144	THE LEE
				LOCA	ATION OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County		4 15
D	20	32N	12W	1060	FNL	660	FWL	San Juan		

Longitude -108.124597 Latitude 36.976050

#### NATURE OF RELEASE Volume Recovered: 70 BBL's Volume of Release: 180 BBL's Type of Release: Produced Oil / Produced Water Source of Release: Production Tank Date and Hour of Occurrence: Date and Hour of Discovery: 12-30-2015 12/30/2015 Time: Unknown Was Immediate Notice Given? If YES, To Whom? Cory Smith (NMOCD) OIL CONS. DIV DIST. 3 By Whom? James McDaniel (EHS Supervisor XTO Energy) Date and Hour: 12-30-2015 4:30 pm Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ⊠ No FEB 18 2016

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* On Wednesday, 12-30-2015 an XTO Foreman found the steel production tank on the Federal Gas Com 1#1C location leaking from the load line valve. The XTO Foreman determined by the ending gauge of the tank that approximately 180 barrels of total fluid, 20 barrels of produced water and 160 barrels of produced oil has been released. The spill was contained within the berm and never left location. The XTO Foreman then called Triple S Trucking to help aid with product recovery and notified EH&S. The Foreman was able to recover approximately 70 barrels of produced fluid. The site was then ranked according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 20 due to an estimated depth to groundwater of 50 to 100 feet and an arroyo less than 1000 feet. This set the closure standard to 100 ppm TPH, 10 ppm benzene, and 50 ppm total

Describe Area Affected and Cleanup Action Taken. \*A release has been confirmed based a broken load line valve on the production tank and the loss of 110 barrels of fluid that was not recovered. XTO removed approximately 1500 cu yds.of impacted soil and the dimensions of the excavation are 100'x 60' x 4' deep east end, 8' deep in the center, and 12' deep at the west end of the excavation. All samples collected for lab analysis were witnessed by NMOCD employees Jonathan Kelly (two samples (2)) and Vanessa Fields (all other samples). All but four samples returned results below the NMOCD standards for this location. The four samples that returned results above the guideline standards are: Middle Shelf: TPH 140ppm DRO, 25ppm GRO and almost all ND BTEX this is a Solid Sandstone Shelf

NW Wall: TPH 210ppm DRO, 13ppm GRO, and almost all ND BTEX this is a Very Hard Dark Shale Wall

West Wall: TPH 150ppm DRO, 13ppm GRO, and almost all ND BTEX, this is a Very Hard Dark Shale Wall directly below the compressor building wall.

South West Bottom: TPH 250ppm DRO, 13ppm GRO and almost all ND BTEX this is Very Hard Solid Sandstone and the track hoe is unable to excavate this area any deeper. XTO believes the results that are slightly above TPH standards, but existing in very hard shale and sandstone do not pose a risk to human health and the environment due to the majority of the TPH values being attributed to non-mobile diesel range organics, Benzene and BTEX results are below the NMOCD regulatory limits for all samples collected. Closure has been approved at these NMOCD acceptable levels and no further action is required.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Initial Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.



Approved by Environmental Specialist:	N DIVISION
Approval Date: 02133116 Expiratio	n Date:
Conditions of Approval:	Attached
	Approval Date: 02/23/16 Expiration

\* Attach Additional Sheets If Necessary

NCS 1536539728

### Hoekstra, Kurt

From: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Sent: Monday, February 15, 2016 8:15 AM

To: Hoekstra, Kurt; Powell, Brandon, EMNRD; Smith, Cory, EMNRD

Cc: Katherina Diemer (kdiemer@blm.gov); McDaniel, James; Hixon, Logan; Farnsworth, Rex;

Baxstrom, Scott; Beaty, Brent; McCollum, Luke

Subject: RE: Proposed Closure at the Federal Gas Com 1 # 1C

Categories: External Sender

#### Kurt,

Based on the provided information below and the OCD's site assessment, XTO has the OCD's approval to close the release at the Federal gas Com 1 #1C. As this site is also under the regulatory purview of the BLM, we recommend XTO obtain their approval prior to backfilling.

OCD approval does not relieve XTO of any additional requirements imposed by other regulatory agencies.

Thank you, Vanessa Fields

From: Hoekstra, Kurt [mailto:Kurt Hoekstra@xtoenergy.com]

Sent: Friday, February 12, 2016 2:44 PM

To: Fields, Vanessa, EMNRD < Vanessa. Fields@state.nm.us >; Powell, Brandon, EMNRD < Brandon. Powell@state.nm.us >;

Smith, Cory, EMNRD < Cory. Smith@state.nm.us>

Cc: Katherina Diemer (kdiemer@blm.gov) <kdiemer@blm.gov>; McDaniel, James <James McDaniel@xtoenergy.com>; Hixon, Logan <a href="Logan Hixon@xtoenergy.com">Logan Hixon@xtoenergy.com</a>; Farnsworth, Rex <a href="Rex Farnsworth@xtoenergy.com">Rex Farnsworth@xtoenergy.com</a>; Baxstrom, Scott <a href="Scott Baxstrom@xtoenergy.com">Scott Baxstrom@xtoenergy.com</a>; Beaty, Brent <a href="Beaty@xtoenergy.com">Beaty@xtoenergy.com</a>; McCollum, Luke

<Luke McCollum@xtoenergy.com>

Subject: Proposed Closure at the Federal Gas Com 1 # 1C

#### Hello Vanessa,

XTO is proposing closure of the excavation for the release at the Federal Gas Com 1 # 1C. Approximately 1500 cu yds. of material has been removed and the dimensions of the excavation are 100'x 60' x 4' deep east end, 8' deep in the center, and 12' deep at the west end of the excavation. All samples collected for lab analysis were witnessed by NMOCD employees Jonathan Kelly (two samples (2)) and Vanessa Fields (all other samples). The site was ranked a 20 according to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. This set the closure standards to 100 ppm TPH, 50 ppm total BTEX and 10 ppm Benzene.

All but four samples returned results below the NMOCD standards for this location. The four samples that returned results above the guideline standards are:

Middle Shelf: TPH 140ppm DRO, 25ppm GRO and almost all ND BTEX this is a Solid Sandstone Shelf NW Wall: TPH 210ppm DRO, 13ppm GRO, and almost all ND BTEX this is a Very Hard Dark Shale Wall West Wall: TPH 150ppm DRO, 13ppm GRO, and almost all ND BTEX, this is a Very Hard Dark Shale Wall directly below the compressor building wall.

South West Bottom: TPH 250ppm DRO, 13ppm GRO and almost all ND BTEX this is Very Hard Solid Sandstone and the track hoe is unable to excavate this area any deeper.

All sample results are attached. XTO believes the results that are slightly above TPH standards, but existing in very hard shale and sandstone do not pose a risk to human health and the environment due to the majority of the TPH values being attributed to non-mobile diesel range organics. Benzene and BTEX results are below the NMOCD regulatory limits for all samples collected. Closure has already been discussed at these levels from the NMOCD based on conversations on location with Vanessa Fields. XTO would like to close this excavation at these NMOCD acceptable results and begin backfilling on 2-17-2016 at 8:00 am. Thank you for your help with this matter, If you have any questions or concerns please let me know. I will be awaiting your response so scheduled backfill operations can be completed.

Thank You.

Kurt Hoekstra
EHS Coordinator
XTO Energy
505-333-3202 Office
505-486-9543 Cell
Kurt Hoekstra@xtoenergy.com
An ExxonMobil Subsidiary



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

OrderNo.: 1601936

January 28, 2016

James McDaniel

XTO Energy

382 County Road 3100

Aztec, NM 87410

TEL: (505) 787-0519

FAX (505) 333-3280

RE: FEDERAL GC 1 #1C

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/26/2016 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

# Analytical Report Lab Order 1601936

Date Reported: 1/28/2016

1/26/2016 12:22:14 PM C31678

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: Bottom/East

Project: FEDERAL GC 1 #1C

Surr: 4-Bromofluorobenzene

Collection Date: 1/25/2016 3:25:00 PM Received Date: 1/26/2016 7:25:00 AM

Lab ID: 1601936-001

Matrix: SOIL

129

Analyses Result RL Qual Units **DF** Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: LGT 1/26/2016 11:26:41 AM 23417 Chloride ND 30 20 mg/Kg EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: KJH Diesel Range Organics (DRO) 1/26/2016 11:15:09 AM 23396 9.5 mg/Kg Surr: DNOP 88.2 %REC 1/26/2016 11:15:09 AM 23396 70-130 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 1/26/2016 12:22:14 PM A31678 Gasoline Range Organics (GRO) 32 8.8 mg/Kg 2 Surr: BFB 169 66.2-112 %REC 2 1/26/2016 12:22:14 PM A31678 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene 0.044 2 1/26/2016 12:22:14 PM C31678 ND mg/Kg Toluene 0.18 0.088 mg/Kg 2 1/26/2016 12:22:14 PM C31678 Ethylbenzene 0.088 2 1/26/2016 12:22:14 PM C31678 0.14 mg/Kg Xylenes, Total 1.4 0.18 mg/Kg 2 1/26/2016 12:22:14 PM C31678

80-120

%REC

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 5
- P Sample pH Not In Range
- RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client:

XTO Energy

Project:

FEDERAL GC 1 #1C

Sample ID MB-23417 SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 23417

RunNo: 31710

Prep Date: 1/26/2016 Analysis Date: 1/26/2016

SPK value SPK Ref Val %REC LowLimit

SeqNo: 970391

Units: mg/Kg

%RPD

%RPD

**RPDLimit** 

Qual

Analyte Chloride

Client ID:

Prep Date:

Result PQL ND 1.5

Sample ID LCS-23417

SampType: LCS

TestCode: EPA Method 300.0: Anions

LCSS

Batch ID: 23417

RunNo: 31710

1/26/2016

Analysis Date: 1/26/2016

SeqNo: 970392

Units: mg/Kg HighLimit

**HighLimit** 

**RPDLimit** 

Qual

Analyte

PQL

%REC 95.2

90

LowLimit

110

SPK value SPK Ref Val Chloride 14 1.5 15.00 0

## )ualifiers:

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

Page 2 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1

1601936

28-Jan-16

Client:

XTO Energy

Project:

FEDERAL GC 1 #1C

the same of the sa	A section of the sect								12 E 20 1 E	A TOTAL OF THE PARTY OF THE PAR	
Surr: DNOP		8.3		10.00		82.8	70	130	يواعلا		
Diesel Range (	Organics (DRO)	ND	10								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date:	1/26/2016	Analysis D	ate: 1/	26/2016	\$	SeqNo: 9	68886	Units: mg/K	(g		
Client ID:	PBS	Batch	1D: 23	396	F	RunNo: 3	1661				
Sample ID	MB-23396	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	

Sample ID LCS-23396	Samp1	Type: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batcl	h ID: 23	396	F	RunNo: 3	1661				
Prep Date: 1/26/2016	Analysis D	Date: 1/	/26/2016	\$	SeqNo: 9	69383	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.3	65.8	136			
Surr: DNOP	3.9		5.000		77.4	70	130			

#### Qualifiers:

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

Page 3 of 5

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1601936

28-Jan-16

Client:

XTO Energy

Project:

FEDERAL GC 1 #1C

Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: A31678 RunNo: 31678 Prep Date: Analysis Date: 1/26/2016 SeqNo: 969794 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %RPD **RPDLimit** %REC LowLimit **HighLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 870 1000 86.9 66.2 112

Sample ID 2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID: LCSS	Batcl	D: A3	1678	F	RunNo: 3	1678				
Prep Date:	Analysis E	ate: 1/	26/2016	S	SeqNo: 9	69795	Units: mg/F	⟨g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.5	79.6	122	11 7-		NE S
Surr: BFB	1000		1000		102	66.2	112			

#### Qualifiers:

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

Page 4 of 5

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1601936

28-Jan-16

Client:

XTO Energy

Project:

FEDERAL GC 1 #1C

Sample ID 5ML RB Client ID: PBS		Type: ME		1.75	tCode: E		8021B: Vola	tiles		
Prep Date:	Analysis [	CONTRACTOR OF THE PARTY OF THE	26/2016		SeqNo: 9	(1.5.0.T.)	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050							Transition of	
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID 100NG BTEX LO	Samp	ype: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	n ID: C3	1678	F	RunNo: 3	1678				
Prep Date:	Analysis [	Date: 1/	26/2016	S	SeqNo: 9	69822	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.2	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

- 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 5

- P Sample pH Not In Range
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

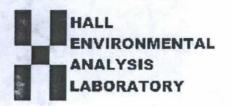
## Sample Log-In Check List

Client Name:	XTO Energy	Work Order Numbe	r: 1601936		RcptNo: 1	
Received by/da	te: A501/24	0/16				
Logged By:	Anne Thorne	1/26/2016 7:25:00 AM	И	anne Am		
Completed By:	Anne Thorne	1/26/2016		ann Ham		
Reviewed By:	Op	1/20/14		Cina yi	P. S. L.	
Chain of Cus	stody				100	
	als intact on sample bottles	5?	Yes	No 🗆	Not Present ✓	
2. Is Chain of	Custody complete?		Yes 🗹	No 🗆	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool the sam	ples?	Yes 🗹	No 🗆	NA 🗆	
5. Were all sar	mples received at a tempe	rature of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
6. Sample(s) i	n proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sa	ample volume for indicated	test(s)?	Yes 🗹	No 🗆		
8. Are samples	s (except VOA and ONG) p	roperly preserved?	Yes 🗹	No 🗆		
9. Was present	vative added to bottles?		Yes 🗆	No 🗹	NA 🗆	
10.VOA vials ha	ave zero headspace?		Yes 🗆	No 🗆	No VOA Vials	
11. Were any s	ample containers received	broken?	Yes 🗆	No 🗹	# of preserved	
					bottles checked	
	work match bottle labels? pancles on chain of custoo	(v)	Yes 🔽	No 🗌	for pH: (<2 or :	12 unless noted)
	s correctly identified on Chi		Yes 🗹	No 🗆	Adjusted?	LEE MEN
	nat analyses were requeste		Yes 🗹	No 🗆	A TOMER	
	ding times able to be met? customer for authorization		Yes 🗸	No 🗆	Checked by:	
	lling (if applicable)					
16. Was client n	otified of all discrepancies	with this order?	Yes 🗌	No 🗆	NA 🗹	
	n Notified:	Date				
By Wh		Via:	eMail	Phone Fax	☐ In Person	
Regard		The second second second				
	Instructions:					
17. Additional re	emarks:					
18. Cooler Info				4.811		
Cooler No	o Temp °C Condition	Seal Intact   Seal No   Yes	Seal Date	Signed By		

SAME DAY

	aond	Quote Number							Analysis	5	Lab Information	mation
			1		Page of	-						
	ex.	XTO Contact		×W	XTO Contact Phone # 565 - 486 -954	**************************************						
ENERGY			Email	Email Results to:	ä		or ,			P	O45: 41-1	
Western Division	JAMES	Kuer	LORAN	2	X		v				Farmington = FAR	FAR
FEDERAL GR. 141C	30-045	lumber -	44		Test Reason						Durango = DUR Bakken = BAK	æ _
Collected By	Samps	es on Ice		-	Turnaround			7			Raton = RAT	
Company	ONIO	OA/OC Doguestod		X Ma	Nort-Dou SAME DAY	744	Ho	2		Y.	Rooteuelt = RfU	0
1		//		1 1	Two Day		11	187			La Barge = LB	
Signature / //	KILLBER			E P	Three Day	Contract		Vic	777		Orangeville = OV	00
Land blac bille				Date Needed	eded		51	7	io'			
Sample ID	Sample Name	Modin	Date	Time	December	No. of	0.8	0.8				
EAGUST - 1525	R / Car		200	2.00	LIESEI ARTINE		>	>		+		
CHE CICAL CALL	DELTOWA CHO	1100	1	0.6	971 100	1907	+	1	1	-		
						Medicat	+	+		+		
						Walzing.	+	+	1	+		
							$\dagger$	+	1	-		
								H				
								+	1			
								+				
		ų.						+				
							1	+				
								H				
Media: Filter = K Soil = 5 /Wasfewe	Wasfewater = WW Groundwater = GW		nking W	Drinking Waster = DW	Sludge = SG	Surface Water = SW	WS = -	Air = A		Drill Mud = DM	Other = OT	
Relinquished By (Signature)		Date: 1-25-16	16	Time:	Received By: (Signature)	mature)						
Relinquished By: (Signature)	ets	Date	1/10	Time:	Received By: (Sig	mature)			Limiti =			
Relinquished By: (Signature)		Date		Times			B					
								A	SHIP TO THE PARTY OF THE PARTY	THE WAY STATE OF THE PARTY OF T		OMESTING OF THE PARTY OF THE PA

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200



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

OrderNo.: 1601B41

February 05, 2016

Kurt Hoekstra XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519 FAX (505) 333-3280

RE: Federal Gas Com 1 # 1C

Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 1 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

## **Analytical Report**

Lab Order 1601B41

Date Reported: 2/5/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Lab ID:

Client Sample ID: Farkh-012716-1015 N. Wall End

Collection Date: 1/27/2016 10:15:00 AM

Project: Federal Gas Com 1 # 1C

1601B41-001

Matrix: SOIL

Received Date: 1/29/2016 8:10:00 AM

Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	2/4/2016 11:12:57 AM	23511
Surr: DNOP	89.2	70-130	%Rec	1	2/4/2016 11:12:57 AM	23511
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: BFB	90.4	66.2-112	%Rec	1	2/3/2016 12:13:09 AM	23504
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.048	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Toluene	ND	0.048	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Ethylbenzene	ND	0.048	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Xylenes, Total	ND	0.097	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	1	2/3/2016 12:13:09 AM	23504
	15.434	(F) (F) (F) (F) (F)				_

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits J Page 1 of 4
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B41

05-Feb-16

Client:

XTO Energy

Sample ID MB-23551	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 23551	RunNo: 31874		
Prep Date: 2/3/2016	Analysis Date: 2/3/2016	SeqNo: 975374	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: DNOP	9.8 10.00	98.0 70	130	
Sample ID LCS-23551	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 23551	RunNo: 31874		
Prep Date: 2/3/2016	Analysis Date: 2/3/2016	SeqNo: 975375	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qua
Surr: DNOP	4.8 5.000	95.3 70	130	
Sample ID MB-23511	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 23511	RunNo: 31874		
Prep Date: 2/1/2016	Analysis Date: 2/3/2016	SeqNo: 975961	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qua
Diesel Range Organics (DRO)	ND 10		7777	
Surr: DNOP	10 10.00	104 70	130	
Sample ID LCS-23511	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	PIR
Client ID: LCSS	Batch ID: 23511	RunNo: 31874		
Prep Date: 2/1/2016	Analysis Date: 2/3/2016	SeqNo: 975962	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qua
Diesel Range Organics (DRO)	57 10 50.00	0 113 65.8	136	
Surr: DNOP	6.0 5.000	120 70	130	

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Page 2 of 4

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

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B41

05-Feb-16

Client:

XTO Energy

Federal Gas Com 1 # 1C

Sample ID MB-23504	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 23504	RunNo: 31851
Prep Date: 2/1/2016	Analysis Date: 2/2/2016	SeqNo: 974988 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qua
Gasoline Range Organics (GRO)	ND 5.0	
Surr. BFB	930 1000	93.2 66.2 112
Sample ID LCS-23504	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 23504	RunNo: 31851
Prep Date: 2/1/2016	Analysis Date: 2/2/2016	SeqNo: 974989 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	25 5.0 25.00	0 101 79.6 122
Surr: BFB	980 1000	98.0 66.2 112
Sample ID MB-23523	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 23523	RunNo: 31884
Prep Date: 2/2/2016	Analysis Date: 2/3/2016	SeqNo: 975769 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	890 1000	89.4 66.2 112
Sample ID LCS-23523	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 23523	RunNo: 31884
Prep Date: 2/2/2016	Analysis Date: 2/3/2016	SeqNo: 975770 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	990 1000	99.5 66.2 112

#### Qualifiers:

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

Page 3 of 4

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1601B41

05-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 # 1C

Sample ID MB-23504	Samp	Type: ME	DLN		toode. L	PA Method	00210. 1014	tiles		
Client ID: PBS	Bato	h ID: 23	504	F	RunNo: 3	1851				
Prep Date: 2/1/2016	Analysis I	Date: 2/	2/2016		SeqNo: 9	75028	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050				BART	7 4 3			
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			
Sample ID LCS-23504	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles	A STATE OF	
Sample ID LCS-23504 Client ID: LCSS		Type: LC			tCode: El		8021B: Vola	tiles		
		h ID: 23	504	F		1851	8021B: Volat			
Client ID: LCSS	Bato	h ID: 23	504 2/2016	F	RunNo: 3	1851			RPDLimit	Qual
Client ID: LCSS Prep Date: 2/1/2016 Analyte	Batc Analysis I	h ID: 23 Date: 2/	504 2/2016	F	RunNo: 3 SeqNo: 9	1851 75029	Units: mg/K	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 2/1/2016 Analyte Benzene	Bato Analysis I Result	h ID: 23 Date: 2/	504 2/2016 SPK value	SPK Ref Val	RunNo: 3 SeqNo: 9 %REC	1851 75029 LowLimit	Units: mg/K	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 2/1/2016	Analysis I Result	h ID: 23 Date: 2/ PQL 0.050	504 2/2016 SPK value 1.000	SPK Ref Val	RunNo: 3 SeqNo: 9 %REC 103	1851 75029 LowLimit 80	Units: mg/K HighLimit	(g	RPDLimit	Qual
Client ID: LCSS Prep Date: 2/1/2016 Analyte Benzene Toluene	Analysis I Result 1.0	PQL 0.050 0.050	504 2/2016 SPK value 1.000 1.000	SPK Ref Val 0 0	RunNo: 3 SeqNo: 9 %REC 103 109	1851 75029 LowLimit 80 80	Units: mg/K HighLimit 120 120	(g	RPDLimit	Qual

Sample ID MB-23523	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	ID: 23	523	F	RunNo: 3	31884				
Prep Date: 2/2/2016	Analysis D	ate: 2	/3/2016		SeqNo: 9	75781	Units: %Re	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0	1100	1.000		103	80	120			AND 19

Surr 4-Bromofluorobenzene	12		1,000		120	80	120			MITTER
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date: 2/2/2016	Analysis D	ate: 2	/3/2016	5	SeqNo: 9	75782	Units: %Re	С		
Client ID: LCSS	Batch	1D: 23	523	F	RunNo: 3	31884				
Sample ID LCS-23523	SampT	ype: LC	CS	Tes	tCode: E	PA Method	8021B: Vola	tiles		

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 4



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

2. Is Chain of 3. How was t  Log In  4. Was an at	Lindsay Mangin  Extody  eals intact on sample bottles?  f Custody complete?  the sample delivered?  ttempt made to cool the sample  amples received at a temperate				Not Present ☑ Not Present ☐	
Completed By: Reviewed By: Chain of Cu  1. Custody so 2. Is Chain of 3. How was t  Log In  4. Was an at	eals intact on sample bottles?  f Custody complete?  the sample delivered?  ttempt made to cool the sample  amples received at a temperate	1/29/2016 8:10:00 AM 1/29/2016 2:59:54 PM OZ OI II	Yes ☐ Yes ✔	No 🗆	Not Present	
Completed By Reviewed By: Chain of Cu  1. Custody so 2. Is Chain of 3. How was t  Log In  4. Was an at	eals intact on sample bottles?  f Custody complete?  the sample delivered?  ttempt made to cool the sample  amples received at a temperate	1/29/2016 2:59:54 PM	Yes ☐ Yes ✔	No 🗆	Not Present	
Chain of Cu  1. Custody so  2. Is Chain of  3. How was t  Log In  4. Was an at	eals intact on sample bottles? If Custody complete? The sample delivered?  Itempt made to cool the sample amples received at a temperate	02 01 110 es?	Yes ☐ Yes ✔	No 🗆	Not Present	
1. Custody so 2. Is Chain of 3. How was t Log In 4. Was an at	eals intact on sample bottles?  If Custody complete?  the sample delivered?  Itempt made to cool the sample  amples received at a temperate	es?	Yes <b>Y</b>	No 🗆	Not Present	
1. Custody so 2. Is Chain of 3. How was t  Log In 4. Was an at	eals intact on sample bottles?  f Custody complete?  the sample delivered?  ttempt made to cool the sample  amples received at a temperate		Yes <b>Y</b>	No 🗆	Not Present	
2. Is Chain of 3. How was t  Log In  4. Was an at	f Custody complete? the sample delivered? ttempt made to cool the sample amples received at a temperate		Yes <b>Y</b>	No 🗆	Not Present	
3. How was t Log In 4. Was an at	the sample delivered?		Courier			
Log In  4. Was an at	ttempt made to cool the sample			No □	NA 🗆	
4. Was an at	amples received at a temperate		Yes 🗸	No 🗆	NA 🗆	
	amples received at a temperate		Yes 🗸	No 🗌	NA 🗌	
5. Were all sa		ure of >0° C to 6.0°C				
5. Were all s.		ure of >0°C to 6.0°C				
			Yes 🗸	No L	NA 🗌	
6. Sample(s)	in proper container(s)?		Yes 🗸	No 🗆		
7 Sufficient s	sample volume for indicated te	ct/c)2	Yes 🗹	No 🗆		
	es (except VOA and ONG) pro		Yes 🗹	No 🗆		
	ervative added to bottles?	perly preserved?	Yes 🗌	No 🗹	NA 🗆	
o. mae prese	(					
10. VOA vials	have zero headspace?		Yes 🗌	No 🗆	No VOA Vials	
11. Were any	sample containers received bro	oken?	Yes 🗆	No ✓	# of preserved	A PORTE
12 0			v	No []	bottles checked for pH:	
The second secon	rwork match bottle labels? epancies on chain of custody)		Yes 🗸	No 📙		12 unless noted)
13. Are matrice	es correctly identified on Chain	of Custody?	Yes 🗸	No 🗆	Adjusted?	
14. Is it clear w	hat analyses were requested?		Yes 🗹	No 🗆		
	olding times able to be met? y customer for authorization.)		Yes 🗹	No 🗆	Checked by:	
(II 110, IIOII)	y customer for authorization.)					
Special Han	dling (if applicable)					
16. Was client	notified of all discrepancies wit	th this order?	Yes 🗌	No 🗆	NA 🗹	
Perso	on Notified:	Date				
By W	/hom:	Via:	eMail	Phone Fax	☐ In Person	
Rega	rding:	The control of the co		The state of the s		
Client	t Instructions:		4	A SALES AND SECURITY OF THE SE		
17. Additional	remarks:					
18. Cooler Inf	ormation					
Cooler		Seal Intact   Seal No	Seal Date	Signed By	4	

	Quot	Quote Number			Page   of			Analysis	SIS!	Lab Information.	tion.
	xx Xx	XTO Contact		ד	XTO Contact Phone # 505-4%6-954	£ 43	0				
Western Division	JAMES	Kunh S	Email F	Email Results to:	ž Ž		D D D			Office Abbreviations	rtions
FEDERAL GAS COM 14 1C	30 - 045 - 39/	Number - 39/44		N .	Test Reason		19-5		4.	Durango = DUR Bakken = BAK	
Collected By	Samps (C	(V) N)		X sta	/ Turnaround		P	XS		Raton = RAT Piceance = PC	
	OA/QC	QA/QC Requested		Z Z	Next Day Two Day		41	378	31 111	Roosevelt = RSV La Barge = LB	
In the beth		<b>)</b>		Std. 5 Bu Date Needed	Three Day Std. 5 Bus. Days (by contract) : Needed	ontract)	5/0	17		Orangeville = OV	
Sample ID Sam	Sample Name	Media		Time	Preservative	No. of Conts.	3,8	08			
FARKH-012716-1015 N. WALL	E. END	5	1-27	10:15	ON ICE	1 400	×	×		3 -	
									/	NAME OF TAXABLE PARTY.	
								+			
									-61 2.		
			10.250								
			70				A.				
						2					
									1		
	VIS.										
Media: Filter = F, Soil = } Wastewater = WW	W Groundwater = GW		nking Wa	Drinking Waster = DW	Sludge = SG	Surface Water = SW	" = SW	Air = A Dri	Drill Mud = DM	A Other = OT	
Relinguisted By: (Signature)		1	16	Time: 2000	Received By: (Signiature	dature)					
Refinquilified By: (Signature)	#	1/83/1	0	18/4 (I	Received By, (Signature)	nature)	dio	Jefre offo			
Relinquished By: (Signature)		Date:	-								



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

James McDaniel XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: Federal GC 1 #1 C OrderNo.: 1602150

### Dear James McDaniel:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/4/2016 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

### **Analytical Report**

### Lab Order 1602150

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: E. Bottom

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 1:40:00 PM

Lab ID: 1602150-001

Matrix: MEOH (SOIL) Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANIC	S				Analys	t: TOM
Diesel Range Organics (DRO)	83	9.9		mg/Kg	1	2/4/2016 1:06:04 PM	23577
Surr: DNOP	83.4	70-130		%Rec	1	2/4/2016 1:06:04 PM	23577
EPA METHOD 8015D: GASOLINE F	RANGE					Analys	t: RAA
Gasoline Range Organics (GRO)	9.3	4.3		mg/Kg	1	2/4/2016 4:48:08 PM	R31945
Surr: BFB	139	66.2-112	S	%Rec	1	2/4/2016 4:48:08 PM	R31945

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 8
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Analytical Report Lab Order 1602150

Date Reported: 2/5/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: N. Middle Wall

Project: Federal GC 1 #1 C

Collection Date: 2/3/2016 1:45:00 PM

Lab ID: 1602150-002

Matrix: MEOH (SOIL) Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analys	t: TOM
Diesel Range Organics (DRO)	39	10	mg/Kg	1	2/4/2016 1:33:32 PM	23577
Surr: DNOP	84.1	70-130	%Rec	1	2/4/2016 1:33:32 PM	23577
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	: RAA
Gasoline Range Organics (GRO)	ND	5.5	mg/Kg	1	2/4/2016 5:58:45 PM	R31945
Surr: BFB	99.4	66.2-112	%Rec	1	2/4/2016 5:58:45 PM	R31945
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	RAA
Benzene	ND	0.055	mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Toluene	ND	0.055	mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Ethylbenzene	ND	0.055	mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Xylenes, Total	ND	0.11	mg/Kg	1	2/4/2016 5:58:45 PM	A31945
Surr: 4-Bromofluorobenzene	117	80-120	%Rec	1	2/4/2016 5:58:45 PM	A31945

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 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### **Analytical Report**

#### Lab Order 1602150

Date Reported: 2/5/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy Client Sample ID: Middle Shelf

Project: Federal GC 1 #1 C Collection Date: 2/3/2016 1:48:00 PM Lab ID: 1602150-003 Matrix: MEOH (SOIL) Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S				Analys	t: TOM
Diesel Range Organics (DRO)	140	9.9		mg/Kg	1	2/4/2016 2:00:44 PM	23577
Surr: DNOP	87.6	70-130		%Rec	1	2/4/2016 2:00:44 PM	23577
EPA METHOD 8015D: GASOLINE RAI	NGE					Analys	t: RAA
Gasoline Range Organics (GRO)	25	22		mg/Kg	5	2/4/2016 6:22:21 PM	R31945
Surr: BFB	117	66.2-112	S	%Rec	5	2/4/2016 6:22:21 PM	R31945
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Toluene	0.11	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Ethylbenzene	ND	0.11		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Xylenes, Total	0.73	0.22		mg/Kg	5	2/4/2016 6:22:21 PM	A31945
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	5	2/4/2016 6:22:21 PM	A31945

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

- 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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 8
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

## Analytical Report

### Lab Order 1602150

Date Reported: 2/5/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: E. Wall

Federal GC 1 #1 C Project:

Collection Date: 2/3/2016 1:50:00 PM

Lab ID:

1602150-004

Matrix: MEOH (SOIL)

Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANIC	s				Analys	t: TOM
Diesel Range Organics (DRO)	20	10		mg/Kg	1	2/4/2016 2:28:05 PM	23577
Surr: DNOP	84.8	70-130		%Rec	1	2/4/2016 2:28:05 PM	23577
EPA METHOD 8015D: GASOLINE R.	ANGE					Analys	t: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/4/2016 6:45:56 PM	R31945
Surr: BFB	95.8	66.2-112		%Rec	1	2/4/2016 6:45:56 PM	R31945
EPA METHOD 8021B: VOLATILES						Analys	t: RAA
Benzene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Toluene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Ethylbenzene	ND	0.047		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Xylenes, Total	ND	0.093		mg/Kg	1	2/4/2016 6:45:56 PM	A31945
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	2/4/2016 6:45:56 PM	A31945

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 8 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

# Analytical Report Lab Order 1602150

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/5/2016

CLIENT: XTO Energy

Client Sample ID: S. East Wall

Project:

Federal GC 1 #1 C

Collection Date: 2/3/2016 2:00:00 PM

Lab ID:

1602150-005

Matrix: MEOH (SOIL) Received Date: 2/4/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S		N. S.		Analys	t: TOM
Diesel Range Organics (DRO)	220	9.8		mg/Kg	1	2/4/2016 2:55:26 PM	23577
Surr: DNOP	90.2	70-130		%Rec	1	2/4/2016 2:55:26 PM	23577
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst	: RAA
Gasoline Range Organics (GRO)	23	4.8		mg/Kg	1	2/4/2016 7:09:26 PM	R31945
Surr: BFB	185	66.2-112	S	%Rec	1 -	2/4/2016 7:09:26 PM	R31945
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	RAA
Benzene	ND	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Toluene	0.11	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Ethylbenzene	0.086	0.048		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Xylenes, Total	0.99	0.096		mg/Kg	1	2/4/2016 7:09:26 PM	A31945
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	1	2/4/2016 7:09:26 PM	A31945

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 8
- 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#:

1602150

05-Feb-16

Client:

XTO Energy

Project:

Federal GC 1#1 C

Sample ID MB-23577	Sampl	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batc	n ID: 23	577	F	RunNo: 3	1916				
Prep Date: 2/4/2016	Analysis D	)ate: 2/	4/2016	5	SeqNo: 9	76476	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.0		10.00		90.3	70	130			
Sample ID LCS-23577	Sampl	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	Organica	-
Sample ID LC3-23577	- Cump					A metriou	OUTSIMIL. DI	coci italig	eorganics	
		n ID: 23			RunNo: 3		OUTOWND. DI	oser rang	e Organics	
		n ID: 23	577	F		1916	Units: mg/K		e Organics	
Client ID: LCSS Prep Date: 2/4/2016	Batcl	n ID: 23	577 4/2016	F	RunNo: 3	1916			RPDLimit	Qual
Client ID: LCSS	Batci Analysis E	n ID: 23 Date: 2/	577 4/2016	F	RunNo: 3 SeqNo: 9	1916 76477	Units: mg/k	(g		Qual

#### Qualifiers:

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

Page 6 of 8

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1602150

05-Feb-16

Client:

XTO Energy

Project:

Federal GC 1 #1 C

Sample ID 2.5UG GRO LCS Client ID: LCSS		ype: LC			tCode: E RunNo: 3		8015D: Gaso	oline Rang	е	
Prep Date:	Analysis D	)ate: 2/	4/2016	8	SeqNo: 9	77134	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.8	79.6	122			
Surr: BFB	940		1000		94.0	66.2	112			
Sample ID 5ML RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	e	
Client ID: PBS	Batch	ID: R3	1945	F	RunNo: 3	1945		11.4		
Prep Date:	Analysis D	ate: 2/	4/2016	S	SeqNo: 9	77135	Units: mg/F	(g		
Prep Date: Analyte	Analysis D	ate: 2/		SPK Ref Val	SeqNo: 9	77135 LowLimit	Units: mg/h HighLimit	%RPD	RPDLimit	Qual
							,		RPDLimit	Qual

#### Qualifiers:

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

Page 7 of 8

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1602150

05-Feb-16

Client: XTO Energy
Project: Federal GC 1 #1 C

Sample ID 100NG BTEX LC	S Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: A3	1945	F	RunNo: 3	1945				
Prep Date:	Analysis [	Date: 2/	4/2016	5	SeqNo: 9	77138	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120	1.76	76.	A. A.
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID 1602150-001A N	vis Samp	Type: MS	5	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: E. Bottom	Batc	h ID: A3	1945	F	RunNo: 3	1945				
Prep Date:	Analysis [	Date: 2/	4/2016	5	SeqNo: 9	77140	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.96	0.085	0.8518	0	112	69.2	128		THE REAL PROPERTY.	-1-4-61
Benzene	0.86	0.043	0.8518	0	101	71.5	122			
Toluene	0.93	0.043	0.8518	0.02313	107	71.2	123			
Ethylbenzene	0.94	0.043	0.8518	0.02572	107	75.2	130			
Xylenes, Total	3.0	0.085	2.555	0.1278	112	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.8518		129	80	120			S

Sample ID 1602150-001A N	MSD Samp	Type: MS	SD	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: E. Bottom	Batc	h ID: A3	1945	F	RunNo: 3	1945				
Prep Date:	Analysis [	Date: 2/	4/2016	\$	SeqNo: 9	77141	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.043	0.8518	0	93.1	71.5	122	8.18	20	-
Toluene	0.88	0.043	0.8518	0.02313	101	71.2	123	5.84	20	
Ethylbenzene	0.92	0.043	0.8518	0.02572	104	75.2	130	2.31	20	
Xylenes, Total	2.9	0.085	2.555	0.1278	109	72.4	131	3.22	20	
Surr: 4-Bromofluorobenzene	1.1		0.8518		126	80	120	0	0	S

Sample ID 5ML RB	Samp	Type: M	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Bato	h ID: A3	1945	F	RunNo: 3	1945				
Prep Date:	Analysis [	Date: 2/	4/2016	\$	SeqNo: 9	77146	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								The large
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

#### Qualifiers:

value	exceeds	Maximum	Contaminant	Level.
200				

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

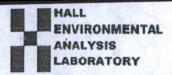
J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 8 of 8



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website www hallenvironmental com

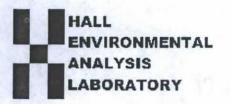
## Sample Log-In Check List

Work Order Number	1602150		RcptNo: 1	
02/04/10				
2/4/2016 8:00:00 AM		sty		
2/4/2016 8:56:36 AM		SAS		
The same of the sa		. 0		
~ 101110				
	Yes 🗌	No 🗆	Not Present ✓	
	Yes 🔽	No 🗌	Not Present	
	Courier			
97	Yes 🔽	No 🗆	NA 🗆	
re of >0° C to 6.0°C	Yes 🗸	No 🗆	NA C	
	Yes 🗹	No 🗆		
(s)?	Yes 🗸	No 🗆		
	Yes 🔽	No 🗌		
	Yes 🗌	No V	NA 🗆	
	Yes 📙	No 🗆	No VOA Vials	
ken?	Yes 🗆	No 🗸		
	Yes 🗹	No 🗆	bottles checked for pH:	
			(<2 or >12 ur	nless noted)
of Custody?	Yes V	No L	Aujusteur	
			Checked by:	
	.00 @			
this order?	Yes 🗌	No 🗌	NA 🗹	
Date				
Via:	eMail	Phone Fax	In Person	
	2/4/2016 8:00:00 AM 2/4/2016 8:56:36 AM 1/4/2016 8:56 AM 1/4/2016 8:56 AM 1/4/2016 8:56 AM 1/4/2016 8:56 A	2/4/2016 8:56:36 AM  Yes Yes Yes Courier  Yes	2/4/2016 8:00:00 AM  2/4/2016 8:56:36 AM  Yes	2/4/2016 8:00:00 AM  2/4/2016 8:56:36 AM  V   V   V   V   V   No   Not Present

7
FRIDAY
Kesuuts
NEED
T DAY
NEXT

	onò	Quote Number				-		Analysis	Analysis	Lab Information
					Page of	1				
つる	F7	XTO Contact			XTO Contact Phone #	# 94	(			
ENERGY			Email	Email Results to:		4543	יניו			Office Abbusedable
Western Division	150	-74	Lure -	OGAN	1 Rex		T'			Farmington = FAR
Well Site/Location	30-04	API Nurriber 045-30144	.4		Test Region		a.			Durango = DUR
Collected By		Samples on Ice		2	Turnaround		0 .	1		Raton = RAT
Company	OA/QC	OA/QC Requested		× Z	Next Day		5/0	20,		Roosevelt = R5V
4116	Grow American I the Duled	for Lab Ites	1	E 8	Three Day Std. 5 Bus. Days (by contract)	contract)	8 H	8 X=		Orangeville = OV
my pareen				Date Needed	papea	N CN	d	377		
Sample ID	Sample Name	Media	Date	Time	Preservative	Conts.	4	<u>U</u>		Sample Number
FARKH-020316-1340	E. Berrow	S	2/3	1:40	00 1CE	1 40Z.	×			100-05/18/01/
FARKH -020316-1345	N. Missue Liber	S	2/3	1:45	11 11	n n	X	×		800-
FARKH-020316-1348	MIDDLE SPELF	S	2/3	1:48	11	11 11	×	×		433
FARM - 020316-1350	E. WALL	8	2/3	1:50	7	N 11	-	×		787
FARKH- 028316-1480	S. EAST WHALE	2	2/3	200	11	tt ti	X	- X		.8
	The second secon		7	,						
		c								
							, .			100
Media: Filter of Soff = 5 Wastew	Mostewater #WW Groundworter = CW		Deinbing Worter a DW	C a delan	Claudro = CC	Conferent Worker at CU3	- Cub	- Viet	70.70	0.1
Sight of the same	1.			Time:	greined By: (Si	gnature)	1			ottles Sample Condition
Watter (Angl		Date: 2-2-1	2	Time	Received By: (Signature)	gnature)		)	Temperature	Other Information
1		Darte:		Time:	Received for Last by	by Manature	Set I	000	Strong Time	1
THE PERSON NAMED IN COLUMN STREET, ASS. DESCRIPTION OF THE PERSON NAMED IN COLUMN STREET, THE PERSON NAMED IN COLUMN STRE	THE REAL PROPERTY AND PERSONS ASSESSED.	And in case of the last of the			10/11	)	(	1		1500

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200



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

OrderNo.: 1601B44

February 02, 2016

James McDaniel XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: Federal G.C. 1 #1C

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/30/2016 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

anded

4901 Hawkins NE

Albuquerque, NM 87109

### Analytical Report Lab Order 1601B44

Date Reported: 2/2/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy Client Sample ID: Middle Wall

 Project:
 Federal G.C. 1 #1C
 Collection Date: 1/29/2016 1:52:00 PM

 Lab ID:
 1601B44-001
 Matrix: MEOH (SOIL)
 Received Date: 1/30/2016 9:15:00 AM

Result	PQL	Qual	Units		DF	Date Analyzed	Batch
SE ORGANIC	S					Analyst	КЈН
59	9.4		mg/Kg		1	2/1/2016 9:57:03 AM	23497
76.0	70-130		%Rec		1	2/1/2016 9:57:03 AM	23497
GE						Analyst	NSB
12	4.2		mg/Kg		1	2/1/2016 10:00:34 AM	A31828
142	66.2-112	S	%Rec		1	2/1/2016 10:00:34 AM	A31828
						Analyst	NSB
ND	0.042		mg/Kg		1	2/1/2016 10:00:34 AM	B31828
0.052	0.042		mg/Kg		1	2/1/2016 10:00:34 AM	B31828
0.042	0.042		mg/Kg		1	2/1/2016 10:00:34 AM	B31828
0.33	0.084		mg/Kg		1	2/1/2016 10:00:34 AM	B31828
127	80-120	S	%Rec	100	1	2/1/2016 10:00:34 AM	B31828
	59 76.0 <b>GE</b> 12 142  ND 0.052 0.042 0.33	SE ORGANICS  59 9.4 76.0 70-130  GE  12 4.2 142 66.2-112  ND 0.042 0.052 0.042 0.042 0.042 0.33 0.084	GE ORGANICS  59 9.4 76.0 70-130  GE  12 4.2 142 66.2-112 S  ND 0.042 0.052 0.042 0.042 0.042 0.042 0.042 0.33 0.084	GE ORGANICS  59 9.4 mg/Kg 76.0 70-130 %Rec  GE  12 4.2 mg/Kg 142 66.2-112 S %Rec  ND 0.042 mg/Kg 0.052 0.042 mg/Kg 0.042 0.042 mg/Kg 0.033 0.084 mg/Kg	GE ORGANICS  59 9.4 mg/Kg 76.0 70-130 %Rec  GE  12 4.2 mg/Kg 142 66.2-112 S %Rec  ND 0.042 mg/Kg 0.052 0.042 mg/Kg 0.042 0.042 mg/Kg 0.33 0.084 mg/Kg	SE ORGANICS  59 9.4 mg/Kg 1 76.0 70-130 %Rec 1  GE  12 4.2 mg/Kg 1 142 66.2-112 S %Rec 1  ND 0.042 mg/Kg 1 0.052 0.042 mg/Kg 1 0.042 0.042 mg/Kg 1 0.042 0.042 mg/Kg 1 0.033 0.084 mg/Kg 1	Analyst  59 9.4 mg/Kg 1 2/1/2016 9:57:03 AM  76.0 70-130 %Rec 1 2/1/2016 9:57:03 AM  GE  Analyst  12 4.2 mg/Kg 1 2/1/2016 10:00:34 AM  142 66.2-112 S %Rec 1 2/1/2016 10:00:34 AM  ND 0.042 mg/Kg 1 2/1/2016 10:00:34 AM  0.052 0.042 mg/Kg 1 2/1/2016 10:00:34 AM  0.042 0.042 mg/Kg 1 2/1/2016 10:00:34 AM  0.033 0.084 mg/Kg 1 2/1/2016 10:00:34 AM

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

#### Value exceeds Maximum Contaminant Level. Qualifiers: 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 Analyte detected below quantitation limits J Page 1 of 6 ND Not Detected at the Reporting Limit P Sample pH Not In Range R RPD outside accepted recovery limits Reporting Detection Limit

Sample container temperature is out of limit as specified

% Recovery outside of range due to dilution or matrix

### Analytical Report Lab Order 1601B44

Date Reported: 2/2/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: Pit Cellar Bottom

Project: Federal G.C. 1 #1C

Collection Date: 1/29/2016 1:45:00 PM

Lab ID: 1601B44-002

Matrix: MEOH (SOIL) Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	S				Analyst	: KJH
Diesel Range Organics (DRO)	110	9.6		mg/Kg	1	2/1/2016 10:18:46 AM	23497
Surr: DNOP	79.3	70-130		%Rec	1	2/1/2016 10:18:46 AM	23497
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	9.9	4.2		mg/Kg	1	2/1/2016 10:25:01 AM	A31828
Surr: BFB	144	66.2-112	S	%Rec	1	2/1/2016 10:25:01 AM	A31828
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Toluene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Ethylbenzene	ND	0.042		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Xylenes, Total	0.097	0.085		mg/Kg	1	2/1/2016 10:25:01 AM	B31828
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	1	2/1/2016 10:25:01 AM	B31828

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

### **Analytical Report** Lab Order 1601B44

Date Reported: 2/2/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: E. Bottom

Project: Federal G.C. 1 #1C Collection Date: 1/29/2016 2:05:00 PM

Lab ID: 1601B44-003 Matrix: MEOH (SOIL) Received Date: 1/30/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL R	ANGE ORGANIC	S				Analyst	КЈН
Diesel Range Organics (DRO)	140	9.8		mg/Kg	1	2/1/2016 10:40:37 AM	23497
Surr: DNOP	75.0	70-130		%Rec	1	2/1/2016 10:40:37 AM	23497
EPA METHOD 8015D: GASOLINE	RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	29	4.2		mg/Kg	1	2/1/2016 10:49:31 AM	A31828
Surr: BFB	256	66.2-112	S	%Rec	1	2/1/2016 10:49:31 AM	A31828
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Toluene	0.058	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Ethylbenzene	0.11	0.042		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Xylenes, Total	0.69	0.085		mg/Kg	1	2/1/2016 10:49:31 AM	B31828
Surr: 4-Bromofluorobenzene	136	80-120	S	%Rec	1	2/1/2016 10:49:31 AM	B31828

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

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

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B44

02-Feb-16

Client: Project. XTO Energy

Federal G C 1#1C

Sample ID	MB-23497 SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	PBS	Batch ID: 23497			RunNo: 31813							
Prep Date:	2/1/2016	Analysis Da	te: 2/	1/2016		SeqNo: 9	973617	Units: mg/l	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
	Organics (DRO)	ND	10		37							
Surr: DNOP		7.6		10.00		76.4	70	130		Plent		
Sample ID	LCS-23497	SampTy	pe: LC	s	Te	stCode: E	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID:	LCSS	Batch	ID: 23	497	1	RunNo: 3	31813					
Prep Date:	2/1/2016	Analysis Da	te: 2/	1/2016		SeqNo: 9	973618	Units: mg/k	Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (	Organics (DRO)	42	10	50.00	0	83.4	65.8	136	100	345	10	
Surr: DNOP	N Company	3.8	101	5.000	De la Carte	76.6	70	130			21.3	
Sample ID	e ID 1601B44-001AMS SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	Middle Wall	Batch ID: 23497			RunNo: 31813							
Prep Date:	2/1/2016	Analysis Date: 2/1/2016			SeqNo: 974086			Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	86	9.6	47.85	59.00	55.7	31.2	162		TA ART		
Surr: DNOP		3.3		4.785	15	68.9	70	130			S	
Sample ID	1601B44-001AMSI	O SampTy	pe: MS	SD	Te	stCode: E	PA Method	8015M/D: Di	esel Range	e Organics	TAK.	
Client ID:	Middle Wall	Batch	D: 23	497		RunNo: 3	31813					
Prep Date:	2/1/2016	Analysis Date: 2/1/2016				SeqNo: 9	74087	Units: mg/Kg				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Nonel Dange C	rganics (DRO)	91	9.8	48.78	59.00	65.8	31.2	162	6.13	31.7	-	

4.878

#### Qualifiers:

Surr: DNOP

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

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

67.6

70

130

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 4 of 6

S

## Hall Environmental Analysis Laboratory, Inc.

35

1400

4.2

21.10

843.9

12.09

109

166

59.3

66.2

143

112

1.38

20

0

S

WO#:

1601B44

02-Feb-16

Client:

XTO Energy

	ample ID 5ML RB SampType: MBLK			BLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS		Batch ID: A31828			RunNo: 31828							
Prep Date:		Analysis D	ate: 2/	1/2016	5	SeqNo: 9	74181	Units: mg/F	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Lowl imit	HighLimit	%RPD	RPDLimit	Qual	
	e Organics (GRO)	ND	5.0		01111101701	701.120			101.0			
Surr: BFB		850		1000		85.5	66.2	112	1.			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	s ·	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	LCSS	Batch ID: A31828			F	RunNo: 3	1828					
Prep Date:		Analysis Date: 2/1/2016			SeqNo: 974182 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range	e Organics (GRO)	23	5.0	25.00	0	90.8	79.6	122	1116			
Surr: BFB		970		1000		97.4	66.2	112	Marie		3.0	
Sample ID	1601B44-001AMS	SampT	ype: MS	3	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е		
Client ID:	Middle Wall	Batch	ID: A3	1828	'F	RunNo: 3	1828					
Prep Date:		Analysis D	ate: 2/	1/2016	5	SeqNo: 9	74183	Units: mg/K	(g			
		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
									+ 1			
Analyte	e Organics (GRO)	36	4.2	21.10	12.09	111	59.3	143				
Analyte	Organics (GRO)	36 1500	4.2	21.10 843.9	12.09	111	59.3	143			S	
Analyte Gasoline Range Surr: BFB	e Organics (GRO)	1500	4.2 ype: <b>M</b> \$	843.9		173	66.2		oline Rang	e	S	
Analyte Gasoline Range Surr: BFB		1500 SampT		843.9 BD	Tes	173	66.2 PA Method	. 112	line Rang	ė	S	
Analyte Gasoline Range Surr: BFB Sample ID	1601B44-001AMS	1500 SampT	ype: MS	843.9 6D 1828	Tes	173 tCode: EF	66.2 PA Method 1828	. 112		ė	S	

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Gasoline Range Organics (GRO)

Surr: BFB

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

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 5 of 6

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B44

02-Feb-16

Client:

XTO Energy

Sample ID 5ML RB	Samp	Type: MI	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Bato	h ID: B3	31828		RunNo: 3	1828				
Prep Date:	Analysis I	Date: 2	/1/2016	:	SeqNo: 9	74187	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								111
Toluene	ND	0.050								
Ethylbenzene	ND	0.050				4				
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120		the state of	
Sample ID 100NG BTEX LCS	Samp	Type: LC	cs	Tes	tCode: E	PA Method	8021B: Vola	tiles		354
Client ID: LCSS	Bato	h ID: B3	31828	F	RunNo: 3	1828				
Prep Date:	Analysis [	Date: 2	/1/2016		SeqNo: 9	74188	Units: mg/F	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua
Benzene	0.93	0.050	1.000	0	93.3	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120		Call of the	247
Sample ID 1601B44-002AMS	Samp <sup>*</sup>	Гуре: М	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		W
Client ID: Pit Cellar Bottom	Batc	h ID: B3	1828	F	RunNo: 3	1828				
Prep Date:	Analysis [	Date: 2/	/1/2016		SeqNo: 9		Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.042	0.8489	0	92.0	71.5	122	17 4	m 1 - 18	MATERIA
Toluene	0.87	0.042	0.8489	0.01520	100	71.2	123			4
Ethylbenzene	0.94	0.042	0.8489	0.03599	107	75.2	130			
(ylenes, Total	2.9	0.085	2.547	0.09728	110	72.4	131			
Surr: 4-Bromofluorobenzene	1.1	1 7	0.8489		128	80	120			S
Sample ID 1601B44-002AMS	D Samp1	Type: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles	Art a right	
Client ID: Pit Cellar Bottom	Poto	h ID: B3	4000		RunNo: 3					

#### Qualifiers:

Analyte

Benzene

Toluene

Ethylbenzene

Kylenes, Total

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

Surr: 4-Bromofluorobenzene

H Holding times for preparation or analysis exceeded

Result

0.77

0.84

0.91

2.7

1.0

PQL

0.042

0.042

0.042

0.085

SPK value

0.8489

0.8489

0.8489

2.547

0.8489

SPK Ref Val

0.01520

0.03599

0.09728

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank

LowLimit

71.5

71.2

75.2

72.4

80

HighLimit

122

123

130

120

131

E Value above quantitation range

%REC

90.2

97.6

103

104

122

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

Page 6 of 6

%RPD

1.93

2.50

3.79

5.28

0

**RPDLimit** 

20

20

20

0

Qual

S



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: XTO Energy Work Order Number: 1601B44 RcptNo: 1 Received by/date: Logged By: Lindsay Mangin 1/30/2016 9:15:00 AM Completed By Lindsay Mangin 1/30/2016 9:45:20 AM Reviewed By: Chain of Custody Not Present 1 Custody seals intact on sample bottles? No [ Yes 🖈 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 🗌 4. Was an attempt made to cool the samples? Yes 🖈 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 NA [ Yes No [ Sample(s) in proper container(s)? YAS No 7. Sufficient sample volume for indicated test(s)? Yes 8. Are samples (except VOA and ONG) properly preserved? NA 9. Was preservative added to bottles? No Yes 10.VOA vials have zero headspace? No 🗌 No VOA Vials No 🛷 11. Were any sample containers received broken? Yes # of preserved bottles checked No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 13. Are matrices correctly identified on Chain of Custody? Yes No 🗌 14. Is it clear what analyses were requested? No · Checked by: 15. Were all holding times able to be met? Yes (If no, notify customer for authorization.) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? NA 🖝 Yes No 🗌 Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact | Seal No Seal Date Signed By Good Yes

	tono	Quote Number						Anc	Analysis	Lab Inf	Lab Information
					Page 1 of 1		1				
2	KURT HORKSTRA	XTO Contact   +OEX ST	P.A	(5)	505) 4/8 6- 95-41	27-5 b	RO				
Western Division	JAMES,	S, Kar	mail T	Results	South to: DEX		90			Office Ab	Office Abbreviations
FEDERAL G. C. 134	36.	API Number 045-3014	hhis	V	SP# LL		12			Durango = DUR	DUR
Vex FACAS WORTH		(A) N)		Ste	Turnaround		12)	00		Raton = RAT	
XTO ENERGY	QA/QC	QA/QC Requested	_	* 12	Next Day SAME Day	Day		2		Roosevelt = RSV	RSV
Signature		× × × × × × × × × × × × × × × × × × ×		Three Date Needed	Three Day Std. 5 Bus. Days (by contract) Needed	ontract)	) HC	V		Orangeville = OV	00 =
Sample ID	Sample Name	Media	Date	Time	Dreservative	No. of	17	C			
-91-6210							16				
751-916210-	MADOLE WALL	4	3/162/1	73:	ON THE	1-402	X	,			
THE 16-145 PA	P		1/29/10	사.	ON THE	7041	X	1			
-015-116-002	- Serrem	7	3/160/1	50:2	ON THE	704	×		N. S.		
Media: Filter = F Soil = 5 Wastewater = WW	. Wy Groundwater = GW		Drinking W	ng Waster = DW	Sludge = SG	Surface Water = SW		Air=A D	Drill Mud = DM	Other = OT	
Relinquished By: (Signature)	X	Date:   -29-1	e	Time:	Times Received By: (Signoture)	noture)					
Relinquished By: (Signature)		Date:		Time:	Received By: (Sign	gnature)	2011	ZO 110 POINT			
Relinquished By: (Signature)		Dake:	MI-		Received for table				A A		
Comments					7						
PASSES OF THE PA											

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200



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

Kurt Hoekstra XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: Federal Gas Com 1 # 1C OrderNo.: 1601B41

#### Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 1 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

andy

4901 Hawkins NE

Albuquerque, NM 87109

#### Analytical Report Lab Order 1601B41

Date Reported: 2/5/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy Client Sample ID: Farkh-012716-1015 N. Wall End

 Project:
 Federal Gas Com 1 # 1C
 Collection Date: 1/27/2016 10:15:00 AM

 Lab ID:
 1601B41-001
 Matrix: SOIL
 Received Date: 1/29/2016 8:10:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	2/4/2016 11:12:57 AM	23511
Surr: DNOP	89.2	70-130	%Rec	1	2/4/2016 11:12:57 AM	23511
EPA METHOD 8015D: GASOLINE RAN	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: BFB	90.4	66.2-112	%Rec	1	2/3/2016 12:13:09 AM	23504
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.048	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Toluene	ND	0.048	mg/Kg	1.	2/3/2016 12:13:09 AM	23504
Ethylbenzene	ND	0.048	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Xylenes, Total	ND	0.097	mg/Kg	1	2/3/2016 12:13:09 AM	23504
Surr: 4-Bromofluorobenzene	108	80-120	%Rec	1	2/3/2016 12:13:09 AM	23504

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 4
- 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#:

1601B41

05-Feb-16

Client:

XTO Energy

Sample ID MB-23551	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 23551	RunNo: 31874
Prep Date: 2/3/2016	Analysis Date: 2/3/2016	SeqNo: 975374 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	9.8 10.00	98.0 70 130
Sample ID LCS-23551	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 23551	RunNo: 31874
Prep Date: 2/3/2016	Analysis Date: 2/3/2016	SeqNo: 975375 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qua
Surr: DNOP	4.8 5.000	95.3 70 130
Sample ID MB-23511	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 23511	RunNo: 31874
Prep Date: 2/1/2016	Analysis Date: 2/3/2016	SeqNo: 975961 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Allalyte		
Diesel Range Organics (DRO)	ND 10	
	ND 10 10 10.00	104 70 130
Diesel Range Organics (DRO) Surr: DNOP		104 70 130  TestCode: EPA Method 8015M/D: Diesel Range Organics
Diesel Range Organics (DRO) Surr: DNOP Sample ID LCS-23511	10 10.00	
Diesel Range Organics (DRO) Surr: DNOP  Sample ID LCS-23511 Client ID: LCSS	10 10.00 SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Diesel Range Organics (DRO) Surr: DNOP  Sample ID LCS-23511 Client ID: LCSS Prep Date: 2/1/2016	10 10.00  SampType: LCS  Batch ID: 23511  Analysis Date: 2/3/2016	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 31874 SeqNo: 975962 Units: mg/Kg
Diesel Range Organics (DRO) Surr: DNOP  Sample ID LCS-23511 Client ID: LCSS	10 10.00  SampType: LCS  Batch ID: 23511  Analysis Date: 2/3/2016	TestCode: EPA Method 8015M/D: Diesel Range Organics RunNo: 31874 SeqNo: 975962 Units: mg/Kg

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % 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 4

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

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1601B41

05-Feb-16

Client:

XTO Energy

Project:

Federal Gas Com 1 # 1C

		the state of the s	V To the state of
Sample ID MB-23504	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Rang	je
Client ID: PBS	Batch ID: 23504	RunNo: 31851	
Prep Date: 2/1/2016	Analysis Date: 2/2/2016	SeqNo: 974988 Units: mg/Kg	
Analyte	Result PQL SPK value SPI	K Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Gasoline Range Organics (GRO)	ND 5.0	The state of the s	William Name
Surr: BFB	930 1000	93.2 66.2 112	
Sample ID LCS-23504	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Rang	je
Client ID: LCSS	Batch ID: 23504	RunNo: 31851	
Prep Date: 2/1/2016	Analysis Date: 2/2/2016	SeqNo: 974989 Units: mg/Kg	
Analyte	Result PQL SPK value SPI	K Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
asoline Range Organics (GRO)	25 5.0 25.00	0 101 79.6 122	
Surr: BFB	980 1000	98.0 66.2 112	
Sample ID MB-23523	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Rang	je
Client ID: PBS	Batch ID: 23523	RunNo: 31884	
Prep Date: 2/2/2016	Analysis Date: 2/3/2016	SeqNo: 975769 Units: %Rec	
Analyte	Result PQL SPK value SPF	K Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Surr: BFB	890 1000	89.4 66.2 112	
Sample ID LCS-23523	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Rang	je .
Client ID: LCSS	Batch ID: 23523	RunNo: 31884	
Prep Date: 2/2/2016	Analysis Date: 2/3/2016	SeqNo: 975770 Units: %Rec	
Analyte	Result PQL SPK value SPF	K Ref Val %REC LowLimit HighLimit %RPD	RPDLimit Qual
Surr: BFB	990 1000	99.5 66.2 112	

#### Qualifiers:

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

Page 3 of 4

## Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

WO#:

1601B41

05-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 # 1C

Sample ID MB-23504	Sampl	Гуре: М	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 23	504	F	RunNo: 3	1851				
Prep Date: 2/1/2016	Analysis [	Date: 2	/2/2016		SeqNo: 9	75028	Units: mg/l	Kg		
Analyte	Result	PQL	SPK.value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050	W							
Toluene	ND	0.050								
Ethylbenzene	ND	0.050					A STREET			
Kylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			
Sample ID LCS-23504	Samp1	Type: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles	PER STATE	
Client ID: LCSS	Batc	h ID: 23	504	F	RunNo: 3	1851				
Prep Date: 2/1/2016	Analysis D				SeqNo: 9		Units: mg/l	Ka		
riep Date. 2/1/2010	Allalysis	Jate. 21	2/2010	,	eqivo. 3	75025	Onits. High	\g	. 60	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120		1	
(ylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.2	V.	1.000		117	80	120		All read	
Sample ID MB-23523	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batch	h ID: 23	523	F	RunNo: 3	1884				
Prep Date: 2/2/2016	Analysis D	Date: 2/	3/2016		SeqNo: 9	75781	Units: %Re	С	4	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
, montro										

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual	ate: 2/2/2016 Analysis Date: 2/3/2016 SeqNo: 975782 Units: %Rec
-------------------------------------------------------------------------------------	-----------------------------------------------------------------

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Sample ID LCS-23523

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

TestCode: EPA Method 8021B: Volatiles

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 4



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

Work Order Number: 1601B41 RcptNo: 1 Client Name: XTO Energy Received by/date: Logged By: Lindsay Mangin 1/29/2016 8:10:00 AM Completed By: Lindsay Mangin 1/29/2016 2:59:54 PM Reviewed By: Chain of Custody No 🗌 Not Present V Yes 1. Custody seals intact on sample bottles? No 🗌 2. Is Chain of Custody complete? Yes V Not Present 3 How was the sample delivered? Courier Log In Yes V No 🗌 NA 🗌 4. Was an attempt made to cool the samples? NA 🗌 No 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No 🗌 Sample(s) in proper container(s)? Yes V Yes V No | 7. Sufficient sample volume for indicated test(s)? No V 8. Are samples (except VOA and ONG) properly preserved? Yes NA 🗌 No V Yes 9. Was preservative added to bottles? No 🗌 No VOA Vials 10. VOA vials have zero headspace? Yes No V 11. Were any sample containers received broken? # of preserved bottles checked Yes V No 🗌 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 Yes V 13. Are matrices correctly identified on Chain of Custody? No 🗌 Yes V 14. Is it clear what analyses were requested? Yes 🗸 No 🗌 Checked by: 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) NA V 16. Was client notified of all discrepancies with this order? Yes No 🗌 Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Condition Seal Intact | Seal No Cooler No Temp °C Seal Date Signed By Good

ice Abbrevi mgton = FA igo = DUR nec = PC velt = RSV rge = LB geville = OV geville = OV mip E NU mip E NU mip E NU rge = LB geville = OV seville = OV	TERGY ern Division Site/Location Site/Location Code Code 1 = 1C 30 Comment	- CTO CTO							
E.N.E.R.G.Y   Email Results ten   Performance   Performa	Ste/Location Site/Location Site/Location Site/Location Site/Location Site/Location Site/Location Site/Location Site/Location Site/Location	Zi-t-mener		XTO Contact Phone		0			
Sample   District   Sample   Date   Date   Time   Region   Date	Site/Location 1 1 1 30 ollected By	Kuny	nail Results	to to		D DE			Office Abbreviations Farmington = FAR
Compony  Com	Sommen	API 045				19-9	Ŧ		Durango = DUR Bakken = BAK
Sample ID   Sample Name   Media   Date   Needed   Day   Date   Needed   Date   Needed   Date   Needed   Date   D		Samples on Ice (V) N) QA/QC Requested	.11	/ Turnaround landard lext Day		The state of	Val		Raton = RAT Piceance = PC Roosevelt = RSV
Sample ID Sample Name Media Date Time Preservative Conts.  224-012716-1615 N. MALL. E. E.L.D. S 1-27 P. 1/5 on 10E 1 for X X X 160 EE 1 for X X X X X 160 EE 1 for X X X X X X X X X X X X X X X X X X X	fleth	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Date	wo Day hree Day 1. 5 Bus. Days (by c eeded	ontract)		0 17		Orangeville = OV
		Media		Preservative	No. of Conts.		0.0		
	N. WALL	2			1 407				
Filter = F Soly= 5 Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT									
Filter = F. Soll = 5 Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT   Time:   Received By: (Signature)   Date:   Date:   Time:   Received By: (Signature)   O 24/16 0 8/10   Time:   Received By: (Signature)   O 24/16 0 8/10   Time:   Received By: (Signature)   O 24/16 0 8/10   Time:									
Filter = F Solf=   Wastewater = WW Groundwater = CW Drinking Waster = DW Sludge = SG Surface Water = SW Air=A Drill Mud = DM Other = OT   Time:   Received By: (Significators)   Rumber of Bottlee   Salma = Co   Mumber of Bottlee   Salma = Co   Management   Salma = Co			. · · · · · · · · · · · · · · · · · · ·						
iga Filter = F Soly= 5 Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT    Color   Color						1	1		
ig : Filter = F Soly= 5 Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT    Time: Received By: (Signature)									
Filter = F soly= \$ Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT   Time: Received By: (Signature)   Mustiper of Bottle: Sample Co   Mustiper of Bottle: Signature   Of 24/16 09/10   Self of Mustiper Of Sample Co   Self of Mustiper Of Sample Co   Self of Sample Co									
iga: Filter = F Soil= \$ Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT    Date:   Time: Received By: (Signature)			2						
nguished By: (Signature)  Date:  -27-10 Time: Received By: (Signature)   Mumber of Bottles Some formal form	= F Soily= \$ Wastewater = WW		ng Waster =	Sludge = SG	Irface Wate		-	Mud = DM	Othe
nquished By: (Signature)  Date: Time: Received By: (Signature) 0/29/10 semperature 10 oth oth other or	har they	17	9		dature				
nquished By: (Signature) Date: ( Time: Received for Tabiby: Ordriff) Date:	Med By: (Signat	15		-	nature)	192/10	16 08/0		e.
		Date:	Time:						

Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200



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

February 09, 2016

Rex Farnsworth XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: Federal GC 1 #1C OrderNo.: 1602226

#### Dear Rex Farnsworth:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/6/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <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

#### Analytical Report Lab Order 1602226

Date Reported: 2/9/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: NW Wall

 Project:
 Federal GC 1 #1C
 Collection Date: 2/5/2016 2:24:00 PM

 Lab ID:
 1602226-001
 Matrix: SOIL
 Received Date: 2/6/2016 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	S				Analyst:	том
Diesel Range Organics (DRO)	210	9.7		mg/Kg	1	2/8/2016 10:36:58 AM	23605
Surr: DNOP	104	70-130		%Rec	1	2/8/2016 10:36:58 AM	23605
EPA METHOD 8015D: GASOLINE RA	NGE					. Analyst:	RAA
Gasoline Range Organics (GRO)	13	4.0		mg/Kg	1	2/8/2016 1:28:32 PM	R31989
Surr: BFB	162	66.2-112	S	%Rec	1	2/8/2016 1:28:32 PM	R31989
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst:	RAA
Benzene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Toluene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Ethylbenzene	ND	0.040		mg/Kg	1	2/8/2016 1:28:32 PM	A31989
Xylenes, Total	0.30	0.080		mg/Kg	1	2/8/2016 1.28:32 PM	A31989
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	1	2/8/2016 1:28:32 PM	A31989

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

## Analytical Report

#### Lab Order 1602226

Date Reported: 2/9/2016

2/8/2016 1:52:25 PM

2/8/2016 1:52:25 PM

A31989

A31989

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Lab ID:

Xylenes, Total

Surr: 4-Bromofluorobenzene

Client Sample ID: W Wall

Project: Federal GC 1 #1C

1602226-002

Collection Date: 2/5/2016 2:27:00 PM Received Date: 2/6/2016 9:15:00 AM

Analyses Result PQL Qual Units DF Date Analyzed Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) 150 10 mg/Kg 2/8/2016 10:58:29 AM 23605 1 Surr: DNOP 102 %Rec 23605 70-130 1 2/8/2016 10:58:29 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA 2/8/2016 1:52:25 PM Gasoline Range Organics (GRO) 13 5.0 mg/Kg 1 R31989 Surr: BFB 149 66.2-112 %Rec 1 2/8/2016 1:52:25 PM R31989 **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene 2/8/2016 1:52:25 PM ND 0.050 mg/Kg A31989 1 Toluene ND 0.050 mg/Kg 1 2/8/2016 1:52:25 PM A31989 Ethylbenzene ND 0.050 mg/Kg 1 2/8/2016 1:52:25 PM A31989

0.099

80-120

mg/Kg

%Rec

Matrix: SOIL

0.17

118

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 5
- 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.

5.2

4.936

WO#:

1602226

09-Feb-16

Client:	XTO Energy
Project:	Federal GC 1 #1C

Sample ID	MB-23605	SampT	ype: M	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch	n ID: 23	605	1	RunNo: 3	1978				
Prep Date:	2/8/2016	Analysis D	ate: 2	/8/2016		SeqNo: 9	77869	Units: mg/l	⟨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)	ND	10								
Surr: DNOP		9.0		10.00		90.0	70	130	A		
Sample ID	LCS-23605	SampT	ype: L0	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	1D: 23	605	F	RunNo: 3	1978		ě.		
Prep Date:	2/8/2016	Analysis D	ate: 2	/8/2016		SeqNo: 9	77870	Units: mg/l	<b>K</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	46	10	50.00	0	91.9	65.8	136			
Surr: DNOP		4.3		5.000	X 40 40	85.7	70	130			
Sample ID	1602226-001AMS	SampT	ype: M	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	NW Wall	Batch	1D: 23	605	F	RunNo: 3	1978				
Prep Date:	2/8/2016	Analysis D	ate: 2	/8/2016		SeqNo: 9	77950	Units: mg/h	⟨g		
Analyte	Ban College	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	240	9.8	48.78	205.5	78.3	31.2	162			Mail
Surr: DNOP		5.1	k.	4.878		104	70	130	-	1000	
Sample ID	1602226-001AMS	O SampT	ype: M	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	NW Wall	Batch	ID: 23	605	F	RunNo: 3	1978				
Prep Date:	2/8/2016	Analysis D	ate: 2	8/2016		SeqNo: 9	77951	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
liesel Range O	organics (DRO)	260	9.9	49.36	205.5	112	31.2	162	6.87	31.7	4 4 7

#### ualifiers:

Surr: DNOP

- 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

105

70

130

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

Se the se of a

Page 3 of 5

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1602226

09-Feb-16

Client: XTO Energy
Project: Federal GC 1 #1C

Sample ID 1602226-001A MS TestCode: EPA Method 8015D: Gasoline Range SampType: MS Client ID: NW Wall Batch ID: R31989 RunNo: 31989 Prep Date: SeqNo: 978165 Analysis Date: 2/8/2016 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 35 4.0 20.10 13.03 59.3 143 111 Surr: BFB 1500 803.9 181 66.2 112 S

Sample ID 1602226-001A MSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Client ID: **NW Wall** Batch ID: R31989 RunNo: 31989 Prep Date: Analysis Date: 2/8/2016 SeqNo: 978166 Units: mg/Kg Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Gasoline Range Organics (GRO) 33 4.0 20.10 13.03 99.4 59.3 20 143 6.78 Surr: BFB 1400 803.9 66.2 S 172 112 0 0

Sample ID 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range LCSS Client ID: Batch ID: R31989 RunNo: 31989 Prep Date: Analysis Date: 2/8/2016 SegNo: 978169 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 23 5.0 25.00 0 92.7 79.6 122 Surr: BFB 990 1000 66.2 112

Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PRS Batch ID: R31989 RunNo: 31989 Prep Date: Analysis Date: 2/8/2016 SeqNo: 978170 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC **RPDLimit** LowLimit HighLimit %RPD Qual ND Gasoline Range Organics (GRO) 5.0 Surr: BFB 920 1000 92.2 66.2 112

#### Qualifiers:

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

Page 4 of 5

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1602226

09-Feb-16

Client:

XTO Energy

Project: Federal GC 1 #1C

Sample ID 100NG BTEX LCS	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	ID: A3	1989	F	RunNo: 3	1989				
Prep Date:	Analysis D	ate: 2/	8/2016	S	SeqNo: 9	78176	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.0	80	120		345	
Toluene	0.99	0.050	1.000	0	99.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80	120			
(ylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120		W. die	
Sample ID 1602226-002A MS	SampT	ype: MS	3	Tes	tCode: EF	PA Method	8021B: Volat	tiles	To Barrier	401
Client ID: W Wall	Batch	ID: A3	1989	R	RunNo: 3	1989				
Prep Date:	Analysis D	ate: 2/	8/2016	S	SeqNo: 9	78181	Units: mg/K	(q		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Trop Batter	7 maryoro t	JUI. 21	0/20/0		, oq. 10. 0	,0101	Ointo. Iligit	.9			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.86	0.050	0.9940	0	86.2	71.5	122		THE SECTION		
Toluene	1.0	0.050	0.9940	0.02094	98.5	71.2	123				
Ethylbenzene	1,1	0.050	0.9940	0.02910	103	. 75.2	130				
Xylenes, Total	3.4	0.099	2.982	0.2182	107	72.4	131				
Surr. 4-Bromofluorobenzene	1.3		0.9940		132	80	120			S	

Sample ID 1602226-002A M	MSD Samp	ype: MS	SD	Tes						
Client ID: W Wall	Batc	n ID: A3	1989	F	RunNo: 3	1989				
Prep Date:	Analysis [	)ate: 2/	8/2016		SeqNo: 9	78182	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	0.9940	0	101	71.5	122	16.1	20	
Toluene	1.1	0.050	0.9940	0.02094	107	71.2	123	7.93	20	
Ethylbenzene	1.1	0.050	0.9940	0.02910	106	75.2	130	2.79	20	
Xylenes, Total	3.4	0.099	2.982	0.2182	107	72.4	131	0.573	20	
Surr: 4-Bromofluorobenzene	1.3		0.9940		132	80	120	0	0	S

Sample ID 5ML RB	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: A3	1989	F	RunNo: 3	1989				
Prep Date:	Analysis [	Date: 2/	8/2016	5	SeqNo: 9	78183	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Benzene	ND	0.050							1 3 A	
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
<ylenes, p="" total<=""></ylenes,>	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

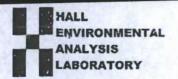
J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 5



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

RcptNo: 1 Client Name: XTO Energy Work Order Number: 1602226 02/06/16 Received by/date: ann Am Logged By: Anne Thorne 2/6/2016 9:15:00 AM an Ilm 2/8/2016 Completed By: Anne Thorn Reviewed By: Chain of Custody Not Present Yes No 🗌 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 NA [ No L 4. Was an attempt made to cool the samples? Yes V No [ NA 🗌 Yes V 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 Yes V Sample(s) in proper container(s)? No V 7. Sufficient sample volume for indicated test(s)? Yes ~ No L 8. Are samples (except VOA and ONG) properly preserved? Yes No V NA 9. Was preservative added to bottles? Yes No 🗌 No VOA Vials 10. VOA vials have zero headspace? No V 11. Were any sample containers received broken? # of preserved bottles checked Yes V No L for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 V 13. Are matrices correctly identified on Chain of Custody? Yes V No 14. Is it clear what analyses were requested? Yes Checked by: No [ V 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes [ No [ NA V 16. Was client notified of all discrepancies with this order? Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition | Seal Intact | Seal No | Seal Date Signed By Good

Office Abbreviations Lab Information Formington = FAR Orangeville = OV Durango = DUR Roosevelt = RSV Bakken = BAK La Barge = LB Piceance = PC Raton = RAT Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT Analysis/Container ODE Time: 2 Received By (Signature) 707 402 XTO Contact Phone # 2057 787-0643 No. of Conts. Saturday Delivery (Y / N) Standard Next-Day SAMR Turnaround Preservative ON LE ONTEN 6 JAMES, KUET, LOGAS, PCK Three Day Page Same Day Two Day Date Needed Email Results to: 12:2 91/5/2 42:2 91/s/z Time Time: Date 2.5-16 REX HARASCHORTH API Number Samples on Ice Ouote Number Media Test Reason Dot & SPELL Doke: N. W. WALL Sample Name W. WALL 30 Media: Filter = F Soil = 5 Wastewater = WW. FENERAL GL 1416 Amp / A Company ENDER SIV PEX HARNS JO 1974 Western Division HZZ-915020-1714 74/205-0205/6-227 ENERGY inquished By: (Signature) Coquished By: (Signature) elinquished By: (Signature) Sample ID XTO Comments Signature

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200



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

OrderNo.: 1602474

February 12, 2016

James McDaniel XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

TEL: (505) 787-0519 FAX (505) 333-3280

RE: Federal Gas Com 1 #1C

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/11/2016 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

### **Analytical Report** Lab Order 1602474

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/12/2016

CLIENT: XTO Energy

Client Sample ID: SE WALL

Project: Federal Gas Com 1 #1C

Collection Date: 2/10/2016 12:28:00 PM

Lab ID: 1602474-001

Matrix: SOIL

Received Date: 2/11/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S				Analyst	том
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/11/2016 10:20:47 AM	23678
Surr: DNOP	88.1	70-130		%Rec	1	2/11/2016 10:20:47 AM	23678
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.9		mg/Kg	1	2/11/2016 9:42:22 AM	A32073
Surr: BFB	99.8	66.2-112		%Rec	1	2/11/2016 9:42:22 AM	A32073
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	NSB
Benzene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Toluene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Ethylbenzene	ND	0.059		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Xylenes, Total	ND	0.12		mg/Kg	1	2/11/2016 9:42:22 AM	B32073
Surr: 4-Bromofluorobenzene	120	80-120	S	%Rec	1	2/11/2016 9:42:22 AM	B32073
					9 3	AND ADDRESS OF THE PARTY OF THE	

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits
- S % 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 4 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Result

49

4.0

PQL

9.7

SPK value

48.54

4.854

SPK Ref Val

5.984

%REC

88.6

82.7

LowLimit

31.2

70

HighLimit

162

130

%RPD

3.92

0

**RPDLimit** 

31.7

0

Qual

WO#:

1602474

12-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 #1C

Sample ID MB-23678	SampType: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch ID: 23	678	F	RunNo: 3	2069				
Prep Date: 2/11/2016	Analysis Date: 2	/11/2016		SeqNo: 9	80364	Units: mg/k	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10							The Same	
Surr: DNOP	9.2	10.00		91.8	70	130		Laboration of the laboration o	1-4-
Sample ID LCS-23678	SampType: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	THE P
Client ID: LCSS	Batch ID: 23	678	F	RunNo: 3	2069				
Prep Date: 2/11/2016	Analysis Date: 2/	/11/2016		SeqNo: 9	80365	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43 10	50.00	0	86.2	65.8	136			
Surr: DNOP	4.1	5.000		82.1	70	130			
Sample ID 1602474-001AMS	SampType: MS	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: SE WALL	Batch ID: 23	678	F	RunNo: 3	2069				
Prep Date: 2/11/2016	Analysis Date: 2/	11/2016	5	SeqNo: 9	80537	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51 9.8	48.88	5.984	92.0	31.2	162			
Surr: DNOP	4.2	4.888		85.8	70	130			
Sample ID 1602474-001AMSI	SampType: MS	SD	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: SE WALL	Batch ID: 23	678	F	RunNo: 3	2069				

#### )ualifiers:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 2 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1602474

12-Feb-16

Client:

XTO Energy

Project:

Federal Gas Com 1 #1C

Sample ID	5ML RB	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8015D: Gase	oline Rang	je	
Client ID:	PBS	Batcl	h ID: A3	32073	F	RunNo: 3	2073				
Prep Date:		Analysis D	Date: 2	/11/2016		SeqNo: 9	80782	Units: mg/k	⟨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr. BFB	Organics (GRO)	ND 940	5.0	1000		93.6	66.2	112			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	je	
Client ID:	LCSS	Batcl	n ID: A3	2073	F	RunNo: 3	2073				
Prep Date:		Analysis D	ate: 2	11/2016	5	SeqNo: 9	80783	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua
	Organics (GRO)	26	5.0	25.00	0	104	79.6	122	10	(6)	
Surr: BFB		1000		1000	Alexadi.	104	66.2	112	1	Makune	1.3
Sample ID	1602474-001AMS	SampT	ype: MS	S	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	je	
Client ID:	SE WALL	Batch	ID: A3	2073	F	RunNo: 3	2073				
Prep Date:		Analysis D	ate: 2	11/2016		SeqNo: 9	80784	Units: mg/h	⟨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua
	Organics (GRO)	32	5.9	29.55	0	109	59.3	143			
Surr. BFB		1300		1182		113	66.2	112	Lama		S
Sample ID	1602474-001AMS	SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	SE WALL	Batch	ID: A3	2073	F	RunNo: 3	2073				
Prep Date:		Analysis D	ate: 2/	11/2016		SeqNo: 9	80785	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (GRO)	33	5.9	29.55	0	110	59.3	143	1.43	20	
Surr. BFB		1300		1182		110	66.2	112	0	0	

#### Qualifiers:

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

Page 3 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1602474

12-Feb-16

Client: XTO Energy

Project: Federal Gas Com 1 #1C

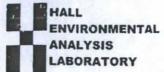
Sample ID 5ML RB	Samp	ype: ME	BLK	Tes	Code: E	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batc	h ID: B3	2073	F	tunNo: 3	2073				
Prep Date:	Analysis [	Date: 2/	11/2016	S	eqNo: 9	80788	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050						7 5 2 3	The state of	
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID 100NG BTEX L	CS Samp	Type: LC	S	Tes	tCode: E	PA Method	80218	B: Vola	tiles		
Client ID: LCSS	Bato	h ID: B3	2073	F	RunNo: 3	2073					
Prep Date:	Analysis [	Date: 2/	11/2016		SeqNo: 9	80789	Units	s: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	High	hLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80		120	W.C.J.W		
Toluene	1.0	0.050	1.000	0	101	80	. 44	120			
Ethylbenzene	1.0	0.050	1.000	. 0	101	. 80		120			
Xylenes, Total	3.0	0.10	3.000	0	101	80		120			
Surr: 4-Bromofluorobenzene	12		1 000		118	80		120			

#### Qualifiers:

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

Page 4 of 4



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: XTO Energy Work Order Number: 1602474 RcptNo: 1 Received by/date: are Him Logged By: 2/11/2016 8:00:00 AM Anne Thorne anne Home Completed By: Anne Thorne 2/11/2016 Reviewed By: Chain of Custody No 🗌 Not Present V 1. Custody seals intact on sample bottles? Yes 🗸 No [ Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 🗌 4. Was an attempt made to cool the samples? Yes 🗸 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗍 Yes 🗸 NA [ Yes 🗸 No 🗌 Sample(s) in proper container(s)? Yes 🗸 No 🗌 7. Sufficient sample volume for indicated test(s)? 8. Are samples (except VOA and ONG) properly preserved? ~ No No V NA 9. Was preservative added to bottles? Yes Yes No No VOA Vials 10. VOA vials have zero headspace? No V 11. Were any sample containers received broken? Yes # of preserved bottles checked for pH: 12. Does paperwork match bottle labels? Yes V No L (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗌 ~ 13. Are matrices correctly identified on Chain of Custody? Yes ~ No 14. Is it clear what analyses were requested? Yes No 🗌 Checked by: 15. Were all holding times able to be met? Yes V (If no, notify customer for authorization.) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No 🗌 NA V Person Notified: Date By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact | Seal No Seal Date Signed By Good

Soil =   Workewafer = WW Groundwater = GW Drinking Water = Date:    E R G Y		ő	Quote Number			Page of		1	Analysis	F	Lab Information.
For BR G Y    Secretary Division   Secretary   Secreta	の上次	×	To Contact		7	XTO Contact Phon	# 4				
Well Sterlucation  Collected By	ENERGY			Email	Results !	10:					
Collected By   Sample Name   South   Sample on led   Sample Name	Western Division	JAm.	~			X	ian			Palo	Mice Abbreviations
Component By Semples on ited Standard Component OA/OC Requested X Heart Boy State DAV (	Federal Gran (2)	30-	N.E.		+	Test Reason	/0			Dur	ango = DUR
Company  Com	Collected By		To No los		Stre	Turnaround	PE			200	on = RAT
Figure   F	Company	OAIG	C Requester	791	11	EN Day SAME I	_			800	sevelt = RSV
Sample   D   Sample   Name   Media   Date   Time   Preservative   Conts.   P   Sample   Sam	13	Gray Area	for Lab Use	10000000	Std. Std.	ree Day . 5 Bus. Days (by c	-			P O	ngeville = OV
= F   Soil =   Workeworker = WW Groundwater = GW Drinking Waster = DW Slidge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT   Color   Color	Sample ID	Sample Name	Media		Time	Preservative	_	372			Cemple Number
ed By: (Signature)  Date:  Date:  Time: Received By: (Signature)  And Date:  Time: Received By: (Signature)  Time: Received By: (Signature)  Date: Time: Received by: (Signature)  Time: Received By: (Signature)  Date: Time: Received for Lab by: (Signature)  Temperature: Date: Time: Received for Lab by: (Signature)  Date: Time: Received for Lab by: (Signature)	46KH - 621016-1228	S.E WALL	2	2/10	12:28		nature and	×		Vie	105477001
ed By: (Signature)  ed By: (Signature)  ed By: (Signature)  ed By: (Signature)  Date: Time: Received By: (Signature)  Time: Received By: (Signature)  Date: Time: Received By: (Signature)  Time: Received By: (Signature)  Time: Received for Lab by: (Signature)  Date: Time: Time: Received for Lab by: (Signature)  Time:							output Andrews				Z
ed By: (Signature)  E By: (Signa											
ed By: (Signature)  Ed By: (Signature)  Ed By: (Signature)  Ed By: (Signature)  Date:  Time:  Received for Lab by: (Signature)  Date:  Time:  Date:  Time:								2			
ed By: (Signature)  ed By: (Signature)  ed By: (Signature)  bate:  Time: Received for Lab by: (Signature)  Date: Time: Received for Lab by: (Signature)								-			
ed By: (signature)  ed By: (signature)  ed By: (signature)  Date: Time: Received for Lab by: (signature)								i i			
ed By: (Signature)  Date:  Time: Received By: (Signature)  Time: Received for Lab by: (Signature)		You was									
ed By: (Signature)  Date: Time: Received for Lab by: (Signature)  Time: Received for Lab by: (Signature)  Time: Received for Lab by: (Signature)  Date: Time: Received for Lab by: (Signature)  Date: Time: Received for Lab by: (Signature)											
ed By: (Signature)  for Lab by: (Signature)											
ed By: (Signature)  for By: (Signature)  ed By: (Signature)  for By: (Signature)							**************************************				
ed By: (Signature)  formula Date:  Inner Received By: (Signature)  Time: Received By: (Signature)  Time: Received for Lab by: (Signature)  Time: Received for Lab by: (Signature)  Date: Time: Time: Received for Lab by: (Signature)  Date: Time: Time: Received for Lab by: (Signature)											
ed By: (Signature)	-	1		mking W	aster = D	Sludge = 5G	irface Water = 5W		Drill Mod = [	M Other = O	L
ed By: (Signature)  Ed By: (Signature)  Date: Time: Received By: (Signature)  Time: Received for Lab by: (Signature)  Date: Time: Time: Received for Lab by: (Signature)  Date: Time: Time: Received for Lab by: (Signature)	Relinguished By (Gignature)		Date:	1	Times	geived By: (\$	nqture)	1	Numbe	er of Bottles	
And Collection Date: Necessary Signature)  For Date: Time, Received for Lab by: (Signature)  Date: Time, Received for Lab by: (Signature)			2-10-	R	-	JULY WOR	eldn.				
ed by: (Agnature) Date: Time; Received for Lab by: (Signature) Date:	Most Jas	*X*	7/10/11			Received By (Sign	02/11/10	0800		rature: /. O	Other Information
	diriduisited by: (agnoture)		Date:		1	Received for Lab	by: (Signature)		Date	Тте	

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200



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

February 11, 2016

Kurt Hoekstra XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: FEDERAL GAS COM 1 #1C OrderNo.: 1602363

#### Dear Kurt Hoekstra:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <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

andy

4901 Hawkins NE

Albuquerque, NM 87109

# Analytical Report

#### Lab Order 1602363

Date Reported: 2/11/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: SW Bottom

Project: FEDERAL GAS COM 1 #1C

Collection Date: 2/9/2016 2:12:00 PM

Lab ID:

1602363-001

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANIC	S			a F	Analyst:	КЈН
Diesel Range Organics (DRO)	320	10		mg/Kg	1	2/10/2016 10:27:41 AM	23655
Surr: DNOP	94.8	70-130	1	%Rec	1	2/10/2016 10:27:41 AM	23655
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	7.9	4.3		mg/Kg	1	2/10/2016 10:42:27 AM	A32054
Surr: BFB	133	66.2-112	S	%Rec	1	2/10/2016 10:42:27 AM	A32054
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Toluene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Ethylbenzene	ND	0.043		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Xylenes, Total	ND	0.086		mg/Kg	1	2/10/2016 10:42:27 AM	B32054
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	2/10/2016 10:42:27 AM	B32054
						The state of the s	

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

# **Analytical Report**

# Lab Order 1602363

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 2/11/2016

CLIENT: XTO Energy

Client Sample ID: NW Bottom

Project: FEDERAL GAS COM 1 #1C Collection Date: 2/9/2016 2:20:00 PM

Lab ID:

1602363-002

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Quai	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			7.8	Analyst:	КЈН
Diesel Range Organics (DRO)	18	10		mg/Kg	1	2/10/2016 10:49:25 AM	23655
Surr: DNOP	91.3	70-130		%Rec	1	2/10/2016 10:49:25 AM	23655
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	2/10/2016 11:06:11 AM	A32054
Surr: BFB	118	66.2-112	S	%Rec	1	2/10/2016 11:06:11 AM	A32054
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst:	NSB
Benzene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Toluene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Ethylbenzene	ND	0.043		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Xylenes, Total	ND	0.087		mg/Kg	1	2/10/2016 11:06:11 AM	B32054
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	1	2/10/2016 11:06:11 AM	B32054

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 6 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Analytical Report Lab Order 1602363

Date Reported: 2/11/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: SW Wall

Collection Date: 2/9/2016 2:26:00 PM

Project: Lab ID:

1602363-003

FEDERAL GAS COM 1 #1C

Matrix: SOIL

Received Date: 2/10/2016 7:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S	6			Analyst:	КЈН
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	2/10/2016 11:11:04 AM	23655
Surr: DNOP	94.1	70-130		%Rec	1	2/10/2016 11:11:04 AM	23655
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/10/2016 11:29:53 AM	A32054
Surr: BFB	104	66.2-112		%Rec	1	2/10/2016 11:29:53 AM	A32054
<b>EPA METHOD 8021B: VOLATILES</b>				N. P.		Analyst:	NSB
Benzene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Toluene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Ethylbenzene	ND	0.041		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Xylenes, Total	ND	0.082		mg/Kg	1	2/10/2016 11:29:53 AM	B32054
Surr: 4-Bromofluorobenzene	121	80-120	S	%Rec	1	2/10/2016 11:29:53 AM	B32054

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

- Value exceeds Maximum Contaminant Level.
- 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
- Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 6
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1602363

11-Feb-16

Client: XTO Energy

Project: FEDERAL GAS COM 1 #1C

Sample ID	MB-23655	SampT	ype: M	BLK	Tes	stCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: I	PBS	Batch	ID: 23	655	1	RunNo: 3	2031				
Prep Date:	2/10/2016	Analysis D	ate: 2	10/2016		SeqNo: 9	79589	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	rganics (DRO)	ND	10	940 - 5					-	THE VOTE OF	MADE.
Surr: DNOP	A The Late	9.2		10.00		91.9	70	130	100	Sept 1	11,14
Sample ID	1602363-001AMS	SampT	ype: M	S	Tes	stCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	P.
Client ID: 5	SW Bottom	Batch	ID: 23	655	F	RunNo: 3	2031				
Prep Date:	2/10/2016	Analysis D	ate: 2	10/2016		SeqNo: 9	79966	Units: mg/F	(g		
Analyte		Result	PQL	SPK value.	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range Or	ganics (DRO)	380	9.8	49.07	319.0	125	31.2	162	1 17	Al-Daniel	W. TH
Surr: DNOP		4.5		4.907	9	92.0	, 70	130	TA		Alexander of the second
Sample ID 1	1602363-001AMSE	SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: 5	SW Bottom	Batch	ID: 23	655	F	RunNo: 3	2031				
Prep Date:	2/10/2016	Analysis D	ate: 2	10/2016		SeqNo: 9	79967	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
iesel Range Or	ganics (DRO)	370	9.5	47.48	319.0	101	31.2	162	3.67	31.7	- 4
Surr: DNOP		4.3		4.748		90.8	70	130	0	0	

#### Jualifiers:

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

Page 4 of 6

### Hall Environmental Analysis Laboratory, Inc.

23

990

5.0

25.00

1000

WO#: 1602363

11-Feb-16

Client:

Gasoline Range Organics (GRO)

Surr. BFB

XTO Energy

Project: FEDERAL GAS COM 1 #1C

Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: A32054 RunNo: 32054 Prep Date Analysis Date: 2/10/2016 SeqNo: 980098 Units: mg/Kg Analyte SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Result PQL LowLimit Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 930 1000 93.1 66.2 112 Sample ID 2.5UG GRO LCS TestCode: EPA Method 8015D: Gasoline Range SampType: LCS Client ID: LCSS Batch ID: A32054 RunNo: 32054 Prep Date: Analysis Date: 2/10/2016 SeqNo: 980099 Units: mg/Kg LowLimit %RPD Analyte Result PQL SPK value SPK Ref Val %REC **HighLimit RPDLimit** Qual

0

93.5

98.7

79.6

66.2

122

112

#### ualifiers:

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

11011

Page 5 of 6

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1602363

11-Feb-16

Client: XTO Energy

Project: FEDERAL GAS COM 1 #1C

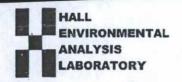
Sample ID 5ML RB	Samp	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles	
Client ID: PBS	Batc	h ID: B3	2054	· F	RunNo: 3	2054			
Prep Date:	Analysis [	Date: 2/	10/2016	5	SeqNo: 9	80109	Units: mg/K		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Benzene	ND	0.050				13.0			
Toluene	ND	0.050				7000			A Later Control
Ethylbenzene	ND	0.050							
Xylenes, Total	ND	0.10							
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120		

Sample ID 100NG BTEX LC	S Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles	12.012	
Client ID: LCSS	Bato	h ID: B3	2054	F	RunNo: 3	2054	S Van			
Prep Date:	Analysis (	Date: 2/	10/2016	S	SeqNo: 9	80110	Units: mg/h	⟨g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120		37	
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		123	80	120			S

#### ualifiers:

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

Page 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

# Sample Log-In Check List

Website: www.hallenvironmental.com

Client Name:	XTO Energy		Work (	Order Number:	16023	863			RcptNo	1
Received by/da	te: A	02	1/0/16							
Logged By:	Anne Thorr	10	2/10/201	6 7:40:00 AM			anne	Am	_	
Completed By:	Anne Thorr	ie	2/10/201	6			an	An		
Reviewed By:	70		2/10/16							
Chain of Cus	stody			g mi °					11/15/20	
1. Custody sea	als intact on sa	mple bottles?			Yes		No		Not Present	
2. Is Chain of	Custody compl	ete?			Yes	<b>V</b>	No		Not Present	
3. How was the	e sample delive	ered?			Cour	ier				
Log In										
4. Was an atte	empt made to o	ool the samp	les?		Yes	<b>V</b>	No		NA 🗆	
5. Were all sai	mples received	at a tempera	ture of >0° C	to 6.0°C	Yes	V	No		NA 🗆	
6. Sample(s) i	in proper contai	ner(s)?			Yes	<b>V</b>	No.			
7. Sufficient sa	ample volume f	or indicated to	est(s)?		Yes	V	No			
8. Are samples	s (except VOA	and ONG) pro	operly preserve	ed?	Yes	V	No			
9. Was presen	vative added to	bottles?			Yes		No	<b>Y</b>	NA 🗆	
10.VOA vials h	ave zero heads	pace?			Yes		No		No VOA Vials 🗹	
11. Were any s	ample containe	rs received b	roken?		Yes		No	<b>V</b>	# of preserved	
12. Does paper (Note discre	work match bot		)		Yes	<b>Y</b>	No		bottles checked for pH;	or >12 unless noted)
13. Are matrices					Yes	<b>V</b>	No		Adjusted?	- Prince Company
14. Is it clear wh	nat analyses we	ere requested	?		Yes	V	No			
15. Were all hol (If no, notify	ding times able customer for a				Yes	<b>V</b>	No		Checked by:	
Special Hand	iling (if app	licable)								
16. Was client n			vith this order?		Yes		No		NA 🗹	
Perso	n Notified:			Date						
By Wh	nom:	****		Via: [	eMa	il [	Phone [	] Fax	In Person	
Regar	ding:		A			ov		e - 147e e		
Client	Instructions:		,4							The Lates
17. Additional r	emarks:				1					
18. Cooler Info	ormation									
Cooler N	lo Temp °C	Condition	Seal Intact	Seal No S	Seal Da	te	Signed	Ву	1	
1	1.0	Good	Yes					-		

	ono.	Quote Number			Page L of	_	-	- Indiana		Lab Information
	xto	XTO Contact		_	XTO Contact Phone #	9543	C		9.5	
Western Division	NAMES A	1 Tamy	Email	Email Results to:	XF.X		dr9-0	W	).	Office Abbreviations Farmington = FAR
Well Site/Location	30.04	E"			Test Reason		DE			Durango = DUR Bakken = BAK
Collected By	Sami	nples on Ice		38	Turnaround			17		Raton = RAT Piceance = PC
Company	0A/00	QA/QC Requested		X I	Newt Day SAMED Two Day	DAC	108	208		Roosevelt = RSV La Barge = LB
Signature				Date	Three Day Std. 5 Bus. Days (by contract) Needed	contract)		XQ.	+-	Orangeville = 0V
	24		TO THE PERSON			No. of	1.1	151		
> CIVI -	Sample Name	Media	2 -	Time	Preservative	Comts.	7			
1470	į -		200	2:30	90 ICE	107 JAK	,	1	-	
2	Ż-	1	11	7:70	ON KE	405-10	+		-	
1.5 -11-012020-14-6-5.1	M. MACL	0	572	97.7	57100	402 Jul	X			
	*-									
			1							
Media: Filtgr = F Soil = 5 Mastewater = WW	r = WW Groundwater = GW		inking V	Drinking Waster = DW	Sludge = SG	Surface Water = SW	r = SW	Air = A Dr	ill Mud = DN	Drill Mud = DM Other = OT
Relinfurshed By (Signature)		Date: 2-9-1	9/-	Time: S:00	Received By: (Ng	By: (Ngnotune)	+	The state of		
Refinquished By: (Signature)		Date:	7.	Time	Received By: (Sign	gnothere)				
Relinquished By: (Signature)		Date:		Time:						

<sup>\*</sup> Sample ID will be the office and sampler-date-military time FARJM-MMDDYY-1200



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

February 15, 2016

James McDaniel XTO Energy 382 County Road 3100 Aztec, NM 87410 TEL: (505) 787-0519

FAX (505) 333-3280

RE: Federal Gas Com 1 #1C OrderNo.: 1602520

#### Dear James McDaniel:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/12/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <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

## **Analytical Report**

Lab Order 1602520

Date Reported: 2/15/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Energy

Client Sample ID: S.W. Bottom

Federal Gas Com 1 #1C Project:

Collection Date: 2/11/2016 8:15:00 AM

Lab ID:

1602520-001

Matrix: MEOH (SOIL)

Received Date: 2/12/2016 8:00:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANIC	S				Analyst	: JME
Diesel Range Organics (DRO)	280	10		mg/Kg	1	2/12/2016 9:06:19 PM	23703
Surr: DNOP	98.0	70-130		%Rec	1	2/12/2016 9:06:19 PM	23703
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	13	4.6		mg/Kg	1	2/12/2016 11:44:54 AM	23685
Surr: BFB	149	66.2-112	S	%Rec	1	2/12/2016 11:44:54 AM	23685

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

- Value exceeds Maximum Contaminant Level.
- 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
- % 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 3 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1602520

15-Feb-16

Client:

XTO Energy

Project:

Federal Gas Com 1 #1C

Sample ID MB-23703 Client ID: PBS Prep Date: 2/12/2016		e: MBLK D: 23703 e: 2/12/20	16	Ru	nNo: 32° qNo: 982	107	8015M/D: Die		e Organics					
Analyte	Result	PQL SPK	value SP	K Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Diesel Range Organics (DRO) Surr: DNOP	ND 8.7	10	10.00		87.3	70	130							
Sample ID LCS-23703	SampTyp	e: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: LCSS	Batch II	D: 23703		Ru	nNo: 321									
Prep Date: 2/12/2016	Analysis Date	e: 2/12/20	16	Se	qNo: 982	135	Units: mg/K	g						
Analyte	Result F	PQL SPK	value SP	K Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
			50.00	0	00.0	05.0	120							
Diesel Range Organics (DRO)	45	10	50.00	0	89.6	65.8	136							

#### Qualifiers:

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

Page 2 of 3

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1602520

15-Feb-16

Client:

XTO Energy

Project:

Federal Gas Com 1 #1C

Sample ID MB-23685 Client ID: PBS	SampType: MBI Batch ID: 236	85	F	RunNo: 3	2099	8015D: Gaso		e	
Prep Date: 2/11/2016	Analysis Date: 2/1	2/2016	S	SeqNo: 98	32038	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	9.4							11.00
Surr: BFB	910	1000		91:1	66.2	112	- 511		
Sample ID LCS-23685	SampType: LCS	3	Tes	tCode: EF	PA Method	8015D: Gaso	line Pana		
Odinpic 15 20000	ourile illes mes					00100. 0030	illie Rally	e	
The state of the s	Batch ID: 236			RunNo: 32		0010D. Oaso	mile rang	e	
Client ID: LCSS	Batch ID: 236	85	F	RunNo: 32	2099		. E . E	e	
		85	F		2099	Units: mg/K	. E . E	e	
Client ID: LCSS	Batch ID: 2366 Analysis Date: 2/1	85 2/2016	F	RunNo: 32	2099		. E . E	RPDLimit	Qual
Client ID: LCSS Prep Date: 2/11/2016	Batch ID: 2366 Analysis Date: 2/1	85 2/2016	F	RunNo: 32 SeqNo: 98	2099 32039	Units: mg/K	g		Qual

#### ualifiers:

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

P Sample pH Not In Range

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

Page 3 of 3



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

Work Order Number: 1602520 RcptNo: 1 Client Name: XTO Energy 02/12/16 Received by/date: 2/12/2016 8:00:00 AM Logged By: Joe Archuleta Completed By: Joe Archuleta 2/12/2016 8:22:16 AM ozlizho Reviewed By: Chain of Custody Yes [ No [] Not Present 1. Custody seals intact on sample bottles? No [ Yes Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In NA [ No [ 4. Was an attempt made to cool the samples? Yes NA ... No L 5. Were all samples received at a temperature of >0° C to 6.0°C No L Sample(s) in proper container(s)? No Li 7. Sufficient sample volume for indicated test(s)? No ! 8. Are samples (except VOA and ONG) properly preserved? Yes NA [] 9. Was preservative added to bottles? Yes No M No VOA Vials No [ 10. VOA vials have zero headspace? No M 11. Were any sample containers received broken? # of preserved bottles checked No [ for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No [] 13. Are matrices correctly identified on Chain of Custody? No L 14. Is it clear what analyses were requested? No [ Checked by: 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes No [] 16. Was client notified of all discrepancies with this order? NA 🖈 Person Notified: Date By Whom: eMail Phone Fax In Person Via: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact | Seal No Seal Date Signed By 1.0

Sample Name Media Date Time Preservative Contact Williams Water = DW Studge = SO Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Day (Surface Water = SW Date to Date Time Date Time Date (Surface Water = SW Date to Date Time Date Time Date (Surface Water = SW Date to Date Time Date Time Date (Surface Water = SW Date Time Date Time Date Time Date Time Date Time Date Time Received for Lab by (Surface Water = SW Date Time Received for Lab by (Surface Water = SW Time Date Time Date Time Received for Lab by (Surface Water = SW Time Date Time Date Time Date Time Date Time Date Time Date Time Received for Lab by (Surface Water = SW Time Date Time Date Time Date Time Date Time Date Time Date Time Received for Lab by (Surface Water = SW Time Date	Lab Information			Office Abbreviations Farmington = FAR	Durango = DUR Babben = BAK	Ruton = RAT	Roosevelt = RSU	Orangeville = OV	1602520	Scample Number	100-								ttles Sample Condition	.C Other Information	
So 5 - 4 % b - 9 4 % of b - 9 4	ontainer																	mua = Dm Otner	Number of Bot	Temperature;	Date: Time:
Sample Name  Sample Spill  Sample Name  Sample = Spill  Sample	Analysis/C			az	g/a	D &	5	108	Но	!				j				AITER	1	2/16 0800	(2)
Sample Name Media Date Time  Samples on Ice  Time  Samples on Ice  Samples on		# 47				1	TAN	7										mace water =	" (Label		by: (Signertu
Sample Name Media Date Time Samples on Ice (R)N)  Sample Name Media Date Time Sample Name Cray Areas for Lab Use Only!  Sample Name Media Date Time Sample Name Date:    Sample Name		TO Contact Phon	1	(7	urday Defivery (	Turnaround		ree Day	me Day eded	Preservative	7 00						200	Magge = 20	Rocking By: (Sign	I great	Received for Lak
Sample Name Media  Samples on Ice  Samples on Ice  Samples on Ice  (V)N)  Test Recason  Sample Name Media  Sul, Botto M.  Sul, Botto Media  Sul, Botto M.  Sul, Botto M.  Sul, Botto Media		200	Results t	1	-	3	14	1	Date No	Time	2:5							aster = Dv	Time:	Time:	Time:
Sample Name  Sample Name  Sample on I  Sample on I  Sample Name  Sample on I  Sampl	To the		Email	Lunch	44	1			a Only!	Date	2/11							inging w	9/	Ho	
Samp Samp	te Number	Contact		-	L	ples on ice	t Reason	1110	for Lab Us	Media	1							- 1	Date: 2-//-	Date: 1	Date
EN ERGY Western Division Well site/Location School Cass Cost Company XYD Compa	ono	XX X					Tes	5	Gray Areas	Sample Name	S W. Battern						- 1	- 1		\d	

\* Sample ID will be the office and sampler-date-military time FARIM-MMDDYY-1200