



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pJK1424834050**

**3RP - 1013**

**Williams Four Corners, LLC**

11/3/2016

**3R-1013**

**Release Report/ General  
Correspondence**

**Williams SJ**

**Date: Jul-Sept 2016**

AUG 15 2016

Form C-141  
Revised August 8, 2011

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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

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 ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Monica Sandoval
Address 188 CR 4900, Bloomfield, NM 87413	Telephone No. 505-632-4625
Facility Name 32-9 CDP	Facility Type Compressor Station
Surface Owner Private Land	Mineral Owner
API No.	

## LOCATION OF RELEASE

Unit Letter L	Section 14	Township 31N	Range 10W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.89597° N Longitude 107.86047° W

## NATURE OF RELEASE

Type of Release Natural Gas	Volume of Release 460 MCF	Volume Recovered 0 MCF
Source of Release Pressure Relief Valve	Date and Hour of Occurrence 8/7/2016 7:00pm	Date and Hour of Discovery 8/7/2016 8:30pm
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? NA	
By Whom? NA	Date and Hour 0	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* Not Applicable		
Describe Cause of Problem and Remedial Action Taken.* Rupture disc assembly broke off the suction scrubber. Broken nipple caused by excessive vibration.		
Describe Area Affected and Cleanup Action Taken.* Broken nipple and rupture disc replaced.		
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 "Final 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.		
Signature: <i>Monica Sandoval</i>	OIL CONSERVATION DIVISION	
Printed Name: Monica Sandoval	Approved by Environmental Specialist <i>[Signature]</i>	
Title: Environmental Specialist	Approval Date: 8/17/2016	Expiration Date:
E-mail Address: monica.sandoval@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/11/2016 Phone: 505-632-4625		

\* Attach Additional Sheets If Necessary

NOF162304229

①



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Form C-141  
Revised August 8, 2011

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**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Michael Hannan	
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. 505-632-4807	
Facility Name La Jara Compressor Station	Facility Type Compressor Station	
Surface Owner Bureau of Land Management	Mineral Owner	API No.

**LOCATION OF RELEASE**

Unit Letter M	Section 1	Township 30N	Range 9W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.81754° N Longitude 107.49144° W

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 103.78 MCF	Volume Recovered 0 MCF
Source of Release Emergency Safety Device (ESD)	Date and Hour of Occurrence 08/08/16, 12:15 PM MST	Date and Hour of Discovery 08/08/16, 12:17 PM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* Not Applicable		
Describe Cause of Problem and Remedial Action Taken.* La Jara station ESD closed, vent valve opened, releasing 103.78 MCF. ESD closed because gas detector went off.		
Describe Area Affected and Cleanup Action Taken.* No clean-up required for natural gas releases vented to atmosphere.		

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 "Final 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.

 Signature:		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Hannan		Approved by Environmental Specialist: 	
Title: Engineer, Sr.		Approval Date: <u>8/22/2016</u> Expiration Date:	
E-mail Address: michael.hannan@williams.com		Conditions of Approval:	
Date: 08/08/16 Phone: 505-632-4807		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

NZF 1624226079

①



District I  
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accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

#### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company <b>Williams Four Corners LLC</b>	Contact <b>Kijun Hong</b>
Address <b>1755 Arroyo Drive, Bloomfield, NM 87413</b>	Telephone No. <b>505-632-4475</b>
Facility Name <b>McClanahan 15E</b>	Facility Type <b>Natural Gas Pipeline</b>

Surface Owner <b>BLM - NMNM40621</b>	Mineral Owner	API No.
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#### LOCATION OF RELEASE

Unit Letter <b>N</b>	Section <b>14</b>	Township <b>28N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.65527** Longitude **-107.86846**

#### NATURE OF RELEASE

Type of Release <b>Natural Gas and Produced Water</b>	Volume of Release <b>15 MCF natural gas; unknown produced water</b>	Volume Recovered <b>0</b>
Source of Release <b>Pipeline</b>	Date and Hour of Occurrence <b>4/20/2016, 10:30 AM MST</b>	Date and Hour of Discovery <b>4/20/2016, 10:30 AM MST</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>Not Applicable</b>	
By Whom?	Date and Hour <b>OIL CONS. DIV DIST. 3</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>Not Applicable</b> <b>AUG 12 2016</b>	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A pinhole leak was discovered along the pipeline by producer and reported to Williams. The leak was immediately blocked in and isolated. The initial volume of liquids released was estimated at 5 gallons. On May 31, 2016, during pipeline repair activities, a second pinhole leak was discovered a few feet from the original leak location. A total of 155 cubic yards of impacted soil was removed during pipeline repair and remediation activities.

Describe Area Affected and Cleanup Action Taken.\*

Excavation was conducted until sandstone bedrock was encountered. An initial confirmation sample was collected from the excavation floor on July 25, 2016. The results exceeded the TPH and BTEX closure standards. Further excavation was conducted and confirmation samples collected on July 27, 2016 from the excavation floor and sidewalls demonstrated concentrations below all closure standards. Laboratory analytical results are attached.

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 "Final 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.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Kijun Hong</b>	Approved by Environmental Specialist: 	
Title: <b>Environmental Specialist</b>	Approval Date: <b>9/16/16</b>	Expiration Date:
E-mail Address: <b>Kijun.Hong@Williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>08/09/2016</b>	Phone: <b>505-632-4475</b>	

\* Attach Additional Sheets If Necessary

#NCS 16420935 695

(21)



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

July 28, 2016

Kijun Hong  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL:  
FAX

RE: McClanahan 15E Line Leak

OrderNo.: 1607C98

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/26/2016 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 [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Analytical Report**

Lab Order 1607C98

Date Reported: 7/28/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** McClanahan # 15 E Bottom Com**Project:** McClanahan 15E Line Leak**Collection Date:** 7/25/2016 2:40:00 PM**Lab ID:** 1607C98-001**Matrix:** MEOH (SOIL)**Received Date:** 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: TOM
Diesel Range Organics (DRO)	300	10		mg/Kg	1	7/26/2016 9:24:14 AM
Surr: DNOP	88.0	70-130		%Rec	1	7/26/2016 9:24:14 AM
<b>EPA METHOD 8015D: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	2100	510		mg/Kg	100	7/26/2016 2:37:22 PM
Surr: BFB	110	80-120		%Rec	100	7/26/2016 2:37:22 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	2.1	0.51		mg/Kg	20	7/26/2016 12:59:19 PM
Toluene	54	1.0		mg/Kg	20	7/26/2016 12:59:19 PM
Ethylbenzene	11	1.0		mg/Kg	20	7/26/2016 12:59:19 PM
Xylenes, Total	160	2.0		mg/Kg	20	7/26/2016 12:59:19 PM
Surr: 4-Bromofluorobenzene	129	80-120	S	%Rec	20	7/26/2016 12:59:19 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: MRA
Chloride	290	30		mg/Kg	20	7/26/2016 11:48:48 AM

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607C98

28-Jul-16

Client: Williams Field Services  
Project: McClanahan 15E Line Leak

Sample ID	MB-26611	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	26611	RunNo:	36016					
Prep Date:	7/26/2016	Analysis Date:	7/26/2016	SeqNo:	1115385	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-26611		SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	26611		RunNo:	36016				
Prep Date:	7/26/2016		Analysis Date:	7/26/2016		SeqNo:	1115387		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	95.7	90	110				

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607C98

28-Jul-16

Client: Williams Field Services  
Project: McClanahan 15E Line Leak

Sample ID	LCS-26602	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	26602	RunNo:	35982					
Prep Date:	7/26/2016	Analysis Date:	7/26/2016	SeqNo:	1114066	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.0	62.6	124			
Surr: DNOP	4.3		5.000		85.3	70	130			

Sample ID	MB-26602	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	26602	RunNo:	35982					
Prep Date:	7/26/2016	Analysis Date:	7/26/2016	SeqNo:	1114067	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.7		10.00		87.5	70	130			

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607C98

28-Jul-16

Client: Williams Field Services  
Project: McClanahan 15E Line Leak

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R35987	RunNo:	35987					
Prep Date:		Analysis Date:	7/26/2016	SeqNo:	1115529	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	102	80	120			
Surr: BFB	960		1000		95.8	80	120			

Sample ID	5ML-RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R35987	RunNo:	35987					
Prep Date:		Analysis Date:	7/26/2016	SeqNo:	1115530	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.6	80	120			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607C98

28-Jul-16

Client: Williams Field Services  
Project: McClanahan 15E Line Leak

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: B35987		RunNo: 35987					
Prep Date:			Analysis Date: 7/26/2016		SeqNo: 1115534		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	75.3	123			
Toluene	1.0	0.050	1.000	0	104	80	124			
Ethylbenzene	0.98	0.050	1.000	0	97.7	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	94.2	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID	5ML-RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B35987	RunNo:	35987					
Prep Date:		Analysis Date:	7/26/2016	SeqNo:	1115537	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.4	80	120			

## Qualifiers:

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

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



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

## Sample Log-In Check List

Client Name: WILLIAMS FIELD SERVI

Work Order Number: 1607C98

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/26/2016 7:50:00 AM

Completed By: Lindsay Mangin

7/26/2016 8:07:57 AM

Reviewed By:

A 07/26/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			



Turn-Around Time: Same day

☐ Standard ☒ Rush 7-26-16

Project Name:

McClanahan <sup>#</sup> 15F Line Leak

Project #:

Project Manager:

[illegible]☐ Level 4 (Full Validation)

NELAP ☒ Other ☐


EDD (Type)

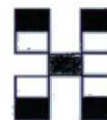
[illegible]

ite:	Time:	Relinquished by:
5/16	1530	Wm. Lillian

Received by:	Date	Time
Christine Walter	7/25/16	1530

ite:	Time:	Relinquished by:
5/16	1852	Christ Waelt

Received by:	Date	Time
	07/26/11	0750



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

X	BTEX + MTBE + TMB's (8021)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (GRO / DRO / MRO)
	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions ( $F^-$ , $Cl^-$ , $NO_3^-$ , $NO_2^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ )
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
X	Chloride
	Air Bubbles (Y or N)

Remarks:

\_\_\_\_\_

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





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

August 04, 2016

Kijun Hong  
Williams Field Services  
1755 Arroyo Dr.,  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: McClanahan 15 E

OrderNo.: 1607E80

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 5 sample(s) on 7/28/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1607E80

Date Reported: 8/4/2016

**CLIENT:** Williams Field Services**Client Sample ID:** McClanahan 15E North Wall**Project:** McClanahan 15 E**Collection Date:** 7/27/2016 9:40:00 AM**Lab ID:** 1607E80-001**Matrix:** SOIL**Received Date:** 7/28/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	64	30		mg/Kg	20	8/2/2016 2:07:56 PM	26746
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	8/2/2016 5:52:09 PM	26694
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/2/2016 5:52:09 PM	26694
Surr: DNOP	104	70-130		%Rec	1	8/2/2016 5:52:09 PM	26694
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/29/2016 9:58:15 PM	26668
Surr: BFB	111	49.4-163		%Rec	1	7/29/2016 9:58:15 PM	26668
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	7/29/2016 9:58:15 PM	26668
Toluene	ND	0.046		mg/Kg	1	7/29/2016 9:58:15 PM	26668
Ethylbenzene	ND	0.046		mg/Kg	1	7/29/2016 9:58:15 PM	26668
Xylenes, Total	0.23	0.091		mg/Kg	1	7/29/2016 9:58:15 PM	26668
Surr: 4-Bromofluorobenzene	85.8	80-120		%Rec	1	7/29/2016 9:58:15 PM	26668

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

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

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1607E80

Date Reported: 8/4/2016

**CLIENT:** Williams Field Services**Client Sample ID:** McClanahan 15E South Wall**Project:** McClanahan 15 E**Collection Date:** 7/27/2016 9:45:00 AM**Lab ID:** 1607E80-002**Matrix:** SOIL**Received Date:** 7/28/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	180	30		mg/Kg	20	8/2/2016 2:45:11 PM	26746
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/2/2016 6:13:59 PM	26694
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/2/2016 6:13:59 PM	26694
Surr: DNOP	111	70-130		%Rec	1	8/2/2016 6:13:59 PM	26694
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	5.9	4.9		mg/Kg	1	7/29/2016 10:21:46 PM	26668
Surr: BFB	103	49.4-163		%Rec	1	7/29/2016 10:21:46 PM	26668
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.024		mg/Kg	1	7/29/2016 10:21:46 PM	26668
Toluene	0.079	0.049		mg/Kg	1	7/29/2016 10:21:46 PM	26668
Ethylbenzene	ND	0.049		mg/Kg	1	7/29/2016 10:21:46 PM	26668
Xylenes, Total	0.36	0.097		mg/Kg	1	7/29/2016 10:21:46 PM	26668
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	7/29/2016 10:21:46 PM	26668

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

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



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1607E80

Date Reported: 8/4/2016

**CLIENT:** Williams Field Services**Client Sample ID:** McClanahan 15E West Wall**Project:** McClanahan 15 E**Collection Date:** 7/27/2016 9:50:00 AM**Lab ID:** 1607E80-003**Matrix:** SOIL**Received Date:** 7/28/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	160	30		mg/Kg	20	8/2/2016 2:57:35 PM	26746
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/2/2016 6:35:42 PM	26694
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/2/2016 6:35:42 PM	26694
Surr: DNOP	113	70-130		%Rec	1	8/2/2016 6:35:42 PM	26694
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	5.2	4.7		mg/Kg	1	7/29/2016 11:32:19 PM	26668
Surr: BFB	114	49.4-163		%Rec	1	7/29/2016 11:32:19 PM	26668
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.023		mg/Kg	1	7/29/2016 11:32:19 PM	26668
Toluene	ND	0.047		mg/Kg	1	7/29/2016 11:32:19 PM	26668
Ethylbenzene	ND	0.047		mg/Kg	1	7/29/2016 11:32:19 PM	26668
Xylenes, Total	0.62	0.093		mg/Kg	1	7/29/2016 11:32:19 PM	26668
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	7/29/2016 11:32:19 PM	26668

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

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

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1607E80

Date Reported: 8/4/2016

**CLIENT:** Williams Field Services**Client Sample ID:** McClanahan 15E East Wall**Project:** McClanahan 15 E**Collection Date:** 7/27/2016 9:55:00 AM**Lab ID:** 1607E80-004**Matrix:** SOIL**Received Date:** 7/28/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	190	30		mg/Kg	20	8/2/2016 3:10:00 PM	26746
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	12	9.7		mg/Kg	1	8/1/2016 2:50:54 PM	26694
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/1/2016 2:50:54 PM	26694
Surr: DNOP	71.6	70-130		%Rec	1	8/1/2016 2:50:54 PM	26694
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/29/2016 11:55:44 PM	26668
Surr: BFB	104	49.4-163		%Rec	1	7/29/2016 11:55:44 PM	26668
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.025		mg/Kg	1	7/29/2016 11:55:44 PM	26668
Toluene	ND	0.049		mg/Kg	1	7/29/2016 11:55:44 PM	26668
Ethylbenzene	ND	0.049		mg/Kg	1	7/29/2016 11:55:44 PM	26668
Xylenes, Total	0.15	0.099		mg/Kg	1	7/29/2016 11:55:44 PM	26668
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	7/29/2016 11:55:44 PM	26668

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

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

## Analytical Report

Lab Order 1607E80

Date Reported: 8/4/2016

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: McClanahan 15E Bottom Comp

Project: McClanahan 15 E

Collection Date: 7/27/2016 10:00:00 AM

Lab ID: 1607E80-005

Matrix: SOIL

Received Date: 7/28/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	30	30		mg/Kg	20	8/2/2016 3:22:25 PM	26746
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	19	9.8		mg/Kg	1	8/2/2016 6:57:33 PM	26694
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/2/2016 6:57:33 PM	26694
Surr: DNOP	113	70-130		%Rec	1	8/2/2016 6:57:33 PM	26694
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2016 12:19:10 AM	26668
Surr: BFB	111	49.4-163		%Rec	1	7/30/2016 12:19:10 AM	26668
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	7/30/2016 12:19:10 AM	26668
Toluene	ND	0.050		mg/Kg	1	7/30/2016 12:19:10 AM	26668
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2016 12:19:10 AM	26668
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2016 12:19:10 AM	26668
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	7/30/2016 12:19:10 AM	26668

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607E80

04-Aug-16

Client: Williams Field Services

Project: McClanahan 15 E

Sample ID	MB-26746	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions
Client ID:	PBS	Batch ID:	26746	RunNo:	36161
Prep Date:	8/2/2016	Analysis Date:	8/2/2016	SeqNo:	1119923 Units: mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5			

Sample ID	LCS-26746	SampType:	LCS	TestCode:	EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID:	26746	RunNo:	36161
Prep Date:	8/2/2016	Analysis Date:	8/2/2016	SeqNo:	1119924 Units: mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5	15.00	0	90.1 90 110

Sample ID	MB-26746	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions
Client ID:	PBS	Batch ID:	26746	RunNo:	36168
Prep Date:	8/2/2016	Analysis Date:	8/2/2016	SeqNo:	1120448 Units: mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5			

Sample ID	LCS-26746	SampType:	LCS	TestCode:	EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID:	26746	RunNo:	36168
Prep Date:	8/2/2016	Analysis Date:	8/2/2016	SeqNo:	1120449 Units: mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5	15.00	0	91.6 90 110

## Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607E80

04-Aug-16

Client: Williams Field Services

Project: McClanahan 15 E

Sample ID	LCS-26694		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 26694		RunNo: 36120					
Prep Date:	7/29/2016		Analysis Date: 8/1/2016		SeqNo: 1118973		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	62.6	124			
Surr: DNOP	4.6		5.000		91.4	70	130			

Sample ID	MB-26694		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	26694		RunNo:	36120				
Prep Date:	7/29/2016		Analysis Date:	8/1/2016		SeqNo:	1118974		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.1		10.00		81.1	70	130				

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607E80

04-Aug-16

Client: Williams Field Services

Project: McClanahan 15 E

Sample ID	MB-26668	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	26668	RunNo:	36097					
Prep Date:	7/28/2016	Analysis Date:	7/29/2016	SeqNo:	1118419	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.3	49.4	163			

Sample ID	LCS-26668	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	26668	RunNo:	36097					
Prep Date:	7/28/2016	Analysis Date:	7/29/2016	SeqNo:	1118420	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	1100		1000		108	49.4	163			

## Qualifiers:

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1607E80

04-Aug-16

Client: Williams Field Services

Project: McClanahan 15 E

Sample ID	MB-26668		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 26668		RunNo: 36097					
Prep Date:	7/28/2016		Analysis Date: 7/29/2016		SeqNo: 1118455		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.87		1.000		87.1	80	120			

Sample ID	LCS-26668		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 26668		RunNo: 36097					
Prep Date:	7/28/2016		Analysis Date: 7/29/2016		SeqNo: 1118456		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.2	75.3	123			
Toluene	0.92	0.050	1.000	0	92.4	80	124			
Ethylbenzene	0.99	0.050	1.000	0	99.2	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	98.9	83.9	122			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120			

## Qualifiers:

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



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

## Sample Log-In Check List

Client Name: WILLIAMS FIELD SERVI

Work Order Number: 1607E80

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>07/28/16</i>
Logged By:	Lindsay Mangin	7/28/2016 7:30:00 AM
Completed By:	Lindsay Mangin	7/28/2016 10:34:16 AM
Reviewed By:	<i>[Signature]</i>	<i>07/28/16</i>

### Chain of Custody

- |  |   |                             |   |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 2. Is Chain of Custody complete?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 3. How was the sample delivered?           | Courier                                 |                             |   |

### Log In

- |  |   |  |  |
|--|---|--|--|
| 4. Was an attempt made to cool the samples?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | NA <input type="checkbox"/>                      |
| 5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to $6.0^{\circ}\text{C}$ | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | NA <input type="checkbox"/>                      |
| 6. Sample(s) in proper container(s)?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 7. Sufficient sample volume for indicated test(s)?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 8. Are samples (except VOA and ONG) properly preserved?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 9. Was preservative added to bottles?  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/>                      |
| 10. VOA vials have zero headspace?   | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | No VOA Vials <input checked="" type="checkbox"/> |
| 11. Were any sample containers received broken?  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |  |
| 12. Does paperwork match bottle labels?<br>(Note discrepancies on chain of custody)            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 13. Are matrices correctly identified on Chain of Custody?                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 14. Is it clear what analyses were requested?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| 15. Were all holding times able to be met?<br>(If no, notify customer for authorization.)      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			



<h1>Chain-of-Custody Record</h1>		Turn-Around Time:	
Client: <u>WFS</u>		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____	
Mailing Address: <u>188 CR 4900</u> <u>Bloomfield NM 87413</u>		Project Name: <u>McClanahan 15 E</u>	
Phone #: <u>505-632-4475</u>		Project #:	
Email or Fax#: <u>KiJun.Hong@williams.com</u>		Project Manager:	
QA/QC Package:		<u>KiJun Hong</u>	
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: <u>Morgan Killian</u>	
Accreditation		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		Sample Temperature: <u>2.7 - 1.0 = 1.7</u>	
<input type="checkbox"/> EDD (Type)			

☒ Standard ☐ Rush

Project Name: MCC/ANahon 15 E

Project #:

Project Manager:


KITAN HONG

Sampler: Norson Killian

On Ice: ☒ Yes ☐ No

Sample Temperature:  $2.7 - 1.0y = 1.7$

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/16	1415	Mary Killion	Christine Wacht	7/16	1415
Date:	Time:	Relinquished by:	Received by:	Date	Time
7/16	1855	Christine Libeler		7/28/16	0730



[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

[illegible]

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: Williams Four Corners LLC	Contact: Matt Webre
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4442
Facility Name: 809 Pipeline	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: BLM	Mineral Owner	API No.
--------------------	---------------	---------

**LOCATION OF RELEASE**

Unit Letter F	Section 28	Township 27N	Range 10W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.57656° N Longitude -107.90356° W

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: 1,247 MCF Natural Gas	Volume Recovered: 0 MCF Natural Gas
Source of Release: Pipeline	Date and Hour of Occurrence: 06/16/15 at 11:30 AM MST	Date and Hour of Discovery: 06/16/15 at 11:30 AM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith, NMOCD Shari Ketcham, BLM	
By Whom? Kelsey Christiansen	Date and Hour: 06/17/15 at 7:15 AM MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.\*

AUG 11 2016

Not Applicable

Describe Cause of Problem and Remedial Action Taken.\*

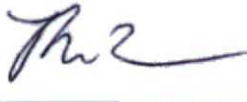

Williams' personnel discovered a pinhole leak on the 809 Pipeline on June 16, 2015. The pipeline was isolated and adjacent well heads were shut in while repairs to the pipeline were made. Approximately 1,247 MCF of natural gas was released.

Describe Area Affected and Cleanup Action Taken.\*

Confirmation soil samples were collected on July 7, 2015 and August 21, 2015. The July 7, 2015 results indicated TPH above the closure standard. Additional soil was excavated and the confirmation samples collected on August 21, 2015 demonstrated concentrations were below all closure standards.

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 "Final 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.

**OIL CONSERVATION DIVISION**

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Matt Webre		
Title: EH&S Supervisor	Approval Date: 10/5/2016	Expiration Date:
E-mail Address: matt.webre@williams.com	Conditions of Approval: NCS1517327017	Attached <input type="checkbox"/>
Date: 08/08/2016	Phone: (505) 632-4442	

\* Attach Additional Sheets If Necessary

18



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

July 14, 2015

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Hargrove K #1F

OrderNo.: 1507284

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/8/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1507284

Date Reported: 7/14/2015

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Hargrove K 1F Side Walls Comp

Project: Hargrove K #1F

Collection Date: 7/7/2015 1:30:00 PM

Lab ID: 1507284-001

Matrix: SOIL

Received Date: 7/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	43	30		mg/Kg	20	7/13/2015 1:50:21 PM	20224
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/10/2015 9:40:49 PM	20154
Surr: DNOP	86.2	57.9-140		%REC	1	7/10/2015 9:40:49 PM	20154
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/11/2015 6:35:01 AM	20172
Surr: BFB	94.9	75.4-113		%REC	1	7/11/2015 6:35:01 AM	20172
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/11/2015 6:35:01 AM	20172
Toluene	ND	0.050		mg/Kg	1	7/11/2015 6:35:01 AM	20172
Ethylbenzene	ND	0.050		mg/Kg	1	7/11/2015 6:35:01 AM	20172
Xylenes, Total	ND	0.099		mg/Kg	1	7/11/2015 6:35:01 AM	20172
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	7/11/2015 6:35:01 AM	20172

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



**Analytical Report**

Lab Order 1507284

Date Reported: 7/14/2015

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Hargrove KIF Bottom Comp**Project:** Hargrove K #1F**Collection Date:** 7/7/2015 1:40:00 PM**Lab ID:** 1507284-002**Matrix:** SOIL**Received Date:** 7/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	7/13/2015 2:27:34 PM	20224
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	38	9.9		mg/Kg	1	7/10/2015 10:08:24 PM	20154
Surr: DNOP	90.5	57.9-140		%REC	1	7/10/2015 10:08:24 PM	20154
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	200	25		mg/Kg	5	7/13/2015 4:04:51 PM	20172
Surr: BFB	169	75.4-113	S	%REC	5	7/13/2015 4:04:51 PM	20172
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.33	0.25		mg/Kg	5	7/13/2015 4:04:51 PM	20172
Toluene	6.2	0.25		mg/Kg	5	7/13/2015 4:04:51 PM	20172
Ethylbenzene	1.5	0.25		mg/Kg	5	7/13/2015 4:04:51 PM	20172
Xylenes, Total	15	0.49		mg/Kg	5	7/13/2015 4:04:51 PM	20172
Surr: 4-Bromofluorobenzene	113	80-120		%REC	5	7/13/2015 4:04:51 PM	20172

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507284

14-Jul-15

Client: Williams Field Services

Project: Hargrove K #1F

Sample ID	MB-20224	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	20224	RunNo:	27466					
Prep Date:	7/13/2015	Analysis Date:	7/13/2015	SeqNo:	824117	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-20224	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	20224	RunNo:	27466					
Prep Date:	7/13/2015	Analysis Date:	7/13/2015	SeqNo:	824118	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507284

14-Jul-15

Client: Williams Field Services

Project: Hargrove K #1F

Sample ID	MB-20154	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20154	RunNo:	27405					
Prep Date:	7/8/2015	Analysis Date:	7/10/2015	SeqNo:	823073	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		95.9	57.9	140			

Sample ID	LCS-20154	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20154	RunNo:	27405					
Prep Date:	7/8/2015	Analysis Date:	7/10/2015	SeqNo:	823074	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	57.4	139			
Surr: DNOP	4.9		5.000		98.8	57.9	140			

Sample ID	MB-20179	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20179	RunNo:	27449					
Prep Date:	7/9/2015	Analysis Date:	7/13/2015	SeqNo:	823595	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.3	57.9	140			

Sample ID	LCS-20179	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20179	RunNo:	27449					
Prep Date:	7/9/2015	Analysis Date:	7/13/2015	SeqNo:	823596	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.2	57.9	140			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1507284

14-Jul-15

Client: Williams Field Services

Project: Hargrove K #1F

Sample ID	MB-20172		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	20172		RunNo:	27422				
Prep Date:	7/9/2015		Analysis Date:	7/10/2015		SeqNo:	822756		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	930		1000		92.6	75.4	113				

Sample ID	LCS-20172		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20172		RunNo: 27422					
Prep Date:	7/9/2015		Analysis Date: 7/10/2015		SeqNo: 822757		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.6	64	130			
Surr: BFB	990		1000		99.4	75.4	113			

Sample ID	MB-20188		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	20188		RunNo:	27446				
Prep Date:	7/9/2015		Analysis Date:	7/13/2015		SeqNo:	823980		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	910		1000		90.7	75.4	113				

Sample ID	LCS-20188		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 20188		RunNo: 27446					
Prep Date:	7/9/2015		Analysis Date: 7/13/2015		SeqNo: 823981		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.1	75.4	113			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
O RSD is greater than RSDlimit  
R RPD outside accepted recovery limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
P Sample pH Not In Range  
RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507284

14-Jul-15

Client: Williams Field Services

Project: Hargrove K #1F

Sample ID	MB-20172		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	20172		RunNo:	27422			
Prep Date:	7/9/2015		Analysis Date:	7/10/2015		SeqNo:	822799		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-20172		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	20172		RunNo:	27422			
Prep Date:	7/9/2015		Analysis Date:	7/10/2015		SeqNo:	822800		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.9	76.6	128			
Toluene	0.95	0.050	1.000	0	95.2	75	124			
Ethylbenzene	1.0	0.050	1.000	0	99.8	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	99.4	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	MB-20188		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	20188		RunNo:	27446			
Prep Date:	7/9/2015		Analysis Date:	7/13/2015		SeqNo:	824010		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Sample ID	LCS-20188		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	20188		RunNo:	27446			
Prep Date:	7/9/2015		Analysis Date:	7/13/2015		SeqNo:	824011		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

## Qualifiers:

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |





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: WILLIAMS FIELD SERVI

Work Order Number: 1507284

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

7/8/2015 7:00:00 AM

Completed By: Lindsay Mangin

7/8/2015 8:35:51 AM

Reviewed By:

KMS

7/9/15

*July Hago*

*July Hago*

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes			



Turn-Around Time:	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush _____
Project Name:	
Hargrove K <sup>#</sup> 1 F	
Project #:	

Client: WFS

☒ Standard ☐ Rush

Mailing Address: 188 CR 4900

Project Name:

Bloomfield Nm 87413

Project #:

Phone #: 505-215-7433

Email or Fax#: Kelsey.christensen@williams.edu

**Project Manager:**

**2A/QC Package:**

☐ Standard ☐ Level 4 (Full Validation)

### Accreditation

☐ NELAP      ☐ Other

#### EDD (Type)

Kelsey Christensen

Sampler: Morgan Killion

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.2

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
7/15	1527	Mary Kupper	Mustache	7/15	1527
Date:	Time:	Relinquished by:	Received by:	Date:	Time:
7/15	1747	Mustache	<del>Mustache</del>	07/08/15	0700

Remarks:



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

X	BTEX + MTBE + TMB's (8021)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (GRO / DRO / MRO)
	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions ( $F, Cl, NO_3, NO_2, PO_4, SO_4$ )
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
X	Chloride
	Air Bubbles (Y or N)



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

August 31, 2015

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Hargrave K-1F 809 Gathering Line Leak

OrderNo.: 1508B83

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/22/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Analytical Report**Lab Order **1508B83**

Date Reported: 8/31/2015

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Field Services**Client Sample ID:** Hargrave K1-F 809 Gathering B**Project:** Hargrave K-1F 809 Gathering Line Leak**Collection Date:** 8/21/2015 1:30:00 PM**Lab ID:** 1508B83-001**Matrix:** SOIL**Received Date:** 8/22/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	8/27/2015 1:39:35 PM	21013
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/27/2015 1:05:15 PM	20981
Surr: DNOP	74.7	57.9-140		%REC	1	8/27/2015 1:05:15 PM	20981
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/26/2015 1:53:09 PM	20969
Surr: BFB	86.4	75.4-113		%REC	1	8/26/2015 1:53:09 PM	20969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	8/26/2015 1:53:09 PM	20969
Toluene	0.051	0.048		mg/Kg	1	8/26/2015 1:53:09 PM	20969
Ethylbenzene	ND	0.048		mg/Kg	1	8/26/2015 1:53:09 PM	20969
Xylenes, Total	0.11	0.096		mg/Kg	1	8/26/2015 1:53:09 PM	20969
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	8/26/2015 1:53:09 PM	20969

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 5
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1508B83

Date Reported: 8/31/2015

CLIENT: Williams Field Services

Client Sample ID: Hargrave K1-F 809 Gathering Si

Project: Hargrave K-1F 809 Gathering Line Leak

Collection Date: 8/21/2015 1:40:00 PM

Lab ID: 1508B83-002

Matrix: SOIL

Received Date: 8/22/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	8/27/2015 1:51:59 PM	21013
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/27/2015 2:09:26 PM	20981
Surr: DNOP	77.3	57.9-140		%REC	1	8/27/2015 2:09:26 PM	20981
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	54	9.8		mg/Kg	2	8/26/2015 3:07:44 PM	20969
Surr: BFB	130	75.4-113	S	%REC	2	8/26/2015 3:07:44 PM	20969
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.098		mg/Kg	2	8/26/2015 3:07:44 PM	20969
Toluene	0.30	0.098		mg/Kg	2	8/26/2015 3:07:44 PM	20969
Ethylbenzene	0.17	0.098		mg/Kg	2	8/26/2015 3:07:44 PM	20969
Xylenes, Total	1.7	0.20		mg/Kg	2	8/26/2015 3:07:44 PM	20969
Surr: 4-Bromofluorobenzene	112	80-120		%REC	2	8/26/2015 3:07:44 PM	20969

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B83

31-Aug-15

Client: Williams Field Services

Project: Hargrave K-1F 809 Gathering Line Leak

Sample ID	1508B83-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Hargrave K1-F 809	Batch ID:	20981	RunNo:	28499					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	861888	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.71	0	81.6	42.3	146			
Surr: DNOP	3.5		5.071		68.8	57.9	140			

Sample ID	1508B83-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Hargrave K1-F 809	Batch ID:	20981	RunNo:	28499					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	861889	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.8	49.02	0	89.9	42.3	146	6.39	28.9	
Surr: DNOP	3.5		4.902		71.8	57.9	140	0	0	

Sample ID	MB-20981	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20981	RunNo:	28501					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	862004	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.7	57.9	140			

Sample ID	LCS-20981	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20981	RunNo:	28501					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	862005	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.7	57.4	139			
Surr: DNOP	4.7		5.000		94.1	57.9	140			

### 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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B83

31-Aug-15

Client: Williams Field Services

Project: Hargrave K-1F 809 Gathering Line Leak

Sample ID	MB-20969	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	20969	RunNo:	28483					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	860952	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	800		1000		79.9	75.4	113			

Sample ID	LCS-20969	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	20969	RunNo:	28483					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	860953	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	102	79.6	122			
Surr: BFB	920		1000		92.2	75.4	113			

Sample ID	1508B83-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Hargrave K1-F 809	Batch ID:	20969	RunNo:	28483					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	860955	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	24.88	1.449	119	62.5	151			
Surr: BFB	950		995.0		95.3	75.4	113			

Sample ID	1508B83-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	Hargrave K1-F 809	Batch ID:	20969	RunNo:	28483					
Prep Date:	8/25/2015	Analysis Date:	8/26/2015	SeqNo:	860956	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.8	23.99	1.449	122	62.5	151	1.43	22.1	
Surr: BFB	900		959.7		93.9	75.4	113	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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B83

31-Aug-15

Client: Williams Field Services

Project: Hargrave K-1F 809 Gathering Line Leak

Sample ID	<b>MB-20969</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>20969</b>		RunNo:	<b>28483</b>			
Prep Date:	<b>8/25/2015</b>		Analysis Date:	<b>8/26/2015</b>		SeqNo:	<b>861082</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120			

Sample ID	<b>LCS-20969</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>20969</b>		RunNo:	<b>28483</b>			
Prep Date:	<b>8/25/2015</b>		Analysis Date:	<b>8/26/2015</b>		SeqNo:	<b>861083</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.1	76.6	128			
Toluene	0.95	0.050	1.000	0	95.1	75	124			
Ethylbenzene	1.0	0.050	1.000	0	99.6	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	96.1	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	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



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: WILLIAMS FIELD SERVI

Work Order Number: 1508B83

RcptNo: 1

Received by/date: J.A. 08/22/15

Logged By: Ashley Gallegos 8/22/2015 8:30:00 AM

Completed By: Ashley Gallegos 8/24/2015 5:50:12 PM

Reviewed By: CS 08/25/15

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			



Client: WFS

Client: WFS

Mailing Address: 188 CR 4900

Bloomfield nm 8741.3

Phone #: 505-215-7433

email or Fax#: Kelsey.Christiansen@williams.edu

**QA/QC Package:**

☐ Standard ☐ Level 4 (Full Validation)

## Accreditation

☐ NELAP      ☐ Other☐ EDD (Type)

**Turn-Around Time:**

☒ Standard      ☐ Rush

Project Name:

Project Name: Hargrave K-1F 809 Gether's  
Live hawk

Project #:

Project Manager:

Kelsey Christiansen

Sampler: Morgan Killison

On Ice: ☒ Yes ☐ No

Sample Temperature 1.9

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/1/15	1745	Morgan Killion	Christa Laet	8/21/15	1745

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/21/15	1824	Matthew Wactere	Mr. [Signature]	08/22/15	0830



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975      Fax 505-345-4107

## Analysis Request

	X	X	BTEX + MTBE + TMB's (8021)
			BTEX + MTBE + TPH (Gas only)
	X	X	TPH 8015B (GRO / DRO / MRO)
			TPH (Method 418.1)
			EDB (Method 504.1)
			PAH's (8310 or 8270 SIMS)
			RCRA 8 Metals
			Anions ( $F^-$ , $Cl^-$ , $NO_3^-$ , $NO_2^-$ , $PO_4^{3-}$ , $SO_4^{2-}$ )
			8081 Pesticides / 8082 PCB's
			8260B (VOA)
			8270 (Semi-VOA)
	X	X	ch boride
			Air Bubbles (Y or N)

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: Williams Four Corners LLC	Contact: Matt Webre
Address: 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4606
Facility Name: Breech D 240 E Pipeline	Facility Type: Natural Gas Gathering Pipeline
Surface Owner: Bureau of Land Management	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter F	Section 15	Township 26N	Range 6W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	-------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.490327°N Longitude -107.457583°W

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: Approximately 62 MCF Natural Gas	Volume Recovered: 0 MCF
Source of Release: Pinhole on the pipeline	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 11/25/15 at 02:30 PM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**OIL CONS. DIV DIST. 3**

If a Watercourse was Impacted, Describe Fully.\*

Not Applicable

**AUG 11 2016**

Describe Cause of Problem and Remedial Action Taken.\*

On November 25, 2015 Williams leak survey crew discovered a suspected pinhole leak on the Breech D 240 E Pipeline which caused the release of approximately 62 MCF natural gas. Repairs were safely made to the pipeline.

Describe Area Affected and Cleanup Action Taken.\*

Confirmation soil samples were collected on January 18, 2016 and February 1, 2016. The January 18, 2016 results indicated BTEX and TPH concentrations above the closure standard (west sidewall). Additional soil was excavated and the confirmation sample collected on February 1, 2016 demonstrated concentrations were below all closure standards.

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 "Final 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.

**OIL CONSERVATION DIVISION**

Signature:



Approved by Environmental Specialist:

Printed Name: Matt Webre

Title: EH&S Supervisor

Approval Date: 10/5/2016

Expiration Date:

E-mail Address: matt.webre@williams.com

Conditions of Approval:

Attached ☐

Date: 8/8/2016

Phone: (505) 632-4442

NVF 1535738238

\* Attach Additional Sheets If Necessary

21



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

January 26, 2016

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Breech D #240 E

OrderNo.: 1601619

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/19/2016 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



## Analytical Report

Lab Order 1601619

Date Reported: 1/26/2016

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Williams Field Services

Client Sample ID: Breech D 240 E Bottom Comp Si

Project: Breech D #240 E

Collection Date: 1/18/2016 2:15:00 PM

Lab ID: 1601619-001

Matrix: SOIL

Received Date: 1/19/2016 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/20/2016 11:26:14 AM	23303
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	16	10		mg/Kg	1	1/20/2016 12:32:49 PM	23288
Surr: DNOP	128	70-130		%REC	1	1/20/2016 12:32:49 PM	23288
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	42	4.9		mg/Kg	1	1/21/2016 8:16:10 PM	23284
Surr: BFB	212	66.2-112	S	%REC	1	1/21/2016 8:16:10 PM	23284
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.053	0.049		mg/Kg	1	1/21/2016 8:16:10 PM	23284
Toluene	0.92	0.049		mg/Kg	1	1/21/2016 8:16:10 PM	23284
Ethylbenzene	0.25	0.049		mg/Kg	1	1/21/2016 8:16:10 PM	23284
Xylenes, Total	3.0	0.098		mg/Kg	1	1/21/2016 8:16:10 PM	23284
Surr: 4-Bromofluorobenzene	124	80-120	S	%REC	1	1/21/2016 8:16:10 PM	23284

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

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



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1601619

Date Reported: 1/26/2016

**CLIENT:** Williams Field Services**Client Sample ID:** Breech D 240 E North Wall**Project:** Breech D #240 E**Collection Date:** 1/18/2016 2:20:00 PM**Lab ID:** 1601619-002**Matrix:** SOIL**Received Date:** 1/19/2016 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/20/2016 12:03:28 PM	23303
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/25/2016 9:26:29 AM	23288
Surr: DNOP	101	70-130		%REC	1	1/25/2016 9:26:29 AM	23288
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/20/2016 4:05:05 PM	23284
Surr: BFB	96.8	66.2-112		%REC	1	1/20/2016 4:05:05 PM	23284
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	1/20/2016 4:05:05 PM	23284
Toluene	ND	0.047		mg/Kg	1	1/20/2016 4:05:05 PM	23284
Ethylbenzene	ND	0.047		mg/Kg	1	1/20/2016 4:05:05 PM	23284
Xylenes, Total	ND	0.094		mg/Kg	1	1/20/2016 4:05:05 PM	23284
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/20/2016 4:05:05 PM	23284

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

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

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1601619

Date Reported: 1/26/2016

**CLIENT:** Williams Field Services**Client Sample ID:** Breech D 240 E South**Project:** Breech D #240 E**Collection Date:** 1/18/2016 2:25:00 PM**Lab ID:** 1601619-003**Matrix:** SOIL**Received Date:** 1/19/2016 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/20/2016 12:15:53 PM	23303
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/20/2016 1:28:49 PM	23288
Surr: DNOP	138	70-130	S	%REC	1	1/20/2016 1:28:49 PM	23288
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/20/2016 4:28:41 PM	23284
Surr: BFB	99.5	66.2-112		%REC	1	1/20/2016 4:28:41 PM	23284
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	1/20/2016 4:28:41 PM	23284
Toluene	ND	0.048		mg/Kg	1	1/20/2016 4:28:41 PM	23284
Ethylbenzene	ND	0.048		mg/Kg	1	1/20/2016 4:28:41 PM	23284
Xylenes, Total	ND	0.096		mg/Kg	1	1/20/2016 4:28:41 PM	23284
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/20/2016 4:28:41 PM	23284

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

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

**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1601619

Date Reported: 1/26/2016

**CLIENT:** Williams Field Services**Client Sample ID:** Breech D 240 E East**Project:** Breech D #240 E**Collection Date:** 1/18/2016 2:30:00 PM**Lab ID:** 1601619-004**Matrix:** SOIL**Received Date:** 1/19/2016 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/20/2016 12:28:17 PM	23303
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/25/2016 9:54:20 AM	23288
Surr: DNOP	97.8	70-130		%REC	1	1/25/2016 9:54:20 AM	23288
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/21/2016 9:49:49 PM	23284
Surr: BFB	89.0	66.2-112		%REC	1	1/21/2016 9:49:49 PM	23284
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	1/21/2016 9:49:49 PM	23284
Toluene	ND	0.047		mg/Kg	1	1/21/2016 9:49:49 PM	23284
Ethylbenzene	ND	0.047		mg/Kg	1	1/21/2016 9:49:49 PM	23284
Xylenes, Total	ND	0.093		mg/Kg	1	1/21/2016 9:49:49 PM	23284
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	1/21/2016 9:49:49 PM	23284

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

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



# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Breech D 240 E West

Project: Breech D #240 E

Collection Date: 1/18/2016 2:35:00 PM

Lab ID: 1601619-005

Matrix: SOIL

Received Date: 1/19/2016 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	ND	30		mg/Kg	20	1/20/2016 1:05:30 PM	23303
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: TOM
Diesel Range Organics (DRO)	140	10		mg/Kg	1	1/20/2016 2:25:55 PM	23288
Surr: DNOP	71.6	70-130		%REC	1	1/20/2016 2:25:55 PM	23288
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	1200	24		mg/Kg	5	1/20/2016 9:11:10 PM	23284
Surr: BFB	610	66.2-112	S	%REC	5	1/20/2016 9:11:10 PM	23284
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	0.71	0.24		mg/Kg	5	1/20/2016 9:11:10 PM	23284
Toluene	25	2.4		mg/Kg	50	1/21/2016 10:13:07 PM	23284
Ethylbenzene	6.8	0.24		mg/Kg	5	1/20/2016 9:11:10 PM	23284
Xylenes, Total	59	4.8		mg/Kg	50	1/21/2016 10:13:07 PM	23284
Surr: 4-Bromofluorobenzene	158	80-120	S	%REC	5	1/20/2016 9:11:10 PM	23284

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601619

26-Jan-16

Client: Williams Field Services

Project: Breech D #240 E

Sample ID	MB-23303	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	23303	RunNo	31577					
Prep Date	1/20/2016	Analysis Date	1/20/2016	SeqNo	966547	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23303	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	23303	RunNo	31577					
Prep Date	1/20/2016	Analysis Date	1/20/2016	SeqNo	966548	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

## 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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601619

26-Jan-16

Client: Williams Field Services

Project: Breech D #240 E

Sample ID	MB-23288	SampType	MBLK	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	PBS	Batch ID	23288	RunNo	31544					
Prep Date	1/19/2016	Analysis Date	1/20/2016	SeqNo	965695	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		123	70	130			

Sample ID	LCS-23288	SampType	LCS	TestCode	EPA Method 8015M/D: Diesel Range Organics					
Client ID	LCSS	Batch ID	23288	RunNo	31544					
Prep Date	1/19/2016	Analysis Date	1/20/2016	SeqNo	965700	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	109	65.8	136			
Surr: DNOP	5.7		5.000		114	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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601619

26-Jan-16

Client: Williams Field Services

Project: Breech D #240 E

Sample ID	MB-23284	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23284	RunNo:	31539					
Prep Date:	1/19/2016	Analysis Date:	1/20/2016	SeqNo:	966347	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.0	66.2	112			

Sample ID	LCS-23284		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 23284		RunNo: 31539					
Prep Date:	1/19/2016		Analysis Date: 1/20/2016		SeqNo: 966348		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	79.6	122			
Surr: BFB	1000		1000		99.5	66.2	112			

Sample ID	MB-23316	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	23316	RunNo:	31590					
Prep Date:	1/20/2016	Analysis Date:	1/21/2016	SeqNo:	967276	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		90.5	66.2	112			

Sample ID	LCS-23316	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	23316	RunNo:	31590					
Prep Date:	1/20/2016	Analysis Date:	1/21/2016	SeqNo:	967277	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	66.2	112			

Sample ID	1601619-001AMS			SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	Breech D 240 E Bott			Batch ID:	23284		RunNo:	31590			
Prep Date:	1/19/2016		Analysis Date:	1/21/2016		SeqNo:	967287		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	63	4.9	24.44	42.36	84.5	59.3	143				
Surr: BFB	2100		977.5		219	66.2	112			S	

Sample ID	1601619-001AMSD			SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	Breech D 240 E Bott			Batch ID:	23284		RunNo:	31590			
Prep Date:	1/19/2016		Analysis Date:	1/21/2016		SeqNo:	967288		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	56	4.9	24.46	42.36	54.8	59.3	143	14.2	20	S	
Surr: BFB	1900		978.5		199	66.2	112	0	0	S	

## 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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1601619

26-Jan-16

Client: Williams Field Services

Project: Breech D #240 E

Sample ID	MB-23284		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23284		RunNo:	31539			
Prep Date:	1/19/2016		Analysis Date:	1/20/2016		SeqNo:	966364		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-23284		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23284		RunNo:	31539			
Prep Date:	1/19/2016		Analysis Date:	1/20/2016		SeqNo:	966365		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.1	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Sample ID	MB-23316		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	23316		RunNo:	31590			
Prep Date:	1/20/2016		Analysis Date:	1/21/2016		SeqNo:	967296		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-23316		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	23316		RunNo:	31590			
Prep Date:	1/20/2016		Analysis Date:	1/21/2016		SeqNo:	967298		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
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





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: WILLIAMS FIELD SERVI

Work Order Number: 1601619

RcptNo: 1

Received by/date:

JA

01/19/16

Logged By: Lindsay Mangin

1/19/2016 7:45:00 AM

*[Signature]*

Completed By: Lindsay Mangin

1/19/2016 8:59:45 AM

*[Signature]*

Reviewed By:

IO

01/19/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			



ient: WFS

ient: WFS

Mailing Address: 188 CR 4900

3100m Field NM 87412

Phone #: 505-215-7433

nail or Fax#: Kelscy.Christiansen@will

VQC Package:

☐ Level 4 (Full Validation)

accreditation

☒ NELAP ☐ Other

EDD (Type)

**Turn-Around Time:**

☒ Standard      ☐ Rush

Project Name: Brecch D #240 E

Project #:

**Project Manager:**

Kelsey christiansen

Sampler: Morgan Killion

On Ice: ☒ Yes ☐ No

Sample Temperature: 23

[illegible]

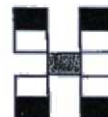
ate:	Time:	Relinquished by:
8/16	1720	Mary Lillian

Received by:	Date	Time
<i>Christine L. Hertz</i>	1/18/16	1726

ate:	Time:	Relinquished by:
4/16	1943	Christ Weller

Received by:	Date	Time
<i>JAC. ent</i>	<i>01/19/16</i>	<i>0745</i>

Remarks:



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

	X	X	X	X	BTEX + MTBE + TMB's (8021)
					BTEX + MTBE + TPH (Gas only)
	X	X	X	X	TPH 8015B (GRO / DRO / MRO)
					TPH (Method 418.1)
					EDB (Method 504.1)
					PAH's (8310 or 8270 SIMS)
					RCRA 8 Metals
					Anions ( $F, Cl, NO_3, NO_2, PO_4, SO_4$ )
					8081 Pesticides / 8082 PCB's
					8260B (VOA)
					8270 (Semi-VOA)
	X	X	X	X	Chloride
					Air Bubbles (Y or N)

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



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

February 04, 2016

Kelsey Christiansen  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, New Mexico 87413  
TEL:  
FAX

RE: Breech D240E West Wall 002

OrderNo.: 1602033

Dear Kelsey Christiansen:

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

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

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

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

Sincerely,

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Hall Environmental Analysis Laboratory, Inc.****Analytical Report**

Lab Order 1602033

Date Reported: 2/4/2016

**CLIENT:** Williams Field Services**Client Sample ID:** Breech D240 E West Wall 002**Project:** Breech D240E West Wall 002**Collection Date:** 2/1/2016 10:20:00 AM**Lab ID:** 1602033-001**Matrix:** SOIL**Received Date:** 2/2/2016 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	2/3/2016 8:21:18 PM	23569
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/3/2016 11:27:25 AM	23511
Surr: DNOP	106	70-130		%Rec	1	2/3/2016 11:27:25 AM	23511
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	21	4.8		mg/Kg	1	2/3/2016 12:30:47 PM	23523
Surr: BFB	142	66.2-112	S	%Rec	1	2/3/2016 12:30:47 PM	23523
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.048		mg/Kg	1	2/3/2016 12:30:47 PM	23523
Toluene	0.054	0.048		mg/Kg	1	2/3/2016 12:30:47 PM	23523
Ethylbenzene	0.092	0.048		mg/Kg	1	2/3/2016 12:30:47 PM	23523
Xylenes, Total	0.76	0.097		mg/Kg	1	2/3/2016 12:30:47 PM	23523
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	1	2/3/2016 12:30:47 PM	23523

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602033

04-Feb-16

Client: Williams Field Services  
Project: Breech D240E West Wall 002

Sample ID	MB-23569	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	23569	RunNo:	31901					
Prep Date:	2/3/2016	Analysis Date:	2/3/2016	SeqNo:	976133	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-23569		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	23569		RunNo:	31901				
Prep Date:	2/3/2016		Analysis Date:	2/3/2016		SeqNo:	976134		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.7	90	110				

## Qualifiers:

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602033

04-Feb-16

Client: Williams Field Services  
Project: Breech D240E West Wall 002

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	Qual
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
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	LCS-23511	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
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	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	65.8	136			
Surr: DNOP	6.0		5.000		120	70	130			

## Qualifiers:

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

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

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602033

04-Feb-16

Client: Williams Field Services  
Project: Breech D240E West Wall 002

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: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	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: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.4	79.6	122			
Surr: BFB	990		1000		99.5	66.2	112			

Sample ID	1602033-001AMS2	SampType	MS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	Breech D240 E Wes	Batch ID	23523	RunNo	31884					
Prep Date	2/2/2016	Analysis Date	2/3/2016	SeqNo	975775	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	40	4.7	23.67	21.21	80.5	59.3	143			
Surr: BFB	1500		947.0		155	66.2	112			S

Sample ID	1602033-001AMSD2	SampType	MSD	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	Breech D240 E Wes	Batch ID	23523	RunNo	31884					
Prep Date	2/2/2016	Analysis Date	2/3/2016	SeqNo	975776	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	55	4.7	23.28	21.21	147	59.3	143	31.8	20	RS
Surr: BFB	1700		931.1		184	66.2	112	0	0	S

## Qualifiers:

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

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



# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602033

04-Feb-16

Client: Williams Field Services  
Project: Breech D240E West Wall 002

Sample ID	MB-23523		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 23523	RunNo: 31884						
Prep Date:	2/2/2016		Analysis Date: 2/3/2016	SeqNo: 975781		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	LCS-23523		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 23523	RunNo: 31884						
Prep Date:	2/2/2016		Analysis Date: 2/3/2016	SeqNo: 975782		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		120	80	120			

Sample ID	1602033-001AMS		SampType: MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	Breech D240 E Wes		Batch ID: 23523	RunNo: 31884						
Prep Date:	2/2/2016		Analysis Date: 2/3/2016	SeqNo: 975784		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	0.9970	0.02254	116	71.5	122			
Toluene	1.3	0.050	0.9970	0.05400	123	71.2	123			
Ethylbenzene	1.3	0.050	0.9970	0.09217	123	75.2	130			
Xylenes, Total	4.5	0.10	2.991	0.7550	126	72.4	131			
Surr: 4-Bromofluorobenzene	1.3		0.9970		129	80	120			S

Sample ID	1602033-001AMSD		SampType: MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	Breech D240 E Wes		Batch ID: 23523	RunNo: 31884						
Prep Date:	2/2/2016		Analysis Date: 2/3/2016	SeqNo: 975785		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.049	0.9843	0.02254	104	71.5	122	11.8	20	
Toluene	1.1	0.049	0.9843	0.05400	102	71.2	123	18.5	20	
Ethylbenzene	1.1	0.049	0.9843	0.09217	103	75.2	130	18.1	20	
Xylenes, Total	3.6	0.098	2.953	0.7550	98.0	72.4	131	21.2	20	R
Surr: 4-Bromofluorobenzene	1.1		0.9843		116	80	120	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



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: WILLIAMS FIELD SERVI

Work Order Number: 1602033

RcptNo: 1

Received by/date: \_\_\_\_\_

Logged By: Anne Thorne 2/2/2016 7:10:00 AM

Completed By: Anne Thorne 2/2/2016

Reviewed By:  02/02/16





### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			







District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company Williams Four Corners LLC	Contact Michael Hannan
Address 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. 505-632-4807
Facility Name La Jara Compressor Station	Facility Type Compressor Station

Surface Owner Bureau of Land Management	Mineral Owner	API No.
---	---------------	---------

**LOCATION OF RELEASE**

Unit Letter M	Section 1	Township 30N	Range 9W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude 36.81754° N Longitude 107.49144° W

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 1,640 MCF	Volume Recovered 0 MCF
Source of Release Pressure Regulator Vent	Date and Hour of Occurrence 09/26/16, 10:26 PM MDT	Date and Hour of Discovery 09/26/16, 08:30 AM MDT
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith (NMOCD) Katherina Diemer (BLM)	
By Whom? Michael Hannan	Date and Hour: NMOCD 09/27/16 3:56 PM MDT; BLM 09/27/16 4:03 PM MDT (voice mail & email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*  
Not Applicable

Describe Cause of Problem and Remedial Action Taken.\*

On the morning of 9/26/16, the 3 phase separator pressure regulator vent was observed to be venting. The suction scrubber level control valve was stuck in the open position. This allowed gas at La Jara inlet pressure to be routed to the 3 phase separator, where it was vented through the pressure regulator for the 3 phase separator vessel. The venting was stopped at 8:30 AM.

The level control valve most likely stuck in the open position when the pig from Ojito was received at La Jara at 10:26 PM the previous evening. Liquids pushed by the pig would've generated liquid level in the suction scrubber that would need to be automatically drained. Once the liquid level was properly drained, the liquid level control valve did not close as designed, allowing gas to enter the 3 phase separator.



The vented volume is estimated at 10.06 hours x 163 MSCFH = 1.64 MMSCFH

Normal personnel operating rounds led to the discovery of the event, thus minimizing the duration. Operations personnel immediately responded by adjusting the level control valve to restore normal function.

Describe Area Affected and Cleanup Action Taken.\*

No clean-up required for natural gas releases vented to atmosphere.

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 "Final 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.

 Signature:		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Hannan		Approved by Environmental Specialist: 	
Title: Engineer, Sr.		Approval Date: 10/26/2016	Expiration Date:
E-mail Address: michael.hannan@williams.com		Conditions of Approval: NVF1630033390	Attached <input type="checkbox"/>
Date: 10/3/16	Phone: 505-632-4807		

\* Attach Additional Sheets If Necessary

①



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☒ Final Report

Name of Company: Williams Four Corners LLC	Contact: Mitch Morris
Address: Arroyo 1755 Arroyo Drive, Bloomfield, NM 87413	Telephone No.: (505) 632-4708
Facility Name: Chaco Compressor Station	Facility Type: Compressor Station

Surface Owner: BLM	Mineral Owner	API No.
--------------------	---------------	---------

**LOCATION OF RELEASE**

Unit Letter N	Section 27	Township 29N	Range 11W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 36.690708° N Longitude -107.978413° W

**NATURE OF RELEASE**

Type of Release: Produced Water/Natural Gas	Volume of Release: 29 BBL produced water/6.37 MCF natural gas	Volume Recovered: 28 BBL of produced water
Source of Release: Separator sight glass	Date and Hour of Occurrence: Estimated 09/30/2016 at 8:45 AM MST	Date and Hour of Discovery: Estimated 09/30/2016 at 8:45 AM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields	
By Whom? Mike Hannan	Date and Hour: 09/30/2016 ~12:51 pm MST	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	

If a Watercourse was Impacted, Describe Fully.\*

Not Applicable

OIL CONS. DIV DIST. 3

OCT 13 2016

Describe Cause of Problem and Remedial Action Taken.\*

A release from a separator sight glass o-ring was discovered at the Chaco Compressor Station. The vessel was isolated and the o-ring was repaired immediately upon discovery. It's estimated that approximately 29 barrels of produced water and 6.37 MCF of natural gas was released over a period of 3 hours, 45 minutes. The produced water release was largely contained to a concrete secondary containment structure.

Describe Area Affected and Cleanup Action Taken.\*

An estimated 28 barrels of produced water was recovered/removed by a water hauling company.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC marked as "Final 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, NMOC 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.

**OIL CONSERVATION DIVISION**

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Mitch Morris		
Title: Environmental Specialist	Approval Date: 10/26/2016	Expiration Date:
E-mail Address: Mitch.Morris@Williams.com	Conditions of Approval: N/E 1630034993	Attached <input type="checkbox"/>
Date: 10/07/2016	Phone: (505) 632-4708	

\* Attach Additional Sheets If Necessary

①