



# 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**

3/1/2018

215

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

JAN 22 2018

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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Buena Vista</b>	Facility Type: <b>Compressor Station</b>

Surface Owner: <b>State of NM</b>	Mineral Owner	BLM Project No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>A</b>	<b>32</b>	<b>24N</b>	<b>8W</b>					<b>San Juan</b>

Latitude **36.275278** Longitude **-107.698332**

**NATURE OF RELEASE**

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>1,421.658 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>1/9/2018 @ 3:00 PM</b>	Date and Hour of Discovery: <b>1/10/2018 @ 4:00 PM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith</b>	
By Whom? <b>Kijun Hong</b>	Date and Hour: <b>1/10/2018@4:07PM</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	

If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*

**A ball valve was discovered to be in a partially open position, venting fuel gas to the condensate storage tank. Valve was shut all the way.**

Describe Area Affected and Cleanup Action Taken.\*

**No liquids associated with the release. No soil impacts.**

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: <b>Kijun Hong</b>		
Title: <b>Environmental Specialist</b>	Approval Date: <b>2/26/2018</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>—</b>	Attached <input type="checkbox"/>
Date: <b>1/18/2018</b>	Phone: <b>(505) 632-4475</b>	

\* Attach Additional Sheets If Necessary

NVF1805748047

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1625 N. French Dr., Hobbs, NM 88240  
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### 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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Buena Vista</b>	Facility Type: <b>Compressor Station</b>

Surface Owner: <b>State of NM</b>	Mineral Owner	BLM Project No.
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>A</b>	<b>32</b>	<b>24N</b>	<b>8W</b>					<b>San Juan</b>

Latitude **36.275278** Longitude **-107.698332**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>159.6 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pressure Relief Valve</b>	Date and Hour of Occurrence: <b>2/7/2018 @ 4:40 AM</b>	Date and Hour of Discovery: <b>2/7/2018 @ 4:40 AM</b>

Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>
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By Whom? <b>NA</b>	Date and Hour: <b>NA</b>
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Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
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If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**A downstream freeze cause excess pressure build up at the station resulting in the activation of the station pressure relief valve.**

Describe Area Affected and Cleanup Action Taken.\*  
**No liquids associated with the release. No soil impacts.**

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>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Kijun Hong</b>	Approval Date: <b>2/27/18</b>	Expiration Date:
Title: <b>Environmental Specialist</b>	Conditions of Approval:	
E-mail Address: <b>kijun.hong@williams.com</b>	Attached <input type="checkbox"/>	
Date: <b>2/13/2018</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

**NVF1805850432**  
**OIL CONS. DIV DIST. 3**  
**FEB 20 2018**

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1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  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.
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**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 Rio Arriba
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Latitude 36.81754° N Longitude 107.49144° W

**NATURE OF RELEASE**

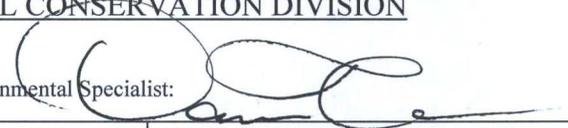
Type of Release Natural Gas	Volume of Release 103.78 MCF	Volume Recovered 0 MCF
Source of Release Emergency Safety Device (ESD)	Date and Hour of Occurrence 12/8/17, 2:00 PM MST	Date and Hour of Discovery 01/30/18, 07:30 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> 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.\*  
Operator was working on the PLC and at that time the valve failed causing an ESD Event that caused the unintentional release of 103.78 MCF of natural gas.

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: <i>Michael Hannan</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Hannan	Approved by Environmental Specialist: 	
Title: Engineer, Sr.	Approval Date: <u>2/27/2018</u>	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 02/13/18	Phone: 505-632-4807	

\* Attach Additional Sheets If Necessary

NVP 1805851260  
OIL CONS. DIV DIST. 3  
FEB 20 2018

JAN 16 2018

Form C-141  
Revised August 8, 2011

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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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Florance 28</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>K</b>	<b>35</b>	<b>30N</b>	<b>8W</b>					<b>San Juan</b>

Latitude **36.76662** Longitude **-107.64681**

**NATURE OF RELEASE**

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>61.4 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>11/30/2017 @ 11:50 AM</b>	Date and Hour of Discovery: <b>11/30/2017 @ 11:50 AM</b>
		<b>Gas loss volume determined 12/12/2017</b>

Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>
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By Whom? <b>NA</b>	Date and Hour: <b>NA</b>
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Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
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If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**Pipeline leak due to failure from corrosion. Leak was isolated and shut it.**

Describe Area Affected and Cleanup Action Taken.\*  
**Clean up completed. Soil was not saturated and did not appear to be wet from liquids. Soil did have an odor associate with it. Soil sample report shows ND. Please see attached documentation for further details.**

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>2/26/18</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>-</b>	Attached <input type="checkbox"/>
Date: <b>1/10/2018</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

NVF 1800537607

## Remediation Excavation and Sampling Form

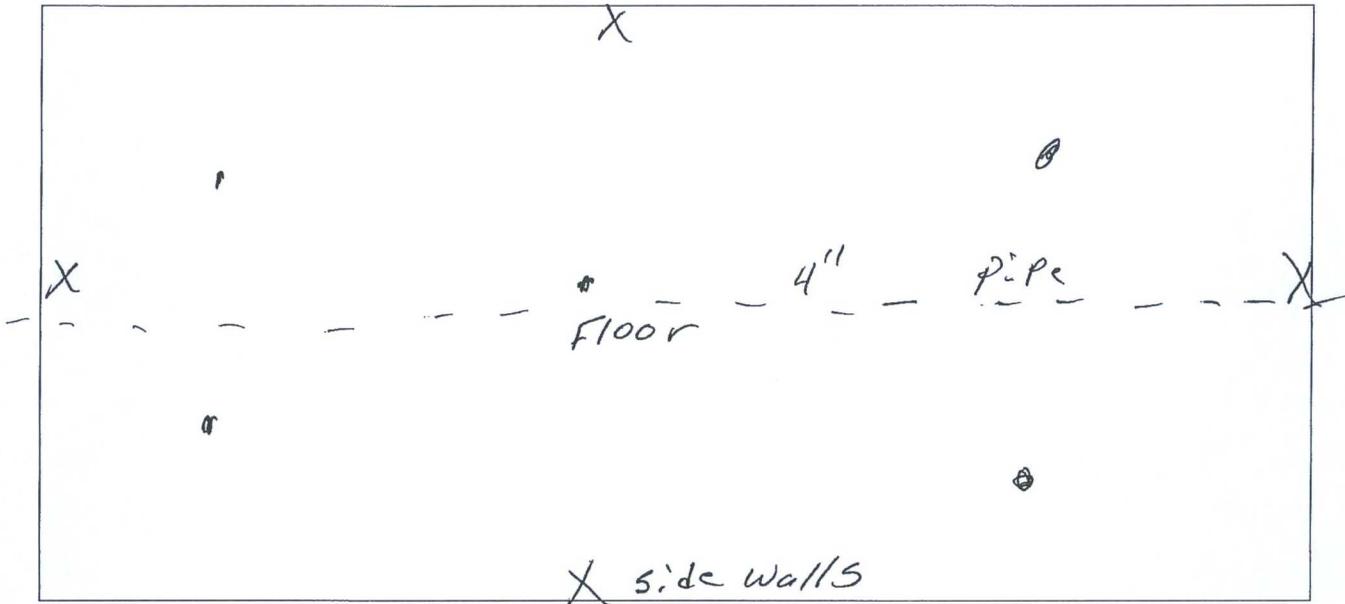
Site Name Florence # 28

**Excavation Dimensions (feet)**

10 Length 10 Width 5 Depth

**Excavation Diagram and Sample Locations**

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



**Sample Information**

OCD Witness Sampling Yes or  No

Agency(s) Representative(s) Corey Smith gave permission to sample

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
<u>Florence #28</u>	<u>12-14-17</u>	<u>Comp.</u>	<u>Sidewall</u>	<u>56.70 ppm</u>
<u>Florence #28</u>	<u>12-14-17</u>	<u>Comp.</u>	<u>Floor</u>	<u>48.90</u>



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)

December 29, 2017

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

RE: Florance 28

OrderNo.: 1712967

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/15/2017 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".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1712967

Date Reported: 12/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Florance #28 Side Walls

Project: Florance 28

Collection Date: 12/14/2017 3:00:00 PM

Lab ID: 1712967-001

Matrix: SOIL

Received Date: 12/15/2017 4:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	12/27/2017 6:17:35 PM	35727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/20/2017 6:40:59 AM	35579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/20/2017 6:40:59 AM	35579
Surr: DNOP	83.3	70-130		%Rec	1	12/20/2017 6:40:59 AM	35579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/19/2017 8:13:44 PM	35569
Surr: BFB	84.5	15-316		%Rec	1	12/19/2017 8:13:44 PM	35569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	12/19/2017 8:13:44 PM	35569
Toluene	ND	0.047		mg/Kg	1	12/19/2017 8:13:44 PM	35569
Ethylbenzene	ND	0.047		mg/Kg	1	12/19/2017 8:13:44 PM	35569
Xylenes, Total	ND	0.094		mg/Kg	1	12/19/2017 8:13:44 PM	35569
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	12/19/2017 8:13:44 PM	35569

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
PQL	Practical Quantitative Limit	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 1712967

Date Reported: 12/29/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Florance #28 Bottom

Project: Florance 28

Collection Date: 12/14/2017 3:10:00 PM

Lab ID: 1712967-002

Matrix: SOIL

Received Date: 12/15/2017 4:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	12/27/2017 6:30:00 PM	35727
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/20/2017 7:08:32 AM	35579
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/20/2017 7:08:32 AM	35579
Surr: DNOP	87.1	70-130		%Rec	1	12/20/2017 7:08:32 AM	35579
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/19/2017 8:37:00 PM	35569
Surr: BFB	87.0	15-316		%Rec	1	12/19/2017 8:37:00 PM	35569
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	12/19/2017 8:37:00 PM	35569
Toluene	ND	0.049		mg/Kg	1	12/19/2017 8:37:00 PM	35569
Ethylbenzene	ND	0.049		mg/Kg	1	12/19/2017 8:37:00 PM	35569
Xylenes, Total	ND	0.097		mg/Kg	1	12/19/2017 8:37:00 PM	35569
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	12/19/2017 8:37:00 PM	35569

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
PQL	Practical Quantitative Limit	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#: 1712967

29-Dec-17

Client: Williams Field Services

Project: Florance 28

Sample ID	<b>MB-35727</b>	SampType:	<b>mblk</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35727</b>	RunNo:	<b>48035</b>					
Prep Date:	<b>12/27/2017</b>	Analysis Date:	<b>12/27/2017</b>	SeqNo:	<b>1540826</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-35727</b>	SampType:	<b>lcs</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35727</b>	RunNo:	<b>48035</b>					
Prep Date:	<b>12/27/2017</b>	Analysis Date:	<b>12/27/2017</b>	SeqNo:	<b>1540827</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	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
- PQL Practical Quantitative Limit
- 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#: 1712967

29-Dec-17

Client: Williams Field Services

Project: Florance 28

Sample ID	<b>LCS-35579</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35579</b>	RunNo:	<b>47874</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533827</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.1	73.2	114			
Surr: DNOP	4.4		5.000		87.7	70	130			

Sample ID	<b>MB-35579</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35579</b>	RunNo:	<b>47874</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533828</b>	Units:	<b>mg/Kg</b>			
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	8.4		10.00		83.6	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
- PQL Practical Quantitative Limit
- 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#: 1712967  
29-Dec-17

**Client:** Williams Field Services  
**Project:** Florance 28

Sample ID <b>MB-35569</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>35569</b>	RunNo: <b>47884</b>								
Prep Date: <b>12/18/2017</b>	Analysis Date: <b>12/19/2017</b>	SeqNo: <b>1533499</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		81.0	15	316			

Sample ID <b>LCS-35569</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>35569</b>	RunNo: <b>47884</b>								
Prep Date: <b>12/18/2017</b>	Analysis Date: <b>12/19/2017</b>	SeqNo: <b>1533501</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	75.9	131			
Surr: BFB	2400		1000		241	15	316			

**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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1712967

29-Dec-17

**Client:** Williams Field Services

**Project:** Florance 28

Sample ID	<b>MB-35569</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>35569</b>	RunNo:	<b>47884</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533535</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	80	120			

Sample ID	<b>LCS-35569</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>35569</b>	RunNo:	<b>47884</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533536</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.5	77.3	128			
Toluene	0.95	0.050	1.000	0	95.0	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.7	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.6	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	<b>1712967-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>Florance #28 Side</b>	Batch ID:	<b>35569</b>	RunNo:	<b>47884</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533550</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9452	0	97.2	80.9	132			
Toluene	0.96	0.047	0.9452	0.01130	100	79.8	136			
Ethylbenzene	0.96	0.047	0.9452	0	102	79.4	140			
Xylenes, Total	3.0	0.095	2.836	0.01582	104	78.5	142			
Surr: 4-Bromofluorobenzene	0.98		0.9452		104	80	120			

Sample ID	<b>1712967-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>Florance #28 Side</b>	Batch ID:	<b>35569</b>	RunNo:	<b>47884</b>					
Prep Date:	<b>12/18/2017</b>	Analysis Date:	<b>12/19/2017</b>	SeqNo:	<b>1533551</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.023	0.9191	0	99.9	80.9	132	0.0962	20	
Toluene	0.95	0.046	0.9191	0.01130	102	79.8	136	0.365	20	
Ethylbenzene	0.96	0.046	0.9191	0	105	79.4	140	0.205	20	
Xylenes, Total	2.9	0.092	2.757	0.01582	106	78.5	142	0.709	20	
Surr: 4-Bromofluorobenzene	0.94		0.9191		102	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
- PQL Practical Quantitative Limit
- 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

**Sample Log-In Check List**

Client Name: WILLIAMS FIELD SERVI

Work Order Number: 1712967

RcptNo: 1

Received By: Anne Thorne

12/15/2017 4:48:00 PM

*Anne Thorne*

Completed By: Michelle Garcia

12/15/2017 2:46:10 PM

*Michelle Garcia*

Reviewed By: IMO

12/15/17

**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° C to 6.0°C Yes  No  NA
6. Sample(s) in proper container(s)? Yes  No
7. Sufficient sample volume for indicated test(s)? Yes  No
8. Are samples (except VOA and ONG) properly preserved? Yes  No
9. Was preservative added to bottles? Yes  No  NA
10. VOA vials have zero headspace? Yes  No  No VOA Vials
11. Were any sample containers received broken? Yes  No
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 °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

**OIL CONS. DIV. DIST. 3**  
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.  
**DEC 12 2017**

Form C-141  
Revised August 8, 2011

### 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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>San Juan Dakota Pig Receiver</b>	Facility Type: <b>Pig Receiver</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
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#### LOCATION OF RELEASE

Unit Letter <b>I</b>	Section <b>11</b>	Township <b>28N</b>	Range <b>11W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.670953** Longitude **-107.966490**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas and Produced Water</b>	Volume of Release: <b>46 MCF 16 bbl Produced Water</b>	Volume Recovered: <b>0 MCF 8 bbl Produced Water</b>
Source of Release: <b>Broken site glass</b>	Date and Hour of Occurrence: <b>11/19/2017 at 10:00 AM</b>	Date and Hour of Discovery: <b>11/19/2017 at 10:00 AM</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>	
By Whom? <b>NA</b>	Date and Hour: <b>NA</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	
If a Watercourse was Impacted, Describe Fully.* <b>NA</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Site glass on the pig receiver scrubber broken. Site glass has been replaced.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>16 bbls of produced water were released due to a broken site glass. 8 bbls were caught by containment and 8 bbls were released to the ground. Clean up is currently in progress.</b>		

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>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Kijun Hong</b>	Approval Date: <b>12/12/2017</b>	Expiration Date:
Title: <b>Environmental Specialist</b>	Conditions of Approval: <b>201518021 Sample Area Chlorides</b>	Attached <input type="checkbox"/>
E-mail Address: <b>kijun.hong@williams.com</b>	Date: <b>12/4/2017</b>	Phone: <b>(505) 632-4475</b>

\* Attach Additional Sheets If Necessary

*Provide 24 hour notification prior to sampling*

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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Milagro Plant</b>	Facility Type: <b>Gas Processing Plant</b>

Surface Owner: <b>Williams</b>	Mineral Owner	BLM Project No.
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**LOCATION OF RELEASE**

Unit Letter <b>O</b>	Section <b>12</b>	Township <b>29N</b>	Range <b>11W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.735966** Longitude **-107.942329**

**NATURE OF RELEASE**

Type of Release: <b>Amine/Water Mixture (50/50)</b>	Volume of Release: <b>300 gal</b>	Volume Recovered: <b>300 gal</b>
Source of Release: <b>Lean Amine Cooler</b>	Date and Hour of Occurrence: <b>12/8/2017 @ 8:00PM</b>	Date and Hour of Discovery: <b>12/8/2017 @ 8:00PM</b>

OIL CONS. DIV DIST. 3  
DEC 20 2017

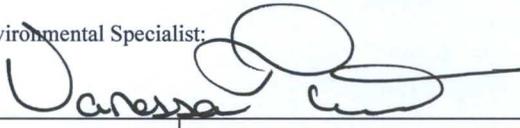
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>
By Whom? <b>NA</b>	Date and Hour: <b>NA</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>

If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**Tube failure due to corrosion/erosion on lean amine cooler bay. All 300 gallons released were captured by concrete containment and recovered.**

Describe Area Affected and Cleanup Action Taken.\*  
**All 300 gallons released were captured by concrete containment and recovered.**

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>1/2/2018</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>12/14/2017</b> Phone: <b>(505) 632-4475</b>	-	

\* Attach Additional Sheets If Necessary

NVF 1800247774

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
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1000 Rio Brazos Road, Aztec, NM 87410  
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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) 632-4606
Facility Name: Chaco Compressor Station	Facility Type: Compressor Station

Surface Owner: BLM	Mineral Owner	API No.
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**LOCATION OF RELEASE**

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

Latitude 36.690708° N Longitude -107.978413° W

**NATURE OF RELEASE**

Type of Release: Natural Gas	Volume of Release: 1118 MCF	Volume Recovered: 0 MCF
Source of Release: Relief Valve	Date and Hour of Occurrence: 12/11/2017 at 4:34 AM MST	Date and Hour of Discovery: 12/11/2017 at 4:34 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 via telephone call, Vanessa Fields/Cory Smith/Whitney Thomas via E-mail	
By Whom? Mitch Morris	Date and Hour: 12/11/2017 4:31 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse: N/A - Natural Gas release	

**OIL CONS. DIV DIST. 3**  
**JAN 02 2018**

If a Watercourse was Impacted, Describe Fully.\*  
Not Applicable - Natural Gas Release

Describe Cause of Problem and Remedial Action Taken.\*  
A PSV on the discharge of Chaco Compressor Station inadvertently opened prior to the designed set point releasing 1118 MCF of natural gas to atmosphere.

- No liquids were associated with the release.
- An internal incident investigation was conducted for this release.

Describe Area Affected and Cleanup Action Taken.\*  
No cleanup is required with a natural gas release.

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:  Printed Name: Mitch Morris  Title: Environmental Specialist  E-mail Address: mitch.morris@williams.com  Date: 12/20/2017 Phone: (505) 632-4708	<b>OIL CONSERVATION DIVISION</b>	
	Approved by Environmental Specialist:	
		
	Approval Date: 1/3/18	Expiration Date:
	Conditions of Approval: _____	Attached <input type="checkbox"/>

NVF1734625545

\* Attach Additional Sheets If Necessary

District I  
1625 N. French Dr., Hobbs, NM 88240  
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811 S. First St., Artesia, NM 88210  
District III  
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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 April 3, 2017

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 1755 Arroyo Dr., Bloomfield, NM 87413	Telephone No. (505) 632-4625
Facility Name 32-8# 3 CDP	Facility Type Compressor Station
Surface Owner Federal BLM	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	9	31N	8W					San Juan

Latitude 37.0704 Longitude -107.6869

**NATURE OF RELEASE**

Type of Release Natural Gas	Volume of Release 1029 MCF	Volume Recovered None
Source of Release Rupture Disc	Date and Hour of Occurrence 12/2/2017 11:45am	Date and Hour of Discovery 12/2/2017 12/2/2017 11:45am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Email to Cory Smith and Vanessa Fields, from Matt Webre 12/2/2017 5:01pm	
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.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Rupture disc failure. Gas loss 1029 mcf over 405 minutes. Rupture disc was installed approx. six months prior during a compressor upgrade. The release occurred from a 1 inch at 125 psig the rupture disc was rated for 200 psig. Possible bad faulty rupture disc installed.

Describe Area Affected and Cleanup Action Taken.\*  
There were no liquids associated with this release. No cleanup actions necessary.

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>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Monica Sandoval	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Environmental Specialist	Approval Date: 1/3/18	Expiration Date:
E-mail Address: monica.sandoval@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/19/2017	Phone: (505) 632-4625	

\* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

JAN 02 2018

NF1733840781

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

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Florance 28</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
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**LOCATION OF RELEASE**

Unit Letter <b>K</b>	Section <b>35</b>	Township <b>30N</b>	Range <b>8W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.76662** Longitude **-107.64681**

**NATURE OF RELEASE**

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>61.4 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>11/30/2017 @ 11:50 AM</b>	Date and Hour of Discovery: <b>11/30/2017 @ 11:50 AM</b>  <b>Gas loss volume determined 12/12/2017</b>

Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>
--	----------------------------

By Whom? <b>NA</b>	Date and Hour: <b>NA</b>
--------------------	--------------------------

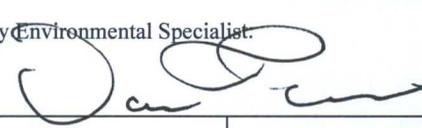
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
---	---

If a Watercourse was Impacted, Describe Fully.* <b>NA</b>
---

Describe Cause of Problem and Remedial Action Taken.* <b>Investigation pending. Leak was isolated and shut it.</b>	<b>DEC 20 2017</b>
---	--------------------

Describe Area Affected and Cleanup Action Taken.* <b>Clean up in progress.</b>	<b>OIL CONS. DIV DIST. 3</b>
---	------------------------------

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>1/5/2018</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: <b>Sample Area 8015/8021</b>	Attached <input type="checkbox"/>
Date: <b>12/14/2017</b>	Phone: <b>(505) 632-4475</b>	

\* Attach Additional Sheets If Necessary

**NVF 1800537607**

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

OIL CONS. DIV DIST. 3  
Form C-141  
Revised August 8, 2011  
JAN 19 2018  
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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>32-9 CDP</b>	Facility Type: <b>CDP</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
---------------------------	---------------	-----------------

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>L</b>	<b>14</b>	<b>31N</b>	<b>10W</b>					<b>San Juan</b>

Latitude **36.895504** Longitude **-107.861414**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>2,000 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>1/2/2018 @ 7:30 AM</b>	Date and Hour of Discovery: <b>1/2/2018 @ 7:30 AM</b>
		<b>Gas loss volume determined 1/3/2018</b>

Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith</b>
--	------------------------------------

By Whom? <b>Kijun Hong</b>	Date and Hour: <b>1/3/2018@12:40PM</b>
----------------------------	--

Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
---	---

If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**Gas release due to stuck dump valve on a dehy. Valve was maintained.**

Describe Area Affected and Cleanup Action Taken.\*  
**No liquids associated with the release. No soil impacts.**

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>1/22/2018</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>1/12/2018</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

**NVF 180223549**

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

OIL CONS. DIV DIST. 3 Form C-141  
Revised August 8, 2011  
JAN 19 2018  
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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Buena Vista</b>	Facility Type: <b>Compressor Station</b>

Surface Owner: <b>State of NM</b>	Mineral Owner	BLM Project No.
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#### LOCATION OF RELEASE

Unit Letter <b>A</b>	Section <b>32</b>	Township <b>24N</b>	Range <b>8W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	--------------------	---------------	------------------	---------------	----------------	---------------------------

Latitude **36.275278** Longitude **-107.698332**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>1,200 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>1/9/2018 @ 3:00 PM</b>	Date and Hour of Discovery: <b>1/10/2018 @ 4:00 PM</b>

Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith</b>
--	------------------------------------

By Whom? <b>Kijun Hong</b>	Date and Hour: <b>1/10/2018@4:07PM</b>
----------------------------	--

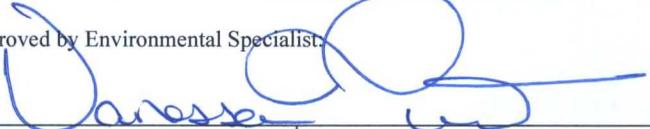
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
---	---

If a Watercourse was Impacted, Describe Fully.\* **NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**A ball valve was discovered to be in a partially open position, venting fuel gas to the condensate storage tank. Valve was shut all the way.**

Describe Area Affected and Cleanup Action Taken.\*  
**No liquids associated with the release. No soil impacts.**

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>1/22/2018</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>1/12/2018</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

NVF 18022 36102

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

Form C-141  
Revised April 3, 2017

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	AARON GALER
Address	1755 ARROYO DRIVE	Telephone No.	801-244-1219
Facility Name	TRUNK S/TRUNK D/LATERAL F-16	Facility Type	PIPELINE

Surface Owner	PRIVATE	Mineral Owner		API No.	
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	13	29N	6W					RIO ARRIBA

Latitude 36.72028°N Longitude -107.41937°W

**NATURE OF RELEASE**

Type of Release	PETROLEUM HYDROCARBONS	Volume of Release	UNKNOWN	Volume Recovered	562 CY OF IMPACTED SOIL
Source of Release	HISTORICAL OPERATIONS	Date and Hour of Occurrence	UNKNOWN	Date and Hour of Discovery	JUNE 27, 2017
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? CORY SMITH AND VANESSA FIELDS (NMOCD)			
By Whom?	MICHAEL HANNON	Date and Hour 6/29/17 08:42AM (CORY SMITH - VOICE MESSAGE) 6/29/17 08:43AM (VANESSA FIELDS - VOICE MESSAGE)			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>OIL CONS. DIV DIST. 3</b>			
If a Watercourse was Impacted, Describe Fully.* N/A		<b>DEC 01 2017</b>			

**Describe Cause of Problem and Remedial Action Taken.\***

DURING A RIGHT-OF-WAY SURVEY, WILLIAMS OPERATIONS DISCOVERED AN AREA IMPACTED BY HISTORICAL OPERATIONS. REMEDIATION WAS UNDERTAKEN FROM JUNE 27, 2017 THROUGH JULY 10, 2017. 562 CUBIC YARDS OF IMPACTED SOIL WAS EXCAVATED AND DISPOSED OF AT IEI LANDFILL IN FARMINGTON, NM. IMMEDIATE NMOCD NOTIFICATION OCCURRED ONCE IT BECAME APPARENT THAT GREATER THAN 60 CUBIC YARDS OF SOIL WOULD BE SENT FOR DISPOSAL.

**Describe Area Affected and Cleanup Action Taken.\***

A CLEANUP CREW WAS MOBILIZED TO THE SITE FOR REMEDIATION. AFTER EXCAVATING 562 CUBIC YARDS OF IMPACTED SOIL, THE EXCAVATION WAS FENCED OFF IN COORDINATION WITH THE PROPERTY OWNER. ON AUGUST 2, 2017, WILLIAMS RECEIVED AN EMAIL REQUEST FROM OCD FOR SUBMITTAL OF A DELINEATION REPORT AND CORRECTIVE ACTION PLAN TO OCD BY SEPTEMBER 2, 2017. A DELINEATION PLAN AND C-141 WAS SUBMITTED TO OCD ON SEPTEMBER 5, 2017. THE PLAN WAS APPROVED BY OCD ON SEPTEMBER 11, 2017 AND THE DELINEATION WORK WAS COMPLETED ON OCTOBER 23, 2017.

FOUR SOIL BORINGS WERE ADVANCED AROUND THE CURRENT EXCAVATION. NONE OF THE LAB RESULTS FROM THE SAMPLES COLLECTED EXCEED OCD STANDARDS. CONFIRMATION SAMPLING OF THE EXCAVATION SIDEWALLS AND BOTTOM WAS COMPLETED ON NOVEMBER 9, 2017 UNDER SUPERVISION OF OCD. NONE OF THE LAB RESULTS FROM THE SAMPLES COLLECTED EXCEED OCD STANDARDS. NO ADDITIONAL CLEANUP ACTION IS NECESSARY AT THIS SITE.

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: Aaron Galer OIL CONSERVATION DIVISION

Printed Name: AARON GALER	Approved by Environmental Specialist: 	
Title: ENVIRONMENTAL SPECIALIST	Approval Date: 12/7/2017	Expiration Date:
E-mail Address: <a href="mailto:AARON.GALER@WILLIAMS.COM">AARON.GALER@WILLIAMS.COM</a>	Conditions of Approval: —	Attached <input type="checkbox"/>
Date: NOVEMBER 30, 2017	Phone: 801-244-1219	

\* Attach Additional Sheets If Necessary

NCS1724152886

November 29, 2017

Ms. Vanessa Fields  
Environmental Specialist  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**RE: Soil Boring Delineation and Excavation Confirmation Sampling Report  
Trunk S Loop Pipeline  
Williams Four Corners LLC  
Rio Arriba County, New Mexico**

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), conducted a subsurface investigation consisting of soil borings and excavation confirmation soil sampling at the Trunk S Loop pipeline (Site) located in the southwest quarter of the southwest quarter of Section 13 within Township 29 North and Range 6 West in the San Juan Basin in Rio Arriba County, New Mexico (Figure 1).

### **Background**

While conducting a right-of-way survey through an existing pipeline corridor, Williams personnel discovered an earthen depression suspected of being a historical operations pit with potentially hydrocarbon impacted soil. Williams reported the encountered impact to the New Mexico Oil Conservation Division (NMOCD) on an initial *C-141 Release Notification and Corrective Action Form*. Williams then excavated approximately 562 cubic yards of impacted soil and transported the soil for disposal to IEI landfill in Farmington, New Mexico, between June 27 and July 10, 2017.

### **Soil Sampling Activities and Results**

Prior to collecting excavation sidewall confirmation soil samples, Williams conducted a subsurface soil investigation to determine if impacts extended beyond the current excavation. Four soil borings (SB01 through SB04) were advanced using hollow-stem auger drilling techniques. Soil boring locations are depicted on Figure 2. Soil samples were logged by an LTE geologist and described using the Unified Soil Classification System to delineate hydrocarbon impacts. The intervals from immediately beneath the ground surface and then every five feet thereafter were screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID). Soil samples with the highest PID readings and a bottom hole sample were collected from each borehole. Samples were submitted under strict chain-of-custody to Hall Environmental Analysis Laboratory (Hall) of Albuquerque, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total



xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B, and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by EPA Method 8015.

Soil samples collected from each boring were predominantly composed of light brown, fine grained sandstone. No visual staining, hydrocarbon odors, and/or elevated field screening results were observed in any of the samples logged, except in soil boring SB04 where some slight odor and elevated PID readings were observed from 10 feet to 32 feet below ground surface. The soil boring logs are included as Attachment 1.

Laboratory analytical results from the soil samples did not exhibit any BTEX or total TPH concentrations that exceeded NMOCD standards. Table 1 lists the laboratory results and the complete laboratory reports are included in Attachment 2.

Following receipt of the soil boring analytical results, it was determined that the extent of the impacts was defined laterally and vertically. As impacts were confined to the extent of the current excavation, confirmation soil samples were collected. A trackhoe excavator was used to collect 5-point composite soil samples from the sidewalls and base of the excavation under the supervision of the NMOCD. A total of six sidewall and two floor soil samples were collected and submitted to Hall for analysis of BTEX and total TPH. Sample locations are depicted on Figure 2. Excavation confirmation soil analytical results indicate that no BTEX or total TPH concentrations exceed NMOCD standards. Results are presented in Table 1 and complete laboratory analytical reports are included as Attachment 2.

## **Conclusions**

Four soil borings were advanced around the current excavation to define the lateral and vertical extent of impacts. No impact to soil, as potentially evidenced by odor, discoloration, and/or elevated field screening results, was observed except in soil boring SB04. Laboratory analytical results indicated that the soil boring samples collected did not contain concentrations of BTEX or total TPH that exceed NMOCD standards. Groundwater was not encountered in any borehole.

Excavation confirmation soil samples were collected from the sidewalls and base of the current excavation extent. A total of six sidewall and two floor soil samples, each comprised of five sample aliquots, were collected by a trackhoe excavator in the presence of a NMOCD representative. Laboratory analytical results indicated that the confirmation soil samples collected did not contain concentrations of BTEX or total TPH that exceeded NMOCD standards.

As excavation confirmation soil samples do not exhibit any BTEX or total TPH concentrations that exceed NMOCD standards, Williams has successfully remediated the historical impacts to soil. Williams requests approval to backfill the excavation and that a No Further Action status be granted by the NMOCD for closure of this Site.





LTE appreciates the opportunity to provide this report to the NMOCD. If you have any questions or comments regarding this report, do not hesitate to contact us at (970) 385-1096 or via email at [dburns@ltenv.com](mailto:dburns@ltenv.com) or [aager@ltenv.com](mailto:aager@ltenv.com).

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'D. Burns'.

Danny Burns  
Project Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

Ashley Ager, P.G.  
Senior Geologist

#### Attachments

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Table 1 – Soil Analytical Results
- Attachment 1 – Soil Boring Logs
- Attachment 2 – Laboratory Analytical Reports



**FIGURES**



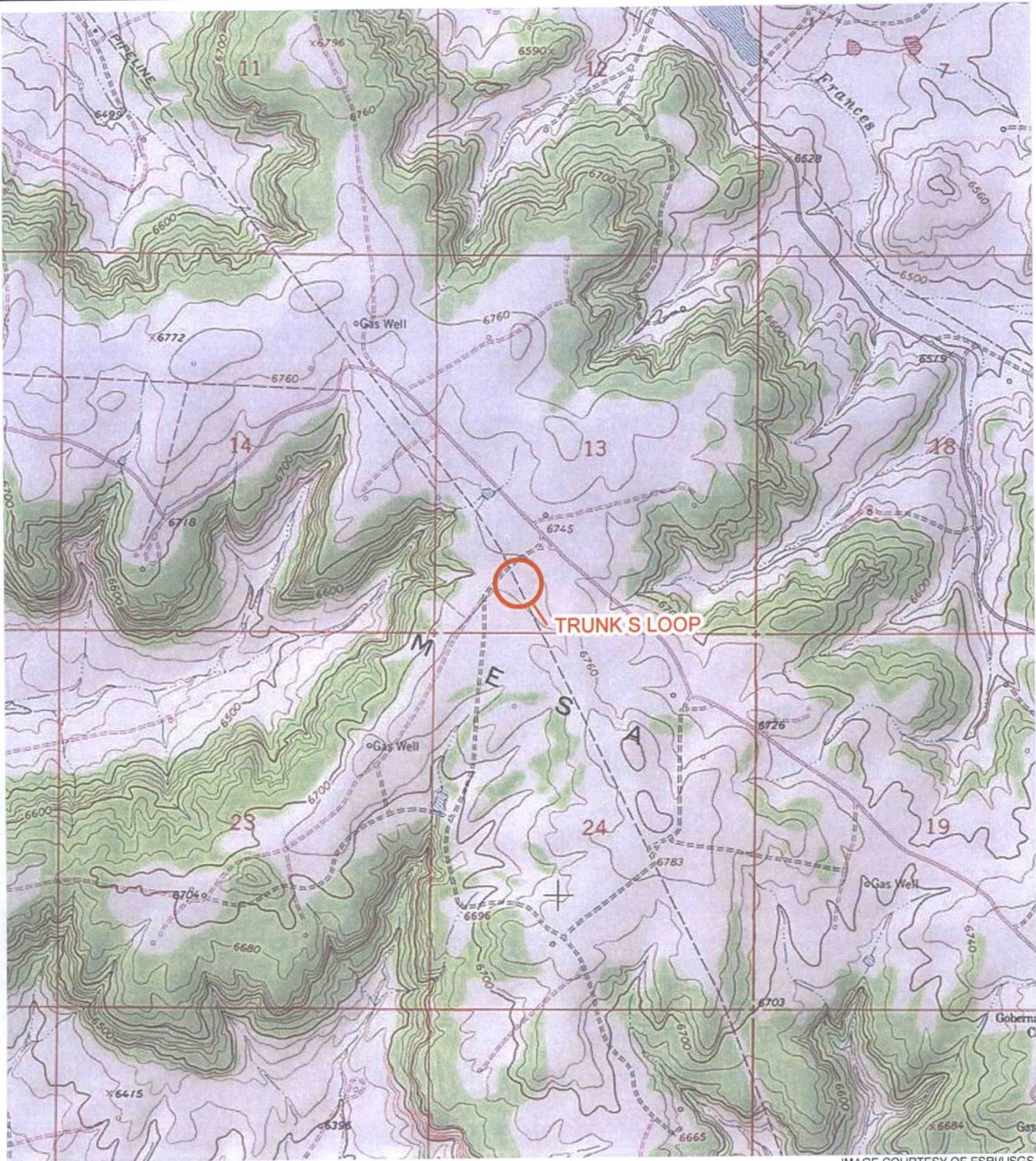
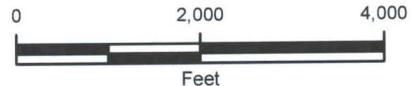


IMAGE COURTESY OF ESRI/USGS

**LEGEND**

 SITE LOCATION



**FIGURE 1**  
**SITE LOCATION MAP**  
**TRUNK S LOOP**  
**RIO ARRIBA COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS LLC**



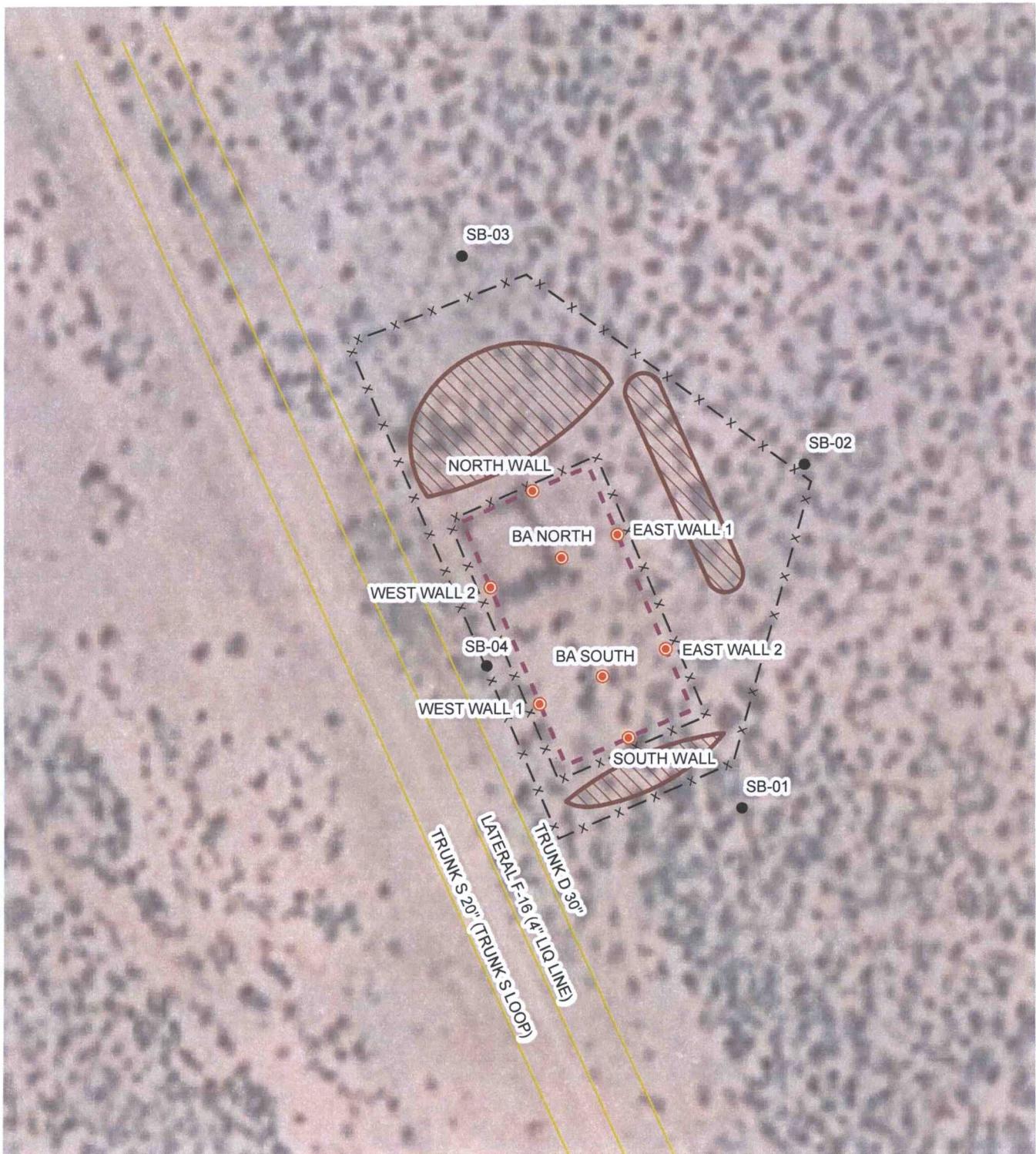
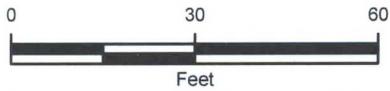


IMAGE COURTESY OF ESRI

**LEGEND**

- CONFIRMATION SOIL SAMPLE
- SOIL BORING
- ESTIMATED PIPELINE LOCATION
- x — x FENCE
- - - ESTIMATED EXCAVATION EXTENT
- ▨ SPOIL PILE



**FIGURE 2**  
**SITE MAP**  
**TRUNK S LOOP**  
**RIO ARRIBA COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS, LLC**



P:\Williams Four Corners\GIS\MXD\034017012\_TRUNK S LOOP\034017012\_TRUNK S LOOP\_FIG02\_SITE\_171108.mxd

**TABLE**



**TABLE 1  
SOIL ANALYTICAL RESULTS**

**TRUNK S LOOP  
RIO ARRIBA COUNTY, NEW MEXICO  
WILLIAMS FOUR CORNERS LLC**

Sample ID	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)
<b>Soil Boring - Delineation Samples</b>											
SB01 @ 5'	10/23/2017	19.8	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.9	<49	<63.6
SB01 @ 20'	10/23/2017	8.3	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.4	<47	<61.2
SB02 @ 5'	10/23/2017	7.5	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<10	<50	<64.7
SB02 @ 15'	10/23/2017	5.5	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	13	<48	13
SB03 @ 10'	10/23/2017	9.4	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	<9.8	<49	<63.5
SB03 @ 15'	10/23/2017	8.9	<0.024	<0.049	<0.049	<0.097	<0.219	<4.9	12	<50	12
SB04 @ 10'	10/26/2017	1,297	<0.12	1.5	0.95	12	14.45	270	53	72	395
SB04 @ 30'	10/26/2017	1,130	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.7	<48	<62.5
<b>Excavation Confirmation Samples</b>											
BA North	11/9/2017	1,953	<0.12	1.7	0.67	10	12.37	250	93	130	473
BA South	11/9/2017	1,924	<0.12	1.7	0.55	7.3	9.55	190	230	220	640
South Wall	11/9/2017	215	<0.024	<0.047	<0.047	<0.095	<0.213	<4.7	<9.2	<46	<59.9
North Wall	11/9/2017	454	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	19	<47	19
East Wall 1 (North)	11/9/2017	15	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<10	<51	<65.8
East Wall 2 (South)	11/9/2017	243	<0.12	1.1	0.27	5.1	6.47	110	23	<50	133
West Wall 1 (South)	11/9/2017	1,359	<0.024	0.2	0.11	2.1	2.41	31	59	350	440
West Wall 2 (North)	11/9/2017	755	<0.12	0.24	<0.23	2.5	2.74	210	77	420	707
<b>NMOCD Closure Criteria</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>

**NOTES:**

BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes analyzed by EPA method 8021B

DRO - diesel range organics analyzed by EPA Modified Method 8015M/D

GRO - gasoline range organics analyzed by EPA Modified Method 8015D

mg/kg - milligrams per kilogram

MRO - motor oil range organics analyzed by EPA Modified Method 8015M/D

NMOCD - New Mexico Oil Conservation Division ppm - parts per million

ND - Not Detected

NE - not established

TPH- total petroleum hydrocarbons

< - indicates result is less than the stated laboratory reporting limit

**BOLD** indicates result exceeds applicable standard



**ATTACHMENT 1**  
**SOIL BORING LOGS**





Compliance « Engineering » Remediation  
 LT Environmental, Inc.  
 848 E. 2nd Ave  
 Durango, Colorado 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: **SB-01** Project: **Trunk S Loop**

Date: **10/23/17** Project Number: **034017012**

Logged By: **Eric Carroll  
Daniel Burns** Drilled By: **Geomat Engineering**

Elevation: \_\_\_\_\_ Detector: **PID** Drilling Method: **Hollow Stem Auger** Sampling Method: **Continuous**

Gravel Pack: **10-20 Silica Sand** Seal: **Bentonite Chips** Grout: **Bentonite Slurry**

Casing Type: **Schedule 40 PVC** Diameter: **2"** Length: **NA** Hole Diameter: **2"** Depth to Liquid: **NA**

Screen Type: **Schedule 40 PVC** Slot: **0.010"** Diameter: **2"** Length: **NA** Total Depth: **20'** Depth to Water: **NA**

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	NO		0			SM-SW	med/fn sand, some silt, lt brown No staining/odor	
					1					
					2					
					3	1	100%			
					4					
	Dry	19.8	NO		5			SM/SW	lt brownish red, med/fn sand, some silt, NO staining/odor	
					6					
					7				switched to split spoon due to hard soil.	
					8					
					9					
					10					
	Dry	16.8	NO		11	2	1.5'	SM/SW	lt. brown, fn sand, trace silt NO stain/odor	
					12					
					13					
					14					
					15					



Compliance « Engineering » Remediation  
 LT Environmental, Inc.

Boring/Well #

Project:

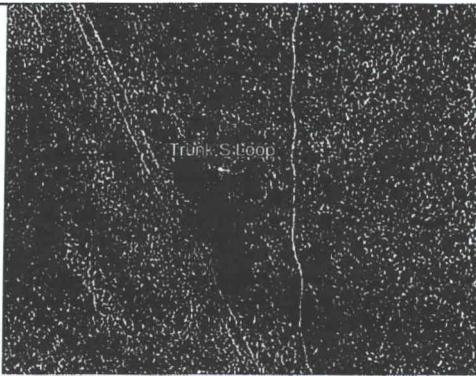
Trunk S Loop

Project #

034017012

Date

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	DRY	14.9	NO		15			SM/ SW	lt brown, fn sand, trace silt no staining/odor	
				16	3	1.5'				
				17						
	DRY	8.3	NO		18				lt brown, fn sand, trace silt/clay no staining/odor	
				19						
				20						
				21	4	3'				
				22						
					23					
					24				Stopped due to	
					25				Resistance	
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					



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 848 E. 2nd Ave  
 Durango, Colorado 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: <b>SB-02</b>	Project: Trunk S Loop
Date: <b>10/23/2017</b>	Project Number: 034017012
Logged By: <b>Eric Carroll Daniel Buras</b>	Drilled By: Geomat Engineering
Elevation:	Detector: PID
Drilling Method: Hollow Stem Auger	Sampling Method: Continuous
Gravel Pack: <del>10-20 Silica Sand</del>	Seal: <del>Bentonite Chips</del>
Casing Type: Schedule 40 PVC	Grout: <del>Bentonite Slurry</del>
Screen Type: Schedule 40 PVC	Slot: 0.010"
Diameter: 2"	Length: NA
Hole Diameter: 2"	Depth to Liquid: NA
Diameter: 2"	Length: NA
Total Depth: 15'	Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	DRY	0.0	NO		0			SM/ SW	lt brown, med fn sand, some silt organic material NO staining/odor	
					1					
					2	1				
					3					
					4					
	DRY	7.5	NO		5			SM/ SW	lt brown fn sand, some silt NO staining/odor	
					6					
					7				Switched to SS due to hard 90's	
					8					
					9					
					10					
	DRY	5.8	NO		11	2		SM/ SW	lt brown some rust, fn sand trace silt NO staining/odor	
					12					
					13					
					14					
					15					



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**LT Environmental, Inc.**

Boring/Well #

Project:

Trunk S Loop

Project #

034017012

Date

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion	
	DRY	5.5	NO		15	3			very lt. brown fn sand, gravel NO staining / odor Stopped due to Resistance		
					16						
					17						
					18						
					19						
					20						
					21						
					22						
					23						
					24						
					25						
					26						
					27						
					28						
					29						
					30						
					31						
					32						
					33						
					34						
					35						
					36						
					37						



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 Durango, Colorado 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: <b>SB-03</b>	Project: <b>Trunk S Loop</b>
Date: <b>10/23/17</b>	Project Number: <b>034017012</b>
Logged By: <b>Eric Carroll Daniel Burns</b>	Drilled By: <b>Geomat Engineering</b>

Elevation:	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem Auger</b>	Sampling Method: <b>Continuous</b>
------------	-------------------------	--	---------------------------------------

Gravel Pack: <b>10-20 Silica Sand</b>	Seal: <b>Bentonite Chips</b>	Grout: <b>Bentonite Slurry</b>
--	---------------------------------	-----------------------------------

Casing Type: <b>Schedule 40 PVC</b>	Diameter: <b>2"</b>	Length:	Hole Diameter:	Depth to Liquid:
--	------------------------	---------	----------------	------------------

Screen Type: <b>Schedule 40 PVC</b>	Slot: <b>0.010"</b>	Diameter: <b>2"</b>	Length:	Total Depth:	Depth to Water:
--	------------------------	------------------------	---------	--------------	-----------------

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	<b>DRY</b>	<b>0.0</b>	<b>NO</b>		0				lt. brown med/fn sand trace silt	
					1				NO stain/odor some organic material	
					2	<b>1</b>				
					3					
					4					
	<b>DRY</b>	<b>2.5</b>	<b>NO</b>		5				lt. brown fn sand, trace silt	
					6				NO stain/odor	
					7				Switch to SS	
					8					
					9					
					10					
	<b>DRY</b>	<b>9.4</b>	<b>NO</b>		11	<b>2</b>			lt brown some rust, fn sand	
					12				trace silt	
					13				NO stain/odor	
					14					
					15					



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 LT Environmental, Inc.

Boring/Well #

Project:

Trunk S Loop

Project #

034017012

Date

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	dry	8.9	NO		15	3		SW/SM	10. brown fn sand traces silt NO stain/odor	
					16					
					17					
					18				Stopped due to Resistance	
					19					
					20					
					21					
					22					
					23					
					24					
					25					
					26					
					27					
					28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
					36					
					37					



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 Durango, Colorado 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: <b>SB-04</b>	Project: Trunk S Loop
Date: <b>10/26/17</b>	Project Number: 034017012
Logged By: <b>ERIC CARROLL DANIEL BURNS</b>	Drilled By: Geomat Engineering

Elevation:	Detector: <b>PID</b>	Drilling Method: Hollow Stem Auger	Sampling Method: Continuous
Gravel Pack: <b>10-20 Silica Sand</b>	Seal: Bentonite Chips	Grout: Bentonite Slurry	
Casing Type: <del>Schedule 40 PVC</del>	Diameter: 2"	Length: <b>NA</b>	Hole Diameter: Depth to Liquid:
Screen Type: <del>Schedule 40 PVC</del>	Slot: <b>0.010"</b>	Diameter: 2"	Length: <b>NA</b>
		Total Depth:	Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	NO		0				lt red brown, med/fn sand, some silts	
					1			SM-SW	NO stain/odor	
					2					
					3	1				
					4					
	DRY	1.9	NO		5			SM-SW	lt brown, fn sand, trace silts NO stain/odor	
					6					
					7				Switched to split spoon	
					8					
					9					
					10					
	DRY	1297	NO		11	2	3'	SM-SW	lt brown, fn sand, trace silts Slight odor NO staining	
					12					
					13					
					14					
					15					



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Boring/Well #

Project:

Trunk S Loop

Project #

034017012

Date

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	DRY	1076	NO		15				lt brown, fn sand, trace silts	
					16	3	1'		Strong odor NO Staining	
					17					
					18					
					19					
					20					
	DRY	1237	NO		21	4	2'		Brown, fn sand, trace silts	
					22				Slight odor NO Staining	
					23					
					24					
					25					
	DRY	182.9	NO		26	5	2'		lt brown, fn sand, w/gravel	
					27				Odor NO Staining	
					28					
					29					
					30					
	DRY	1136	NO		31	6			lt brown fine sand w/gravel	
					32				NO Staining, Strong odor	
					33					
					34				Stopped due to refusal	
					35					
					36					
					37					

**ATTACHMENT 2**  
**LABORATORY ANALYTICAL REPORTS**





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)

November 02, 2017

Aaron Galer  
Williams Four Corners  
188 CR 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Trunk S Deliniation

OrderNo.: 1710D06

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/25/2017 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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1710D06

Date Reported: 11/2/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: SB-01@5'

Project: Trunk S Deliniation

Collection Date: 10/23/2017 10:40:00 AM

Lab ID: 1710D06-001

Matrix: SOIL

Received Date: 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/30/2017 10:31:46 PM	34670
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/30/2017 10:31:46 PM	34670
Surr: DNOP	78.2	70-130		%Rec	1	10/30/2017 10:31:46 PM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/28/2017 1:15:06 AM	34651
Surr: BFB	84.9	15-316		%Rec	1	10/28/2017 1:15:06 AM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	10/28/2017 1:15:06 AM	34651
Toluene	ND	0.047		mg/Kg	1	10/28/2017 1:15:06 AM	34651
Ethylbenzene	ND	0.047		mg/Kg	1	10/28/2017 1:15:06 AM	34651
Xylenes, Total	ND	0.094		mg/Kg	1	10/28/2017 1:15:06 AM	34651
Surr: 4-Bromofluorobenzene	96.8	80-120		%Rec	1	10/28/2017 1:15:06 AM	34651

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
	PQL Practical Quantitative Limit	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 **1710D06**Date Reported: **11/2/2017****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Four Corners**Client Sample ID:** SB-01@20'**Project:** Trunk S Delineation**Collection Date:** 10/23/2017 11:00:00 AM**Lab ID:** 1710D06-002**Matrix:** SOIL**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/30/2017 11:37:47 PM	34670
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/30/2017 11:37:47 PM	34670
Surr: DNOP	70.2	70-130		%Rec	1	10/30/2017 11:37:47 PM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/28/2017 10:45:00 AM	34651
Surr: BFB	84.0	15-316		%Rec	1	10/28/2017 10:45:00 AM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	10/28/2017 10:45:00 AM	34651
Toluene	ND	0.048		mg/Kg	1	10/28/2017 10:45:00 AM	34651
Ethylbenzene	ND	0.048		mg/Kg	1	10/28/2017 10:45:00 AM	34651
Xylenes, Total	ND	0.096		mg/Kg	1	10/28/2017 10:45:00 AM	34651
Surr: 4-Bromofluorobenzene	96.5	80-120		%Rec	1	10/28/2017 10:45:00 AM	34651

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
PQL	Practical Quantitative Limit	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 1710D06

Date Reported: 11/2/2017

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Williams Four Corners**Client Sample ID:** SB-02@5'**Project:** Trunk S Deliniation**Collection Date:** 10/23/2017 11:20:00 AM**Lab ID:** 1710D06-003**Matrix:** SOIL**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/30/2017 11:59:37 PM	34670
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/30/2017 11:59:37 PM	34670
Surr: DNOP	71.3	70-130		%Rec	1	10/30/2017 11:59:37 PM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/28/2017 12:42:18 PM	34651
Surr: BFB	84.2	15-316		%Rec	1	10/28/2017 12:42:18 PM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	10/28/2017 12:42:18 PM	34651
Toluene	ND	0.047		mg/Kg	1	10/28/2017 12:42:18 PM	34651
Ethylbenzene	ND	0.047		mg/Kg	1	10/28/2017 12:42:18 PM	34651
Xylenes, Total	ND	0.094		mg/Kg	1	10/28/2017 12:42:18 PM	34651
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	10/28/2017 12:42:18 PM	34651

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
	PQL	Practical Quantitative Limit	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 1710D06

Date Reported: 11/2/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** SB-02@15'

**Project:** Trunk S Deliniation

**Collection Date:** 10/23/2017 11:45:00 AM

**Lab ID:** 1710D06-004

**Matrix:** SOIL

**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	13	9.7		mg/Kg	1	10/31/2017 12:21:33 AM	34670
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/31/2017 12:21:33 AM	34670
Surr: DNOP	77.4	70-130		%Rec	1	10/31/2017 12:21:33 AM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/28/2017 1:05:43 PM	34651
Surr: BFB	85.4	15-316		%Rec	1	10/28/2017 1:05:43 PM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	10/28/2017 1:05:43 PM	34651
Toluene	ND	0.048		mg/Kg	1	10/28/2017 1:05:43 PM	34651
Ethylbenzene	ND	0.048		mg/Kg	1	10/28/2017 1:05:43 PM	34651
Xylenes, Total	ND	0.097		mg/Kg	1	10/28/2017 1:05:43 PM	34651
Surr: 4-Bromofluorobenzene	96.4	80-120		%Rec	1	10/28/2017 1:05:43 PM	34651

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
	PQL Practical Quantitative Limit	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 1710D06

Date Reported: 11/2/2017

**CLIENT:** Williams Four Corners

**Client Sample ID:** SB-03@10'

**Project:** Trunk S Delineation

**Collection Date:** 10/23/2017 12:10:00 PM

**Lab ID:** 1710D06-005

**Matrix:** SOIL

**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/31/2017 12:43:21 AM	34670
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/31/2017 12:43:21 AM	34670
Surr: DNOP	72.0	70-130		%Rec	1	10/31/2017 12:43:21 AM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/28/2017 1:29:10 PM	34651
Surr: BFB	82.8	15-316		%Rec	1	10/28/2017 1:29:10 PM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	10/28/2017 1:29:10 PM	34651
Toluene	ND	0.047		mg/Kg	1	10/28/2017 1:29:10 PM	34651
Ethylbenzene	ND	0.047		mg/Kg	1	10/28/2017 1:29:10 PM	34651
Xylenes, Total	ND	0.094		mg/Kg	1	10/28/2017 1:29:10 PM	34651
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	10/28/2017 1:29:10 PM	34651

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
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** SB-03@15'

**Project:** Trunk S Deliniation

**Collection Date:** 10/23/2017 12:30:00 PM

**Lab ID:** 1710D06-006

**Matrix:** SOIL

**Received Date:** 10/25/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	12	10		mg/Kg	1	10/31/2017 1:05:16 AM	34670
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/31/2017 1:05:16 AM	34670
Surr: DNOP	80.3	70-130		%Rec	1	10/31/2017 1:05:16 AM	34670
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/28/2017 1:52:34 PM	34651
Surr: BFB	82.8	15-316		%Rec	1	10/28/2017 1:52:34 PM	34651
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	10/28/2017 1:52:34 PM	34651
Toluene	ND	0.049		mg/Kg	1	10/28/2017 1:52:34 PM	34651
Ethylbenzene	ND	0.049		mg/Kg	1	10/28/2017 1:52:34 PM	34651
Xylenes, Total	ND	0.097		mg/Kg	1	10/28/2017 1:52:34 PM	34651
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	10/28/2017 1:52:34 PM	34651

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
	PQL Practical Quantitative Limit	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#: 1710D06

02-Nov-17

**Client:** Williams Four Corners

**Project:** Trunk S Delineation

Sample ID	<b>LCS-34670</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34670</b>	RunNo:	<b>46727</b>					
Prep Date:	<b>10/27/2017</b>	Analysis Date:	<b>10/30/2017</b>	SeqNo:	<b>1489124</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.7	73.2	114			
Surr: DNOP	4.4		5.000		87.5	70	130			

Sample ID	<b>MB-34670</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34670</b>	RunNo:	<b>46727</b>					
Prep Date:	<b>10/27/2017</b>	Analysis Date:	<b>10/30/2017</b>	SeqNo:	<b>1489125</b>	Units:	<b>mg/Kg</b>			
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	8.5		10.00		84.8	70	130			

Sample ID	<b>1710D06-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>SB-01@5'</b>	Batch ID:	<b>34670</b>	RunNo:	<b>46727</b>					
Prep Date:	<b>10/27/2017</b>	Analysis Date:	<b>10/30/2017</b>	SeqNo:	<b>1490579</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.60	0	101	55.8	122			
Surr: DNOP	3.7		4.960		75.3	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1710D06  
02-Nov-17

Client: Williams Four Corners  
Project: Trunk S Delination

Sample ID	<b>MB-34651</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488208</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.2	15	316			

Sample ID	<b>LCS-34651</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488209</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	75.9	131			
Surr: BFB	990		1000		99.0	15	316			

Sample ID	<b>1710D06-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>SB-01@20'</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488210</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.7	23.28	0	125	77.8	128			
Surr: BFB	930		931.1		99.9	15	316			

Sample ID	<b>1710D06-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>SB-01@20'</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488211</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	23.97	0	112	77.8	128	7.80	20	
Surr: BFB	960		958.8		100	15	316	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
- PQL Practical Quantitative Limit
- 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#: 1710D06  
02-Nov-17

Client: Williams Four Corners  
Project: Trunk S Deliniation

Sample ID	<b>MB-34651</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488248</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID	<b>LCS-34651</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488249</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	77.3	128			
Toluene	0.97	0.050	1.000	0	96.7	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.7	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.2	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	<b>1710D06-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SB-01@5'</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488251</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.023	0.9381	0	103	80.9	132			
Toluene	0.98	0.047	0.9381	0.007591	104	79.8	136			
Ethylbenzene	0.97	0.047	0.9381	0	104	79.4	140			
Xylenes, Total	3.0	0.094	2.814	0	106	78.5	142			
Surr: 4-Bromofluorobenzene	0.93		0.9381		99.1	80	120			

Sample ID	<b>1710D06-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SB-01@5'</b>	Batch ID:	<b>34651</b>	RunNo:	<b>46704</b>					
Prep Date:	<b>10/26/2017</b>	Analysis Date:	<b>10/27/2017</b>	SeqNo:	<b>1488252</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9911	0	100	80.9	132	2.40	20	
Toluene	1.0	0.050	0.9911	0.007591	100	79.8	136	2.15	20	
Ethylbenzene	1.0	0.050	0.9911	0	101	79.4	140	2.26	20	
Xylenes, Total	3.0	0.099	2.973	0	101	78.5	142	0.852	20	
Surr: 4-Bromofluorobenzene	0.98		0.9911		99.4	80	120	0	0	

### 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                                    |
| PQL Practical Quantitative Limit                        | 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 FOUR CORN

Work Order Number: 1710D06

RcptNo: 1

Received By: **Sophia Campuzano** 10/25/2017 8:00:00 AM

Completed By: **Erin Melendrez** 10/25/2017 9:09:08 AM

Reviewed By: *[Signature]* 10/25/17

*[Signature]*  
*[Signature]*

### 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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# 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:

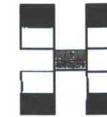
### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

# Chain-of-Custody Record

Client: Williams Four corners  
 -Attn: Aaron Galer  
 Mailing Address: 295 Chipeta Way  
Salt Lake City, UT 84108  
 Phone #: 801-584-6746  
 email or Fax#: aaron.galer@williams.com  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) PDF

Turn-Around Time:  
 Standard  Rush \_\_\_\_\_  
 Project Name:  
TRUNK S Delineation  
 Project #:  
Williams: A. Galer  
LTE: D. Burns  
 Project Manager:  
Eric Carroll  
 On Ice:  Yes  No  
 Sample Temperature: 1.4 to 0.5 (C) = 34.7 F



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)
10/23	10:46	S	SB-01@5'	1-4oz	Cool	1710.D006	X		X								
	11:06		SB-01@20'				X		X								
	11:26		SB-02@5'				X		X								
	11:45		SB-02@15'				X		X								
	12:10		SB-03@10'				X		X								
	12:30		SB-03@15'				X		X								

Date: 10/24/17 Time: 13:30 Relinquished by: [Signature] Received by: [Signature] Date: 10/24/17 Time: 1330  
 Date: 10/24/17 Time: 1921 Relinquished by: [Signature] Received by: [Signature] Date: 10/25/17 Time: 0800

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 noted 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)

November 06, 2017

Aaron Galer  
Williams Four Corners  
188 CR 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Trunks

OrderNo.: 1710F89

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/31/2017 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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1710F89**

Date Reported: 11/6/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** SB-04 10'

**Project:** Trunks

**Collection Date:** 10/26/2017 11:15:00 AM

**Lab ID:** 1710F89-001

**Matrix:** SOIL

**Received Date:** 10/31/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	53	9.5		mg/Kg	1	11/3/2017 7:52:27 PM	34780
Motor Oil Range Organics (MRO)	72	48		mg/Kg	1	11/3/2017 7:52:27 PM	34780
Surr: DNOP	95.9	70-130		%Rec	1	11/3/2017 7:52:27 PM	34780
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	270	24		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Surr: BFB	251	15-316		%Rec	5	11/2/2017 9:19:16 AM	34737
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.48		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Benzene	ND	0.12		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Toluene	1.5	0.24		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Ethylbenzene	0.95	0.24		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Xylenes, Total	12	0.48		mg/Kg	5	11/2/2017 9:19:16 AM	34737
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	5	11/2/2017 9:19:16 AM	34737

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
	PQL Practical Quantitative Limit	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 1710F89

Date Reported: 11/6/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** SB-04 30'

**Project:** Trunks

**Collection Date:** 10/26/2017 11:30:00 AM

**Lab ID:** 1710F89-002

**Matrix:** SOIL

**Received Date:** 10/31/2017 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/3/2017 8:58:56 PM	34780
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2017 8:58:56 PM	34780
Surr: DNOP	91.3	70-130		%Rec	1	11/3/2017 8:58:56 PM	34780
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Surr: BFB	84.1	15-316		%Rec	1	11/2/2017 10:29:45 AM	34737
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Benzene	ND	0.024		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Toluene	ND	0.048		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Ethylbenzene	ND	0.048		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Xylenes, Total	ND	0.096		mg/Kg	1	11/2/2017 10:29:45 AM	34737
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	11/2/2017 10:29:45 AM	34737

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
PQL	Practical Quantitative Limit	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#: 1710F89

06-Nov-17

**Client:** Williams Four Corners

**Project:** Trunks

Sample ID	<b>LCS-34793</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34793</b>	RunNo:	<b>46863</b>					
Prep Date:	<b>11/3/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1494698</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.7	70	130			

Sample ID	<b>MB-34780</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34780</b>	RunNo:	<b>46863</b>					
Prep Date:	<b>11/2/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1494699</b>	Units:	<b>mg/Kg</b>			
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	8.0		10.00		79.8	70	130			

Sample ID	<b>MB-34793</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34793</b>	RunNo:	<b>46863</b>					
Prep Date:	<b>11/3/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1494700</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.0		10.00		80.3	70	130			

Sample ID	<b>LCS-34780</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34780</b>	RunNo:	<b>46863</b>					
Prep Date:	<b>11/2/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1494944</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.1	73.2	114			
Surr: DNOP	4.4		5.000		88.4	70	130			

Sample ID	<b>1710F89-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>SB-04 10'</b>	Batch ID:	<b>34780</b>	RunNo:	<b>46864</b>					
Prep Date:	<b>11/2/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1495917</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	9.8	48.92	53.35	115	55.8	122			
Surr: DNOP	4.8		4.892		97.5	70	130			

Sample ID	<b>1710F89-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>SB-04 10'</b>	Batch ID:	<b>34780</b>	RunNo:	<b>46864</b>					
Prep Date:	<b>11/2/2017</b>	Analysis Date:	<b>11/3/2017</b>	SeqNo:	<b>1495918</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	9.1	45.62	53.35	122	55.8	122	0.788	20	

**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
- PQL Practical Quantitative Limit
- 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#: 1710F89

06-Nov-17

Client: Williams Four Corners

Project: Trunks

Sample ID	1710F89-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-04 10'	Batch ID:	34780	RunNo:	46864					
Prep Date:	11/2/2017	Analysis Date:	11/3/2017	SeqNo:	1495918	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		4.562		99.9	70	130	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
- PQL Practical Quantitative Limit
- 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#: 1710F89

06-Nov-17

**Client:** Williams Four Corners

**Project:** Trunks

Sample ID: <b>MB-34737</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1493970</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.2	15	316			

Sample ID: <b>LCS-34737</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1493971</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.5	75.9	131			
Surr: BFB	920		1000		91.6	15	316			

Sample ID: <b>1710F89-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SB-04 30'</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1493976</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.6	22.91	2.334	120	77.8	128			
Surr: BFB	930		916.6		101	15	316			

Sample ID: <b>1710F89-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>SB-04 30'</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1493977</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.9	24.34	2.334	123	77.8	128	7.81	20	
Surr: BFB	1000		973.7		104	15	316	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
- PQL Practical Quantitative Limit
- 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#: 1710F89

06-Nov-17

**Client:** Williams Four Corners

**Project:** Trunks

Sample ID <b>MB-34737</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1494090</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.3	80	120			

Sample ID <b>LCS-34737</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1494091</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.85	0.10	1.000	0	85.3	70.1	121			
Benzene	0.93	0.025	1.000	0	92.9	77.3	128			
Toluene	0.93	0.050	1.000	0	93.1	79.2	125			
Ethylbenzene	0.91	0.050	1.000	0	91.2	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	92.4	81.6	129			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Sample ID <b>1710F89-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SB-04 10'</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1494096</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.88	0.47	0.9398	0	93.6	72.5	138			
Benzene	0.95	0.12	0.9398	0.08729	92.2	80.9	132			
Toluene	2.1	0.23	0.9398	1.507	65.2	79.8	136			S
Ethylbenzene	1.7	0.23	0.9398	0.9549	77.8	79.4	140			S
Xylenes, Total	12	0.47	2.820	11.94	4.22	78.5	142			S
Surr: 4-Bromofluorobenzene	4.7		4.699		99.6	80	120			

Sample ID <b>1710F89-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SB-04 10'</b>	Batch ID: <b>34737</b>	RunNo: <b>46837</b>								
Prep Date: <b>11/1/2017</b>	Analysis Date: <b>11/2/2017</b>	SeqNo: <b>1494097</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.89	0.49	0.9756	0	91.6	72.5	138	1.47	20	
Benzene	0.99	0.12	0.9756	0.08729	92.2	80.9	132	3.44	20	
Toluene	2.3	0.24	0.9756	1.507	78.3	79.8	136	6.87	20	S
Ethylbenzene	1.8	0.24	0.9756	0.9549	81.8	79.4	140	3.87	20	

**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
- PQL Practical Quantitative Limit
- 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#: 1710F89

06-Nov-17

Client: Williams Four Corners

Project: Trunks

Sample ID	1710F89-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SB-04 10'	Batch ID:	34737	RunNo:	46837					
Prep Date:	11/1/2017	Analysis Date:	11/2/2017	SeqNo:	1494097	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	13	0.49	2.927	11.94	32.1	78.5	142	6.58	20	S
Surr: 4-Bromofluorobenzene	4.9		4.878		100	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  
PQL Practical Quantitative Limit  
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 FOUR CORN

Work Order Number: 1710F89

RcptNo: 1

Received By: **Richie Eriacho** 10/31/2017 8:15:00 AM

Completed By: **Richie Eriacho** 10/31/2017 2:14:15 PM

Reviewed By: **RL/ENM** **11/1/17**

*RL*  
*RL*

### 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° C to 6.0° C Yes  No  NA
6. Sample(s) in proper container(s)? Yes  No
7. Sufficient sample volume for indicated test(s)? Yes  No
8. Are samples (except VOA and ONG) properly preserved? Yes  No
9. Was preservative added to bottles? Yes  No  NA
10. VOA vials have zero headspace? Yes  No  No VOA Vials
11. Were any sample containers received broken? Yes  No
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. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.4	Good				

# Chain-of-Custody Record

Client: Williams Four corners

Mailing Address: Aaron Galer

Phone #: \_\_\_\_\_

email or Fax#: aaron.galer@williams.com

QA/QC Package:  
 Standard       Level 4 (Full Validation)

Accreditation  
 NELAP       Other \_\_\_\_\_

EDD (Type) PDF

Turn-Around Time:  
 Standard       Rush \_\_\_\_\_

Project Name:  
TRUNK 5

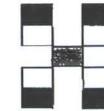
Project #:  
034017012

Project Manager: Williams: Aaron Galer  
LTE: Danny Burns

Sampler: Elic Carroll

On Ice:  Yes       No

Sample Temperature: 4



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
10/20/17	11:15	S	SB-04 10'	1 402	None	-001	X	X											
10/20/17	11:30	S	SB-04 30'	1 402	↓	-002	X	X											

Date: <u>10/30/17</u>	Time: <u>18:20</u>	Relinquished by: <u>Elic Carroll</u>	Received by: <u>Chet Watt</u>	Date: <u>10/30/17</u>	Time: <u>1820</u>	Remarks: <u>cc to: dburns@ltenv.com</u> <u>aager@ltenv.com</u>
Date: <u>10/31/17</u>	Time: <u>2046</u>	Relinquished by: <u>Chet Watt</u>	Received by: <u>RL</u>	Date: <u>10/31/17</u>	Time: <u>0815</u>	

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)

November 17, 2017

Aaron Galer  
Williams Four Corners  
188 CR 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Trunks Loop

OrderNo.: 1711606

Dear Aaron Galer:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/10/2017 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BA North

Project: Trunks Loop

Collection Date: 11/9/2017

Lab ID: 1711606-001

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	93	10		mg/Kg	1	11/15/2017 4:07:36 PM	34988
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	11/15/2017 4:07:36 PM	34988
Surr: DNOP	90.6	70-130		%Rec	1	11/15/2017 4:07:36 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	250	23		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Surr: BFB	232	15-316		%Rec	5	11/13/2017 8:55:27 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.47		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Benzene	ND	0.12		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Toluene	1.7	0.23		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Ethylbenzene	0.67	0.23		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Xylenes, Total	10	0.47		mg/Kg	5	11/13/2017 8:55:27 PM	34944
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	11/13/2017 8:55:27 PM	34944

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
PQL	Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: BA South

Project: Trunks Loop

Collection Date: 11/9/2017 10:40:00 AM

Lab ID: 1711606-002

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	230	9.7		mg/Kg	1	11/15/2017 4:29:35 PM	34988
Motor Oil Range Organics (MRO)	220	48		mg/Kg	1	11/15/2017 4:29:35 PM	34988
Surr: DNOP	100	70-130		%Rec	1	11/15/2017 4:29:35 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	190	24		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Surr: BFB	214	15-316		%Rec	5	11/14/2017 3:40:37 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.49		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Benzene	ND	0.12		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Toluene	1.7	0.24		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Ethylbenzene	0.55	0.24		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Xylenes, Total	7.3	0.49		mg/Kg	5	11/14/2017 3:40:37 PM	34944
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	11/14/2017 3:40:37 PM	34944

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
	PQL Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: S Wall

Project: Trunks Loop

Collection Date: 11/9/2017 11:00:00 AM

Lab ID: 1711606-003

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/15/2017 4:51:34 PM	34988
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/15/2017 4:51:34 PM	34988
Surr: DNOP	81.9	70-130		%Rec	1	11/15/2017 4:51:34 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Surr: BFB	91.5	15-316		%Rec	1	11/13/2017 9:42:24 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Benzene	ND	0.024		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Toluene	ND	0.047		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Ethylbenzene	ND	0.047		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Xylenes, Total	ND	0.095		mg/Kg	1	11/13/2017 9:42:24 PM	34944
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	11/13/2017 9:42:24 PM	34944

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
	PQL Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: N Wall

Project: Trunks Loop

Collection Date: 11/9/2017 11:20:00 AM

Lab ID: 1711606-004

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	19	9.5		mg/Kg	1	11/15/2017 5:13:46 PM	34988
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/15/2017 5:13:46 PM	34988
Surr: DNOP	90.5	70-130		%Rec	1	11/15/2017 5:13:46 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Surr: BFB	103	15-316		%Rec	1	11/13/2017 10:05:47 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Benzene	ND	0.024		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Toluene	ND	0.048		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Ethylbenzene	ND	0.048		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Xylenes, Total	ND	0.096		mg/Kg	1	11/13/2017 10:05:47 PM	34944
Surr: 4-Bromofluorobenzene	97.0	80-120		%Rec	1	11/13/2017 10:05:47 PM	34944

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
PQL	Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** E Wall 1

**Project:** Trunks Loop

**Collection Date:** 11/9/2017 11:30:00 AM

**Lab ID:** 1711606-005

**Matrix:** SOIL

**Received Date:** 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/15/2017 5:35:56 PM	34988
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	11/15/2017 5:35:56 PM	34988
Surr: DNOP	78.7	70-130		%Rec	1	11/15/2017 5:35:56 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Surr: BFB	95.6	15-316		%Rec	1	11/13/2017 10:29:07 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Benzene	ND	0.024		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Toluene	ND	0.048		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Ethylbenzene	ND	0.048		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Xylenes, Total	ND	0.095		mg/Kg	1	11/13/2017 10:29:07 PM	34944
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	11/13/2017 10:29:07 PM	34944

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
	PQL Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: E Wall 2

Project: Trunks Loop

Collection Date: 11/9/2017 11:40:00 AM

Lab ID: 1711606-006

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	23	10		mg/Kg	1	11/15/2017 5:58:07 PM	34988
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/15/2017 5:58:07 PM	34988
Surr: DNOP	78.5	70-130		%Rec	1	11/15/2017 5:58:07 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	110	23		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Surr: BFB	155	15-316		%Rec	5	11/14/2017 4:03:56 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.47		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Benzene	ND	0.12		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Toluene	1.1	0.23		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Ethylbenzene	0.27	0.23		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Xylenes, Total	5.1	0.47		mg/Kg	5	11/14/2017 4:03:56 PM	34944
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	5	11/14/2017 4:03:56 PM	34944

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
PQL	Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: W Wall 1

Project: Trunks Loop

Collection Date: 11/9/2017 11:50:00 AM

Lab ID: 1711606-007

Matrix: SOIL

Received Date: 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	59	9.5		mg/Kg	1	11/15/2017 6:20:08 PM	34988
Motor Oil Range Organics (MRO)	350	48		mg/Kg	1	11/15/2017 6:20:08 PM	34988
Surr: DNOP	97.9	70-130		%Rec	1	11/15/2017 6:20:08 PM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	31	4.7		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Surr: BFB	209	15-316		%Rec	1	11/13/2017 11:15:42 PM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Benzene	ND	0.024		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Toluene	0.20	0.047		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Ethylbenzene	0.11	0.047		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Xylenes, Total	2.1	0.094		mg/Kg	1	11/13/2017 11:15:42 PM	34944
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	11/13/2017 11:15:42 PM	34944

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
	PQL Practical Quantitative Limit	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 1711606

Date Reported: 11/17/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Four Corners

**Client Sample ID:** W Wall 2

**Project:** Trunks Loop

**Collection Date:** 11/9/2017 12:00:00 PM

**Lab ID:** 1711606-008

**Matrix:** SOIL

**Received Date:** 11/10/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	77	9.8		mg/Kg	1	11/16/2017 10:06:41 AM	34988
Motor Oil Range Organics (MRO)	420	49		mg/Kg	1	11/16/2017 10:06:41 AM	34988
Surr: DNOP	102	70-130		%Rec	1	11/16/2017 10:06:41 AM	34988
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	210	23		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Surr: BFB	206	15-316		%Rec	5	11/14/2017 12:49:20 AM	34944
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.47		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Benzene	ND	0.12		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Toluene	0.24	0.23		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Ethylbenzene	ND	0.23		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Xylenes, Total	2.5	0.47		mg/Kg	5	11/14/2017 12:49:20 AM	34944
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	5	11/14/2017 12:49:20 AM	34944

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
	PQL Practical Quantitative Limit	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#: 1711606  
17-Nov-17

**Client:** Williams Four Corners  
**Project:** Trunks Loop

Sample ID	<b>LCS-34988</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34988</b>	RunNo:	<b>47144</b>					
Prep Date:	<b>11/14/2017</b>	Analysis Date:	<b>11/15/2017</b>	SeqNo:	<b>1504196</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.2	73.2	114			
Surr: DNOP	4.2		5.000		83.6	70	130			

Sample ID	<b>MB-34988</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34988</b>	RunNo:	<b>47144</b>					
Prep Date:	<b>11/14/2017</b>	Analysis Date:	<b>11/15/2017</b>	SeqNo:	<b>1504197</b>	Units:	<b>mg/Kg</b>			
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	9.3		10.00		92.8	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1711606

17-Nov-17

Client: Williams Four Corners

Project: Trunks Loop

Sample ID	<b>MB-34944</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34944</b>	RunNo:	<b>47077</b>					
Prep Date:	<b>11/10/2017</b>	Analysis Date:	<b>11/13/2017</b>	SeqNo:	<b>1502179</b>	Units:	<b>mg/Kg</b>			
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		92.4	15	316			

Sample ID	<b>LCS-34944</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34944</b>	RunNo:	<b>47077</b>					
Prep Date:	<b>11/10/2017</b>	Analysis Date:	<b>11/13/2017</b>	SeqNo:	<b>1502180</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	75.9	131			
Surr: BFB	1000		1000		104	15	316			

## 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
- PQL Practical Quantitative Limit
- 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#: 1711606  
17-Nov-17

Client: Williams Four Corners  
Project: Trunks Loop

Sample ID	<b>MB-34944</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34944</b>	RunNo:	<b>47077</b>					
Prep Date:	<b>11/10/2017</b>	Analysis Date:	<b>11/13/2017</b>	SeqNo:	<b>1502211</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	80	120			

Sample ID	<b>LCS-34944</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34944</b>	RunNo:	<b>47077</b>					
Prep Date:	<b>11/10/2017</b>	Analysis Date:	<b>11/13/2017</b>	SeqNo:	<b>1502212</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.77	0.10	1.000	0	77.0	70.1	121			
Benzene	0.80	0.025	1.000	0	79.8	77.3	128			
Toluene	0.81	0.050	1.000	0	81.2	79.2	125			
Ethylbenzene	0.83	0.050	1.000	0	82.6	80.7	127			
Xylenes, Total	2.5	0.10	3.000	0	84.2	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	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                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Sample Log-In Check List**

Client Name: WILLIAMS FOUR CORN

Work Order Number: 1711606

RcptNo: 1

Received By: Richie Eriacho 11/10/2017 7:30:00 AM

Completed By: Ashley Gallegos 11/10/2017 9:49:09 AM

Reviewed By: *[Signature]* 11/10/17

**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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# 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:

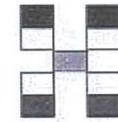
**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			

# Chain-of-Custody Record

Client: Williams four corners  
Aaron Galer  
 Mailing Address:  
 Phone #:  
 email or Fax#: aaron.galer@williams.com  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) PDF

Turn-Around Time:  
 Standard  Rush  
 Project Name:  
TRUNKS LOOP  
 Project #:  
034017012  
 Project Manager:  
Williams: Aaron Galer  
LTE: Danny Burns  
 Sampler: Eric Carroll  
 On Ice:  Yes  No  
 Sample Temperature: 3.8 + 0.1 = 3.9



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
<u>11/9/17</u>		<u>Soil</u>	<u>BA North</u>	<u>140=</u>	<u>None</u>	<u>1711406</u> <u>-001</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>10:40</u>		<u>BA South</u>			<u>-002</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>11:00</u>		<u>S wall</u>			<u>-003</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>11:20</u>		<u>N wall</u>			<u>-004</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>11:30</u>		<u>E wall 1</u>			<u>-005</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>11:40</u>		<u>E wall 2</u>			<u>-006</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>11:50</u>		<u>w wall 1</u>			<u>-007</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										
	<u>12:00</u>		<u>w wall 2</u>			<u>-008</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>										

Date: 11-9-17 Time: 17:52 Relinquished by: Eric Carroll  
 Date: 11/9/17 Time: 2045 Relinquished by: Christi Waite

Received by: Christi Waite Date: 11/9/17 Time: 1757  
 Received by: [Signature] Date: 11/10/17 Time: 0730

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.

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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Grenier 21</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>Private</b>	Mineral Owner	BLM Project No.
-------------------------------	---------------	-----------------

**LOCATION OF RELEASE**

Unit Letter <b>K</b>	Section <b>13</b>	Township <b>31N</b>	Range <b>12W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	---------------	------------------	---------------	----------------	---------------------------

Latitude **36.8963** Longitude **-108.05237**

**NATURE OF RELEASE**

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>59.6 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline.</b>	Date and Hour of Occurrence: <b>11/01/2017 at 1:00 PM</b>	Date and Hour of Discovery: <b>11/01/2017 at 1:00 PM</b>

Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>
--	-------------------------------

By Whom? <b>NA</b>	Date and Hour: <b>NA</b>
--------------------	--------------------------

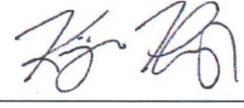
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>
---	--

If a Watercourse was Impacted, Describe Fully.\*  
**NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**Pipeline strike during blading operation. Pipeline was shut in and repaired.**

Describe Area Affected and Cleanup Action Taken.\*  
**Release was only gas and no liquids. No soil was impacted.**

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>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Kijun Hong</b>	Approval Date: <b>11/27/17</b>	Expiration Date:
Title: <b>Environmental Specialist</b>	Conditions of Approval:	Attached <input type="checkbox"/>
E-mail Address: <b>kijun.hong@williams.com</b>		
Date: <b>11/13/2017</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

NVE 1733139184  
OIL CONS. DIV DIST. 3  
NOV 16 2017

SEP 06 2017

Form C-141  
Revised August 8, 2011

District I  
1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
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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 Michael Hannan
Address 1755 Arroyo Drive	Telephone No. 505-632-4807
Facility Name Trunk S/Trunk D/Lateral F-16	Facility Type Pipeline
Surface Owner Private	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	13	29N	6W					San Juan

Latitude 36.72028° N Longitude -107.41937° W

**NATURE OF RELEASE**

Type of Release Petroleum Hydrocarbons	Volume of Release unknown	Volume Recovered 562 cubic yards of impacted soil
Source of Release Historical Operations	Date and Hour of Occurrence Unknown	Date and Hour of Discovery June 27, 2017
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) Vanessa Fields (NMOCD)	
By Whom? Michael Hannan	Date and Hour 6/29/17 08:42 (Cory VM) 6/29/17 08:43 (Vanessa VM)	
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

Describe Cause of Problem and Remedial Action Taken.\*

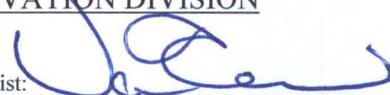
Williams discovered, during a right of way survey, an area impacted by historical operations. Remediation was undertaken from June 27, 2017 through July 10, 2017, and 562 cubic yards of impacted soil have been removed from the site and taken to a NMOCD approved land farm. Immediate NMOCD notification was made once it became apparent that greater than 60 cubic yards of soil would be sent for disposal.

Describe Area Affected and Cleanup Action Taken.\*

A cleanup crew was mobilized to the site for remediation. Remediation has been temporarily halted because the further excavation would cause safety issues by being too close to in service pipelines. The excavation has been fenced off in coordination with the property owner. Williams plans to resume remediation activities when the pipelines can be taken out of service during the next annual shutdown, which is tentatively scheduled to occur around April/May 2018.

On August 2, 2017, Williams received an email request from OCD for submittal of a delineation report and corrective action plan to OCD by September 2, 2017. The scope and deadline were subsequently revised to a delineation report being due by September 5, 2017. This update to the initial C-141 includes the delineation plan for the site.

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:	Expiration Date:

9/11/2017

→ 11

E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9/5/2017 Phone: 505-632-4807		

\* Attach Additional Sheets If Necessary

provide OAD  
48 hours prior to sampling  
Sampling areas verified during site visit.



September 5, 2017

Ms. Vanessa Fields  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**RE: Proposed Impacted Soil Delineation Work Plan  
Trunk S Loop  
Williams Four Corners LLC  
San Juan County, New Mexico**

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), proposes the following work plan to delineate impacted soil at the Trunk S Loop (Site) located in the southwest quarter of the southwest quarter of Section 13 within Township 29 North and Range 6 West in the San Juan Basin in San Juan County, New Mexico.

#### **BACKGROUND**

Soil at the Site is impacted by petroleum hydrocarbons due to a release from the Trunk S pipeline. On June 29, 2017, Williams excavated an area east of the Lateral F-16, Trunk D, and Trunk S pipelines and collected a soil sample at 15 feet below ground surface (bgs). Sandstone bedrock was encountered at 15 feet bgs. On August 9, 2017, Williams performed initial delineation activities west of the excavated area in the vicinity of the Lateral F-16, Trunk D, and Trunk S pipelines. A total of 3 trenches were completed and 3 samples were collected at depths ranging from 10.5 feet to 13.5 feet bgs within the pipeline corridor. The locations of the soil samples and the excavation area are depicted on Figure 1.

Results of laboratory analyses indicated that the eastern soil sample contained a concentration of benzene, toluene, ethylbenzene, and total xylenes (BTEX) of 99.7 milligrams per kilograms (mg/kg) and total petroleum hydrocarbons (TPH) of 3,590 mg/kg. No chloride was detected in the eastern soil sample. The western soil samples contained BTEX concentrations ranging from non-detect to 0.32 mg/kg, TPH concentrations ranging from non-detect to 202 mg/kg, and chloride concentrations ranging from 35 mg/kg to 85 mg/kg.

Depth to groundwater at the Site is estimated to be approximately 620 feet bgs based on water well SJ03364 located approximately 550 feet northeast of the Site. The closest surface water to the Site is a stock pond located approximately 440 feet north of the Site. Based on these criteria New



Mexico Oil Conservation Division (NMOCD) site ranking for remediation action levels is a 10 and the TPH action level is 1,000 mg/kg.

### **PROPOSED DELINEATION**

LTE proposes to install five new soil borings to delineate the soil impacts for the Site (Figure 1). A borehole will be advanced in the center of the excavation to delineate the total depth of impact and boreholes will be advanced to the north, east, and south of the excavation and to the west of the pipeline corridor. Each new soil boring will be installed by Cascade Drilling (Cascade) using sonic drilling techniques. Continuous soil samples will be logged by an LTE geologist and described using the Unified Soil Classification System (USCS) to delineate hydrocarbon impacts. The intervals from immediately beneath the ground surface and then every five feet thereafter will be screened for volatile aromatic hydrocarbons as well as any soil that is stained or has a hydrocarbon odor using a photo-ionization detector (PID). Soil samples with the highest PID reading and a bottom hole sample will be collected from each borehole to be submitted to a certified laboratory for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH – gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) by EPA Method 8015. Additional soil borings will be advanced radially in approximately 50-foot steps from any soil boring demonstrating significant evidence of hydrocarbon impacts. The soil boring will be advanced to a depth of approximately 15 feet bgs or below the extent of soil impacted above NMOCD standards based on site ranking.

LTE will complete all work in accordance with industry-accepted practices. LTE will survey the locations of the soil borings with a Trimble® GeoExplorer® 3000 series Global Positioning System (GPS) to determine the latitude and longitude. Field activities will be documented in a bound field book and soil descriptions will be documented on a boring log. Observations to be noted on the boring log will include, but not be limited to, lithology, moisture content, staining, soil boring depth, latitude, longitude, project number, and comments. All down-hole drilling equipment will be thoroughly decontaminated prior to each use. If impacted soil is identified within a borehole, the impacted cuttings will be drummed and transported to the Envirotech, Inc. Landfarm in Hilltop, New Mexico.

### **REMEDIATION**

Williams will prepare a report documenting all field activities and describing results. The report will include site maps and a table of laboratory analytical results. Based on the results of the delineation, Williams will propose an appropriate remediation strategy.

LTE appreciates the opportunity to provide this proposed work plan to the NMOCD. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at [bherb@ltenv.com](mailto:bherb@ltenv.com) or Aaron Galer at Williams at (801) 584-6746 or [Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com).



Sincerely,  
LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Brooke Herb". The signature is stylized and cursive.

Brooke Herb  
Project Geologist

Attachment

Figure 1 – Site Location

**FIGURE**



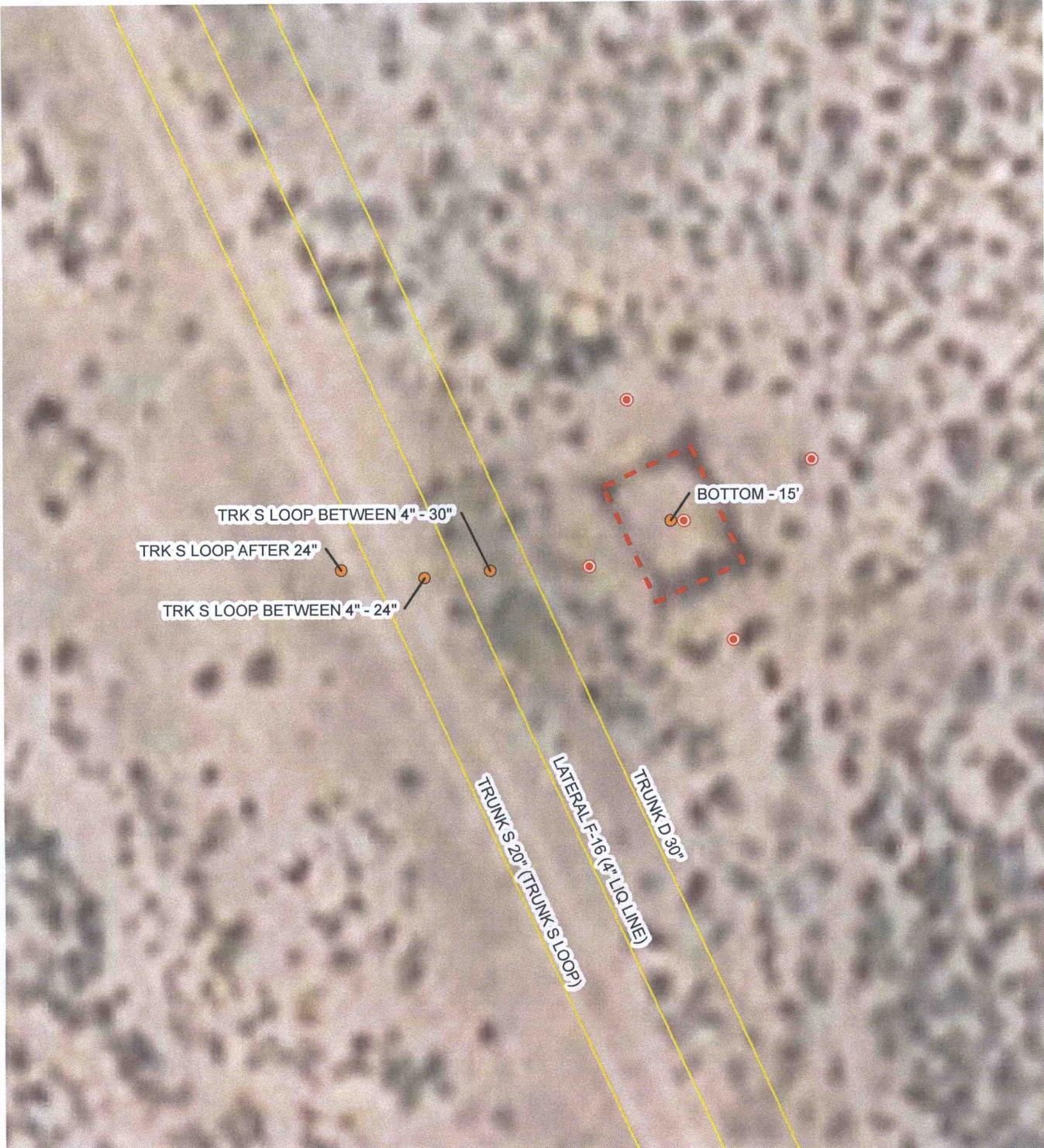
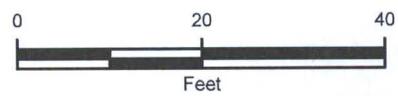


IMAGE COURTESY OF ESRI

**LEGEND**

- SOIL SAMPLE
- PROPOSED SOIL BORING
- ESTIMATED PIPELINE LOCATION
- ESTIMATED EXCAVATION LOCATION



**FIGURE 1**  
**SITE MAP**  
**TRUNK S LOOP**  
**RIO ARRIBA COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS, LLC**



Analytical Report

Lab Order 1706F85

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Trunk S Loop Bottom

Project: Trunk S Loop

Collection Date: 6/29/2017 2:00:00 PM

Lab ID: 1706F85-001

Matrix: SOIL

Received Date: 6/30/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	410	9.2		mg/Kg	1	6/30/2017 10:14:21 AM
Motor Oil Range Organics (MRO)	380	46		mg/Kg	1	6/30/2017 10:14:21 AM
Surr: DNOP	115	70-130		%Rec	1	6/30/2017 10:14:21 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	6/30/2017 10:29:57 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>AG</b>
Benzene	2.8	0.50		mg/Kg	25	6/30/2017 1:59:11 PM
Toluene	28	1.0		mg/Kg	25	6/30/2017 1:59:11 PM
Ethylbenzene	3.9	1.0		mg/Kg	25	6/30/2017 1:59:11 PM
Xylenes, Total	65	2.0		mg/Kg	25	6/30/2017 1:59:11 PM
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	25	6/30/2017 1:59:11 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	25	6/30/2017 1:59:11 PM
Surr: Dibromofluoromethane	105	70-130		%Rec	25	6/30/2017 1:59:11 PM
Surr: Toluene-d8	99.8	70-130		%Rec	25	6/30/2017 1:59:11 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	2800	100		mg/Kg	25	6/30/2017 1:59:11 PM
Surr: BFB	104	70-130		%Rec	25	6/30/2017 1:59:11 PM

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
	PQL Practical Quantitative Limit	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 1708728

Date Reported:

CLIENT: Williams Field Services

Client Sample ID: TRK S Loop Between 30"-4"

Project: TRK S Loop

Collection Date: 8/9/2017 12:15:00 PM

Lab ID: 1708728-001

Matrix: SOIL

Received Date: 8/10/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	35	30		mg/Kg	20	8/21/2017 7:41:54 PM	33475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	48	9.8		mg/Kg	1	8/15/2017 2:30:32 PM	33337
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	8/15/2017 2:30:32 PM	33337
Surr: DNOP	110	70-130		%Rec	1	8/15/2017 2:30:32 PM	33337
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	17	4.8		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Surr: BFB	190	54-150	S	%Rec	1	8/15/2017 7:42:01 PM	33329
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Toluene	ND	0.048		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Xylenes, Total	0.23	0.096		mg/Kg	1	8/15/2017 7:42:01 PM	33329
Surr: 4-Bromofluorobenzene	108	66.6-132		%Rec	1	8/15/2017 7:42:01 PM	33329

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
PQL	Practical Quantitative Limit	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 1708728

Date Reported:

**CLIENT:** Williams Field Services

**Client Sample ID:** TRK S Loop Between 4"-24"

**Project:** TRK S Loop

**Collection Date:** 8/9/2017 12:25:00 PM

**Lab ID:** 1708728-002

**Matrix:** SOIL

**Received Date:** 8/10/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	85	30		mg/Kg	20	8/21/2017 7:54:19 PM	33475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	72	9.7		mg/Kg	1	8/14/2017 5:16:28 PM	33337
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	8/14/2017 5:16:28 PM	33337
Surr: DNOP	89.9	70-130		%Rec	1	8/14/2017 5:16:28 PM	33337
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	20	4.8		mg/Kg	1	8/15/2017 8:05:31 PM	33329
Surr: BFB	221	54-150	S	%Rec	1	8/15/2017 8:05:31 PM	33329
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/15/2017 8:05:31 PM	33329
Toluene	ND	0.048		mg/Kg	1	8/15/2017 8:05:31 PM	33329
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2017 8:05:31 PM	33329
Xylenes, Total	0.32	0.096		mg/Kg	1	8/15/2017 8:05:31 PM	33329
Surr: 4-Bromofluorobenzene	108	66.6-132		%Rec	1	8/15/2017 8:05:31 PM	33329

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
PQL	Practical Quantitative Limit	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 1708728

Date Reported:

CLIENT: Williams Field Services

Client Sample ID: TRK S Loop After 24"

Project: TRK S Loop

Collection Date: 8/9/2017 12:40:00 PM

Lab ID: 1708728-003

Matrix: SOIL

Received Date: 8/10/2017 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	54	30		mg/Kg	20	8/21/2017 8:06:43 PM	33475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/14/2017 5:39:04 PM	33337
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/14/2017 5:39:04 PM	33337
Surr: DNOP	88.2	70-130		%Rec	1	8/14/2017 5:39:04 PM	33337
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/15/2017 8:29:06 PM	33329
Surr: BFB	92.1	54-150		%Rec	1	8/15/2017 8:29:06 PM	33329
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/15/2017 8:29:06 PM	33329
Toluene	ND	0.048		mg/Kg	1	8/15/2017 8:29:06 PM	33329
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2017 8:29:06 PM	33329
Xylenes, Total	ND	0.095		mg/Kg	1	8/15/2017 8:29:06 PM	33329
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	1	8/15/2017 8:29:06 PM	33329

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
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State of New Mexico  
Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3

Form C-141  
Revised April 3, 2017

SEP 05 2017  
Submit to the 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: 1775 Arroyo Drive Bloomfield, NM 87413	Telephone No.: 505-632-4625
Facility Name: NEBU 48A	Facility Type: Pipeline (Dogleg)

Surface Owner: NM State Lands	Mineral Owner NA	API No. NA
-------------------------------	------------------	------------

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	32	31N	7W					SS

Latitude 36.8525 Longitude -107.5949

#### NATURE OF RELEASE

Type of Release: Natural Gas and Pipeline Liquid	Volume of Release: 700 mcf, 10-20 bbl	Volume Recovered: 5 yards of contaminated soil
Source of Release: Pipeline / Dog Leg	Date and Hour of Occurrence 7/16/2017 8:00am	Date and Hour of Discovery 7/16/2017 12:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Verbal Cory Smith, follow up email to Cory Smith included Vanessa Fields and Jonathan Kelly as well as Whitney Tomas at BLM	
By Whom? Matt Webre	Date and Hour 7/16/2017 1:00pm	
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.\*  
NA

Describe Cause of Problem and Remedial Action Taken.\*  
On 7/16/2017 at approximately 8:00am a person from the public drove their truck into our dogleg on CR 4000 south of Navajo Lake. The pipeline was damaged and liquids were released on the road and nearby vegetation. Estimated product released 700 mcf of natural gas over 90 minutes. Liquid released onto and across the county road estimated to be 10-20 bbl. The San Juan County Sheriff's Office (report number 2017-29319) responded to the scene and assisted with traffic control in the area of concern.

Describe Area Affected and Cleanup Action Taken.\*  
A clean-up crew was dispatched to the area on 7/16/2017 to address immediate cleanup action in order to get the road re-opened. The impacts to the road were removed and the road re-opened around 6 pm on 7/16/2017. A temporary berm was created to limit the potential runoff of impacted material. The liquid released encompassed an area approximately 200 feet by 60 feet covering soil and vegetation. We sprayed and washed the trees on 7/18/2017 with simple green and water. We also raked the surface with a micro blaze on 7/19/2017. The product released was no more than 1.5 - 2 inches below the surface. We removed approximately 5 yards of contaminated soil.

The damaged dog leg and pipe was cut out and removed leaving only a valve above the ground. A new guard rail was placed to protect the valve on 7/17/2017.

A follow up email was sent to OCD/BLM on 7/16/2017 approval on clean up actions granted. (email attached)

A soil sample was taken on 8/16/2017, 30 days post event per OCD/BLM recommendations. OCD Jonathan Kelly was onsite to witness the sampling. Sample results are below clean up detection limits (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.

#NCS1729652587

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OIL CONSERVATION DIVISION

Signature: <i>Monica Sandoval</i>	Approved by Environmental Specialist: <i>[Signature]</i>	
Printed Name: Monica Sandoval	Approval Date: <i>10/23/17</i>	Expiration Date: <i>[Signature]</i>
Title: Environmental Specialist	Conditions of Approval: —	Attached <input type="checkbox"/>
E-mail Address: j.l.sandoval@hotmail.com		
Date: 8/31/2017      Phone: 505-632-4625		

\* Attach Additional Sheets If Necessary



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 24, 2017

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

RE: NEBU 48-A

OrderNo.: 1708A06

Dear Monica Sandoval:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/16/2017 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

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Williams Field Services

Client Sample ID: NEBU 48 A Lower End

Project: NEBU 48-A

Collection Date: 8/15/2017 1:50:00 PM

Lab ID: 1708A06-003

Matrix: SOIL

Received Date: 8/16/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/23/2017 11:26:43 PM	33527
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	32	9.7		mg/Kg	1	8/21/2017 9:52:55 PM	33448
Motor Oil Range Organics (MRO)	80	49		mg/Kg	1	8/21/2017 9:52:55 PM	33448
Surr: DNOP	102	70-130		%Rec	1	8/21/2017 9:52:55 PM	33448
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/18/2017 9:32:11 PM	33432
Surr: BFB	96.8	54-150		%Rec	1	8/18/2017 9:32:11 PM	33432
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/18/2017 9:32:11 PM	33432
Toluene	ND	0.049		mg/Kg	1	8/18/2017 9:32:11 PM	33432
Ethylbenzene	ND	0.049		mg/Kg	1	8/18/2017 9:32:11 PM	33432
Xylenes, Total	ND	0.097		mg/Kg	1	8/18/2017 9:32:11 PM	33432
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	1	8/18/2017 9:32:11 PM	33432

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
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Sample Log-In Check List**

Client Name: WILLIAMS FOUR CORN

Work Order Number: 1708A06

RcptNo: 1

Received By: Anne Thorne 8/16/2017 7:15:00 AM

Completed By: Ashley Gallegos 8/16/2017 3:24:33 PM

Reviewed By: ENM 8/17/17

*Anne Thorne*  
*AG*

**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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			



**From:** [Kelly, Jonathan, EMNRD](#)  
**To:** [Foley, Brandon M.](#); [Sandoval, Monica](#); [Webre, Matt](#); [Smith, Cory, EMNRD](#); [Whitney Thomas](#); [Fields, Vanessa, EMNRD](#)  
**Cc:** [Lucero, Christopher](#); [Perrin, Charlie, EMNRD](#); [Groves, Amber](#); [Morris, Mitch](#)  
**Subject:** Re: Release on Middle Mesa  
**Date:** Tuesday, July 18, 2017 12:47:54 PM  
**Attachments:** [image001.png](#)  
[image003.png](#)

---

The NMOCD has no issues with Williams' plan. The NMOCD does request that the soils be raked during spraying and that confirmation sample be witnessed 30 days following spraying with sample notification sent no less than 24 hours prior to sampling.

Thank you

Jonathan Kelly NMOCD

Sent via the Samsung Galaxy S®6 active, an AT&T 4G LTE smartphone

----- Original message -----

From: "Foley, Brandon M." <bfoley@slo.state.nm.us>  
Date: 7/18/17 11:15 AM (GMT-07:00)  
To: "Sandoval, Monica" <Monica.Sandoval@Williams.com>, "Webre, Matt" <Matt.Webre@Williams.com>, "Kelly, Jonathan, EMNRD" <Jonathan.Kelly@state.nm.us>, "Smith, Cory, EMNRD" <Cory.Smith@state.nm.us>, Whitney Thomas <llthomas@blm.gov>, "Fields, Vanessa, EMNRD" <Vanessa.Fields@state.nm.us>  
Cc: "Lucero, Christopher" <Christopher.Lucero@Williams.com>, "Perrin, Charlie, EMNRD" <charlie.perrin@state.nm.us>, "Groves, Amber" <agroves@slo.state.nm.us>, "Morris, Mitch" <Mitch.Morris@williams.com>  
Subject: RE: Release on Middle Mesa

I spoke with our remediation specialist and the State Land Office has no issues with this plan.

Please make sure that the remediation plan/and final closure on the release are approved by OCD, please cc me on correspondences, and **revegetate as necessary**.

Thanks,



**Brandon Foley**

*District Resource Manager  
Field Operations Division  
(505) 326-5716*

New Mexico State Land Office  
3535E. 30<sup>th</sup> Street, Suite 127  
PO Box 3170  
Farmington, NM 87402  
[bfoley@slo.state.nm.us](mailto:bfoley@slo.state.nm.us)

.....  
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**From:** Sandoval, Monica [mailto:Monica.Sandoval@Williams.com]  
**Sent:** Tuesday, July 18, 2017 9:17 AM  
**To:** Foley, Brandon M.; Webre, Matt; Kelly, Jonathan, EMNRD; Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa, EMNRD  
**Cc:** Lucero, Christopher; Perrin, Charlie, EMNRD; Groves, Amber; Morris, Mitch  
**Subject:** RE: Release on Middle Mesa

Hello Brandon,

Estimated product released 700 mcf of natural gas released over 90 minutes. Liquids released onto and across the county road estimated to be 10-20 bbl.

Yes a report was conducted by the San Juan County Sheriff's Department, Report Number 2017-29319 – Officer S. Howard R637. Yes the location is on CR4000.

Attached are pictures of the area.

As seen in the attached pictures there were liquids released onto and across the county road. The liquid released encompassed in an area approximately 200 feet by 60 feet cover surface soil and vegetation. The impacts to the road were removed on 7/16 and a small berm placed along potential drainage locations. We will be spraying and washing the tress today with simple green and water, we will also be raking the surface with micro-blaze. The product released is no more than 1.5-2 inches below surface, we anticipate removing 5 yards of soil at this time.

The dog leg has been cut out and removed leaving only a valve above ground. A new guard rail will be placed to protect the valve.

Please let me know if you have any additional questions or concerns.

Thank-you,



Monica Sandoval | Williams | Environmental Specialist | Operational Excellence – Four Corners Area, LLC  
Office: 505-632-4625 | Cell: 505-947-1852 | 1775 Arroyo Dr. Bloomfield,

NM 87413

---

**From:** Foley, Brandon M. [<mailto:bfoley@slo.state.nm.us>]

**Sent:** Tuesday, July 18, 2017 7:57 AM

**To:** Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>; Kelly, Jonathan, EMNRD <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>; Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Whitney Thomas <[l1thomas@blm.gov](mailto:l1thomas@blm.gov)>; Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>

**Cc:** Sandoval, Monica <[Monica.Sandoval@Williams.com](mailto:Monica.Sandoval@Williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>; Perrin, Charlie, EMNRD <[charlie.perrin@state.nm.us](mailto:charlie.perrin@state.nm.us)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>

**Subject:** RE: Release on Middle Mesa

Good Morning,

I have received Matt and Jonathan's voicemails and reviewed this email. I have a couple questions and requests.

Do we have an estimate of how much product was released? Was this only liquids, or was there gas as well?

Was there any report conducted by law enforcement? As state land, it could be considered criminal trespass, if not a public road. Is this location on CR4000 a SJC maintained or SJC non maintained road?

Does anyone have any quality photos that they can send my way?

I will need to gather some more information before I can consult with our remediation specialist.

Has Williams developed a plan to address the vegetation and soil for review?

The best number to get a hold of me is: (575) 770-3277

Thanks,



**Brandon Foley**

*District Resource Manager*  
*Field Operations Division*  
(505) 326-5716  
New Mexico State Land Office  
3535E. 30<sup>th</sup> Street, Suite 127  
PO Box 3170  
Farmington, NM 87402  
[bfoley@slo.state.nm.us](mailto:bfoley@slo.state.nm.us)

.....  
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---

**From:** Webre, Matt [<mailto:Matt.Webre@Williams.com>]  
**Sent:** Monday, July 17, 2017 7:39 AM  
**To:** Kelly, Jonathan, EMNRD; Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa, EMNRD; Foley, Brandon M.  
**Cc:** Sandoval, Monica; Lucero, Christopher; Perrin, Charlie, EMNRD  
**Subject:** RE: Release on Middle Mesa

Jonathan,

We will have a crew out there working today. I was informed actions today will continue to focus on containment. Below is a summary of what was completed yesterday. Initially I thought this was BLM land but it is located in Section 32, T31N, R7W which is State Lands so I have included Brandon Foley in this email.

- The impacts to the road were removed and the road re-open around 6 PM.
- Drainages of concerns were temporarily bermed to limit an potential runoff of impacted material.

Moving forward we are developing a plan to address impacted vegetation and soil.

Matt

**From:** Kelly, Jonathan, EMNRD [<mailto:Jonathan.Kelly@state.nm.us>]  
**Sent:** Monday, July 17, 2017 7:10 AM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>; Whitney Thomas <[l1thomas@blm.gov](mailto:l1thomas@blm.gov)>; Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>  
**Cc:** Sandoval, Monica <[Monica.Sandoval@Williams.com](mailto:Monica.Sandoval@Williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>; Hopkins, Craig <[Craig.Hopkins@williams.com](mailto:Craig.Hopkins@williams.com)>; Perrin, Charlie, EMNRD <[charlie.perrin@state.nm.us](mailto:charlie.perrin@state.nm.us)>  
**Subject:** RE: Release on Middle Mesa

Good morning Matt,

I should be on my way out there late this morning following some sampling by Cedar Hill, I should be able to get over there by around 12-1pm, maybe earlier.

Jonathan D. Kelly  
Compliance Officer  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410  
(505)334-6178 ext 122  
[jonathan.kelly@state.nm.us](mailto:jonathan.kelly@state.nm.us)

---

**From:** Smith, Cory, EMNRD  
**Sent:** Monday, July 17, 2017 7:02 AM  
**To:** Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>; Whitney Thomas <[l1thomas@blm.gov](mailto:l1thomas@blm.gov)>; Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>  
**Cc:** Kelly, Jonathan, EMNRD <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>; Sandoval, Monica <[Monica.Sandoval@Williams.com](mailto:Monica.Sandoval@Williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>; Hopkins, Craig <[Craig.Hopkins@williams.com](mailto:Craig.Hopkins@williams.com)>; Perrin, Charlie, EMNRD <[charlie.perrin@state.nm.us](mailto:charlie.perrin@state.nm.us)>  
**Subject:** RE: Release on Middle Mesa

Matt,

Please also CC Charlie Perrin on any status updates.

Thank you

Cory Smith  
Environmental Specialist  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410

(505)334-6178 ext 115  
[cory.smith@state.nm.us](mailto:cory.smith@state.nm.us)

**From:** Smith, Cory, EMNRD  
**Sent:** Sunday, July 16, 2017 2:33 PM  
**To:** Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>; Whitney Thomas <[l1thomas@blm.gov](mailto:l1thomas@blm.gov)>; Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>  
**Cc:** Kelly, Jonathan, EMNRD <[Jonathan.Kelly@state.nm.us](mailto:Jonathan.Kelly@state.nm.us)>; Sandoval, Monica <[Monica.Sandoval@Williams.com](mailto:Monica.Sandoval@Williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>; Hopkins, Craig <[Craig.Hopkins@williams.com](mailto:Craig.Hopkins@williams.com)>  
**Subject:** Re: Release on Middle Mesa

Matt,

Thank you for the Follow up email.

When the road re-opens or if the situation changes please give me a call so i can keep our office updated.

Thank you,

---

**From:** Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>  
**Sent:** Sunday, July 16, 2017 2:04 PM  
**To:** Smith, Cory, EMNRD; Whitney Thomas; Fields, Vanessa, EMNRD  
**Cc:** Kelly, Jonathan, EMNRD; Sandoval, Monica; Lucero, Christopher; Hopkins, Craig  
**Subject:** Release on Middle Mesa

Cory,

I am following up from our phone conversation around 1 PM today. A person from the public drove their truck into our dogleg out on Middle Mesa at the following locations N36\* 51' 9.011", W107\* 35' 41.672". The pipeline was damaged and liquids were released on the road and nearby vegetation. Williams is working with the sheriff to control traffic in the area and not allow the public to drive through the release area. I was told that there is an alternate route that the public can take. We have dispatched a cleanup crew today to address items that need immediate attention and get the road re-opened.

Additional work will begin tomorrow to complete pipeline repairs and remediation.

Matt

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Ranking Score Determination

Site Name NEBU 48-A

Legal (Unit, Sec, Twn, Rng) Unit K, S32, T31N, R7W

GPS Coordinates 36.8525, -107.5949

Ranking Score based on NMOCD [Guidelines for Remediation of Leaks, Spills, and Releases](#) dated August 13, 1993.

**Depth to Ground** - The operator should determine the depth to ground water at each site. The depth to ground water is defined as the vertical distance from the lowermost contaminants to the seasonal high water elevation of the ground water. If the exact depth to ground water is unknown, the ground water depth can be estimated using either local water well information, published regional ground water information, data on file with the New Mexico State Engineer Office or the vertical distance from adjacent ground water or surface water.

Notes: Distance to well is 1330 meters, depth of water is 380 feet

Depth to Groundwater	<50 feet	50 – 99 feet	>100 feet
Ranking Score (circle one)	20	10	0

**Wellhead Protection Area** - The operator should determine the horizontal distance from all water sources including private and domestic water sources. Water sources are defined as wells, springs or other sources of fresh water extraction. Private and domestic water sources are those water sources used by less than five households for domestic or stock purposes.

Notes: Nearest water well is 1330 meters

Wellhead Protection Area	<1000 from a water source; or <200 feet from a private domestic water source	
Ranking Score (circle one)	Yes → 20	No → 0

**Distance To Nearest Surface Water Body** - The operator should determine the horizontal distance to all downgradient surface water bodies. Surface water bodies are defined as perennial rivers, streams, creeks, irrigation canals and ditches, lakes, ponds and playas.

Notes: 1,533.8 feet to nearest surface body of water (Navajo Lake to the east)

Distance to Surface Water Body	<200 horizontal feet	200 – 1,000 horizontal feet	>1,000 horizontal feet
Ranking Score (circle one)	20	10	0

**Remediation Action Levels**

Ranking Score (Circle One)	>19	10 - 19	0 - 9
Benzene	10 mg/kg		
BTEX (total)	50 mg/kg		
TPH (GRO and DRO)	100 mg/kg	1,000 mg/kg	5,000 mg/kg

Ranking Completed by (print and sign) Monica Sandoval

Date 8/30/2017

Sources:

[GPS Conversion Tool](#)

[New Mexico Water Rights Reporting System](#) – Water Column/Average Depth to Water Report

[New Mexico Oil and Gas Map](#)



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Q 33	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">SJ 04189 POD1</a>	SJAR	SJ		1	2	3	33	31N	07W		270010	4082017	1330	460	380	80
<a href="#">SJ 03355</a>		SJ		1	1	1	28	31N	07W		269659	4084335*	2466	570	470	100
<a href="#">SJ 01822</a>		SJ		2	2	2	25	31N	08W		266540	4084216*	3030	550	500	50
<a href="#">SJ 01167</a>		SJ		3	4	4	24	31N	08W		266352	4084410*	3300	465	390	75
<a href="#">SJ 03306</a>		SJ		4	4	1	25	31N	08W		265739	4083645*	3336	600	500	100
<a href="#">SJ 00837</a>	RA			4	4		17	30N	07W		269152	4076614*	5477	400		
<a href="#">SJ 03640</a>	RA			1	1	3	15	30N	07W		271072	4077061*	5551	433	241	192
<a href="#">SJ 02366</a>	RA				1	3	15	30N	07W		271062	4077047	5558	345	225	120
<a href="#">SJ 03385</a>	RA			4	4	4	17	30N	07W		269251	4076513*	5587	520	460	60
<a href="#">SJ 03946 POD1</a>	RA			4	2	4	15	30N	07W		270941	4076902	5640	455	285	170
<a href="#">SJ 02698</a>	RA				1	3	15	30N	07W		271173	4076962*	5684	402	255	147
<a href="#">SJ 03426</a>	SJ			4	2	1	14	31N	07W		273560	4087251*	7115	540	420	120
<a href="#">SJ 01022</a>	SJ					1	15	30N	08W		262112	4077679*	7901	19	10	9
<a href="#">SJ 03006</a>	RA			3	3	1	24	30N	07W		274255	4075564*	8567	100		
<a href="#">SJ 03082</a>	RA			1	1	3	24	30N	07W		274244	4075362*	8715	98	61	37
<a href="#">SJ 03485</a>	RA			1	1	3	24	30N	07W		274244	4075362*	8715	126	60	66
<a href="#">SJ 04202 POD1</a>	SJM2	RA		2	1	3	24	30N	07W		274488	4075418	8829	140	72	68
<a href="#">SJ 02818</a>	RA			2	1	3	24	30N	07W		274444	4075362*	8844	86	42	44
<a href="#">SJ 03773 POD1</a>	RA			2	1	3	24	30N	07W		274444	4075362*	8844	120	70	50
<a href="#">SJ 01612</a>	SJ					3	34	32N	07W		272046	4090671*	9234	800		
<a href="#">CR 04696</a>	R										275861	4076163	9298	80	26	54
<a href="#">SJ 03155</a>	SJ			4	2	2	27	30N	08W		263060	4074570*	9373	150	80	70
<a href="#">SJ 03649</a>	SJ				4	1	02	31N	07W		273538	4090167*	9441	600	300	300
<a href="#">SJ 03694 POD1</a>	SJ			3	2	2	27	30N	08W		262860	4074570*	9494	120	40	80
<a href="#">SJ 03694</a>	O	SJ		2	4	2	27	30N	08W		263058	4074371*	9534	120	40	80
<a href="#">SJ 03053</a>	RA			4	4	3	24	30N	07W		274836	4074750*	9564	200		

\*UTM location was derived from PLSS - see Help

(A CLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">SJ 03075</a>	RA			1	2	1	25	30N	07W	274626	4074548*	9588	165	78	87
<a href="#">SJ 00011</a>	RA						32	31N	06W	278321	4081811*	9643	610		
<a href="#">SJ 00198</a>	SJ			4	3	3	32	31N	08W	258895	4081451*	9805	2003		
<a href="#">SJ 03774 POD1</a>	RA			3	3	1	25	30N	07W	274214	4073956*	9821	300	220	80

Average Depth to Water: **217 feet**

Minimum Depth: **10 feet**

Maximum Depth: **500 feet**

Record Count: 30

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 268681

**Northing (Y):** 4082071

**Radius:** 10000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

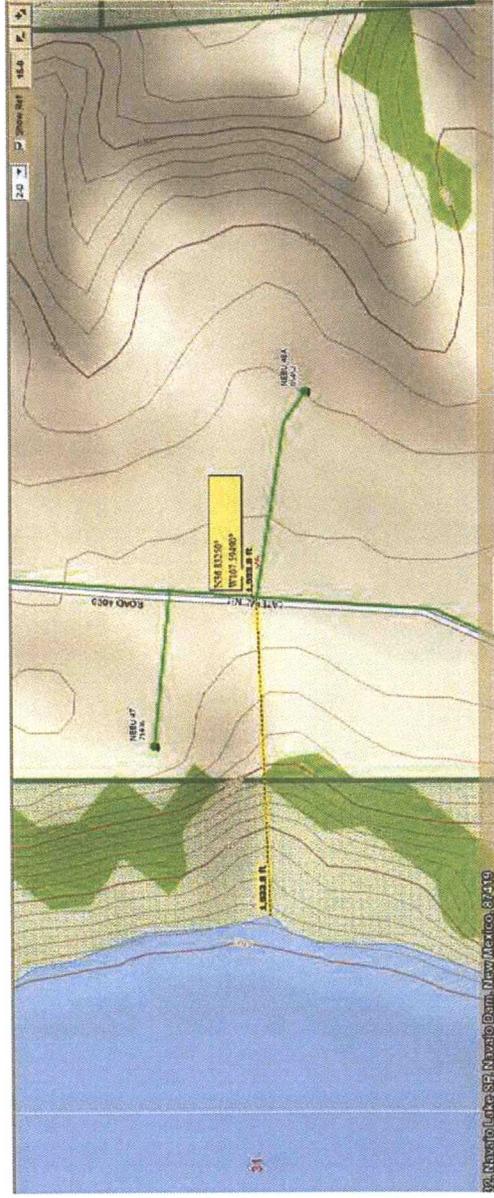
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	SJ 04189 POD1	1 2 3	33	31N	07W	270010	4082017 

<b>Driller License:</b> 1357	<b>Driller Company:</b> BAILEY DRILLING COMPANY	
<b>Driller Name:</b> BAILEY, MARK		
<b>Drill Start Date:</b> 06/27/2017	<b>Drill Finish Date:</b> 07/03/2017	<b>Plug Date:</b>
<b>Log File Date:</b> 07/14/2017	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 10 GPM
<b>Casing Size:</b> 5.00	<b>Depth Well:</b> 460 feet	<b>Depth Water:</b> 380 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	5	25	Sandstone/Gravel/Conglomerate
	300	460	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	0	360
	360	460

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



31. Reservoir Lake SF, Navajo Dam, New Mexico, 87439

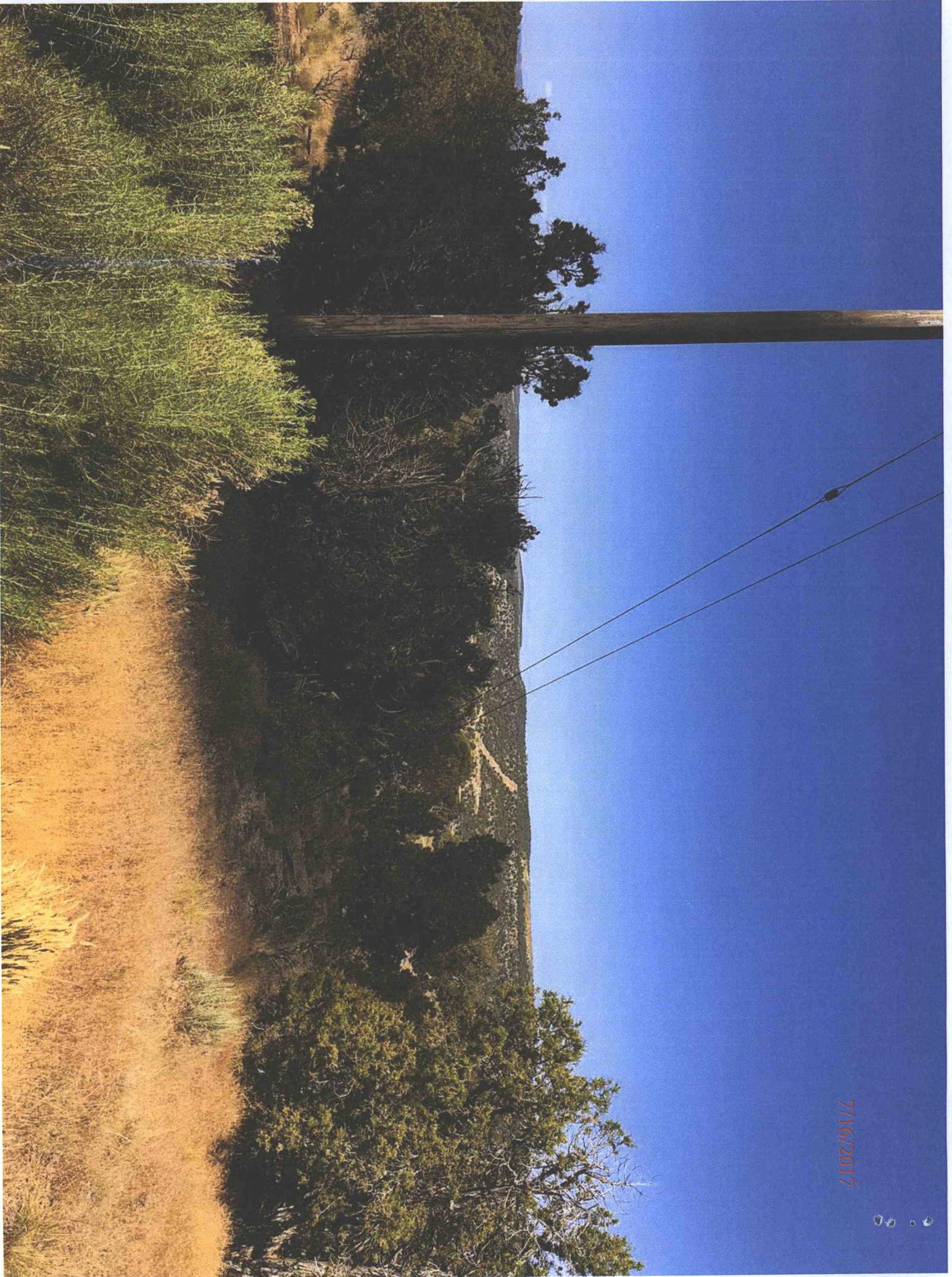


7/16/2017



7/16/2017

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7/16/2017



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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>McClanahan #8</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
---------------------------	---------------	-----------------

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>O</b>	<b>24</b>	<b>28N</b>	<b>10W</b>					<b>San Juan</b>

Latitude **36.643138** Longitude **-107.841704**

### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>43.849 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline drip</b>	Date and Hour of Occurrence: <b>09/12/2017 at 1 PM</b>	Date and Hour of Discovery: <b>09/13/2017 at 1 PM</b>
		<b>Soil threshold was exceeded on 9/27/2017</b>

Was Immediate Notice Given?  Yes  No  Not Required

If YES, To Whom? **NA**

By Whom? **NA**

Date and Hour: **NA**

Was a Watercourse Reached?  Yes  No

If YES, Volume Impacting the Watercourse. **NA**

If a Watercourse was Impacted, Describe Fully.\*  
**NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**Natural gas released from a leak in the pipeline drip. The section was immediately isolated and shut-in upon discovery.**

Describe Area Affected and Cleanup Action Taken.\*  
**Leak has been fixed and the affected area has been remediated. Final haul amount of impacted soil was 48 yards hauled on 9/27/2017. Please see attachments for further details.**

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: **Kijun Hong**

Title: **Environmental Specialist**

Approval Date: **10/23/17**

Expiration Date:

E-mail Address: **kijun.hong@williams.com**

Conditions of Approval: 

Attached

Date: **10/12/2017** Phone: **(505) 632-4475**

\* Attach Additional Sheets If Necessary

#NCS1729639351

13

## Remediation Excavation and Sampling Form

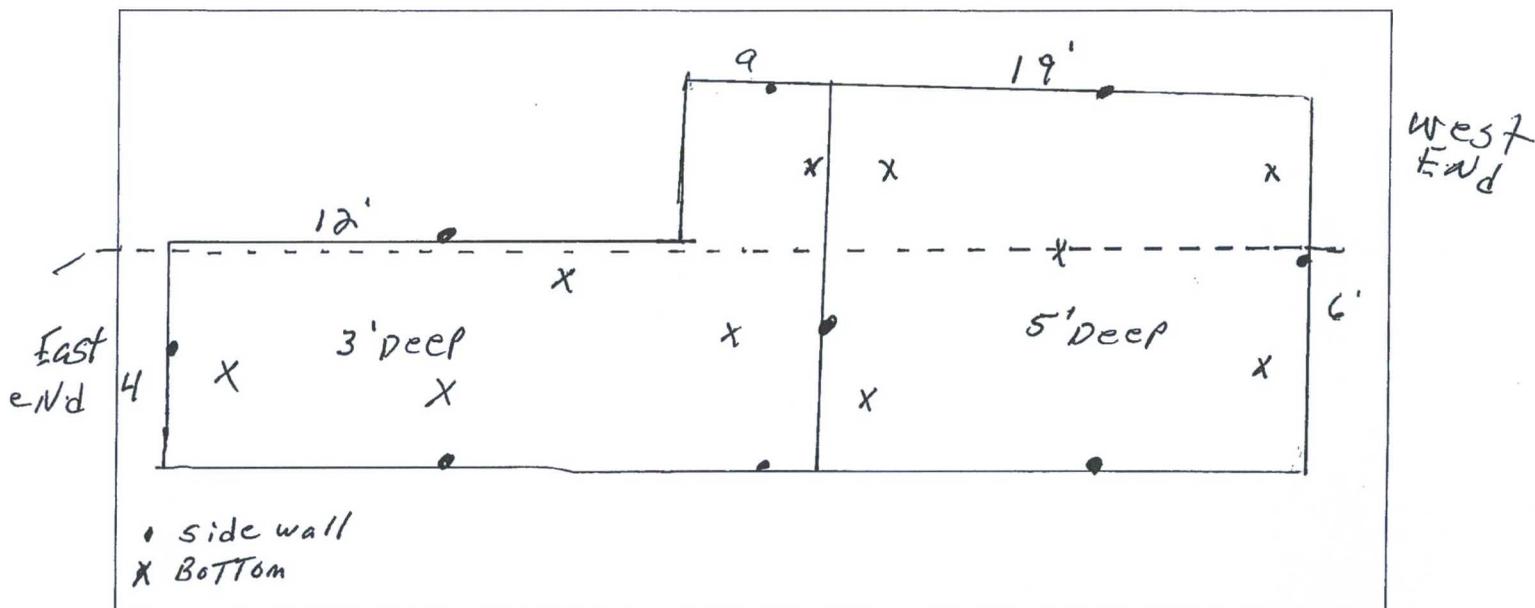
Site Name McClung # 8

**Excavation Dimensions (feet)**

40' Length 4' to 6' Width 3' to 5' Depth

**Excavation Diagram and Sample Locations**

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



**Sample Information**

OCD Witness Sampling  Yes or No

Agency(s) Representative(s) VANESY

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
East End Walls	9-27-17	Composite	sidewalls	1.05 PPM
East End Bottom	9-27-17	composite	Floor	7.20 PPM
West End Walls	9-27-17	composite	sidewalls	<del>9.15 PPM</del> 11.30 PPM
West End Bottom	9-27-17	composite	Floor	9.15 PPM
				40 Yard to I E I
				10 yard Gravel
				50 Yard Clean Fill
				TRIPLE F



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)

October 02, 2017

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

RE: McClanahan 8

OrderNo.: 1709F45

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/28/2017 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".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Field Services  
**Project:** McClanahan 8  
**Lab ID:** 1709F45-001

**Client Sample ID:** East End Wall  
**Collection Date:** 9/27/2017 8:45:00 AM  
**Received Date:** 9/28/2017 7:30:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	9/28/2017 10:25:21 AM	34122
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/28/2017 10:08:39 AM	34120
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	9/28/2017 10:08:39 AM	34120
Surr: DNOP	93.1	70-130		%Rec	1	9/28/2017 10:08:39 AM	34120
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/28/2017 9:42:33 AM	34110
Surr: BFB	86.8	54-150		%Rec	1	9/28/2017 9:42:33 AM	34110
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.020		mg/Kg	1	9/28/2017 9:42:33 AM	34110
Toluene	ND	0.040		mg/Kg	1	9/28/2017 9:42:33 AM	34110
Ethylbenzene	ND	0.040		mg/Kg	1	9/28/2017 9:42:33 AM	34110
Xylenes, Total	ND	0.079		mg/Kg	1	9/28/2017 9:42:33 AM	34110
Surr: 4-Bromofluorobenzene	99.3	66.6-132		%Rec	1	9/28/2017 9:42:33 AM	34110

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
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Williams Field Services

Client Sample ID: East End Bottom

Project: McClanahan 8

Collection Date: 9/27/2017 8:40:00 AM

Lab ID: 1709F45-002

Matrix: SOIL

Received Date: 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	9/28/2017 10:37:46 AM	34122
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/28/2017 10:33:13 AM	34120
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/28/2017 10:33:13 AM	34120
Surr: DNOP	97.4	70-130		%Rec	1	9/28/2017 10:33:13 AM	34120
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/28/2017 10:06:01 AM	34110
Surr: BFB	89.3	54-150		%Rec	1	9/28/2017 10:06:01 AM	34110
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	9/28/2017 10:06:01 AM	34110
Toluene	ND	0.046		mg/Kg	1	9/28/2017 10:06:01 AM	34110
Ethylbenzene	ND	0.046		mg/Kg	1	9/28/2017 10:06:01 AM	34110
Xylenes, Total	ND	0.091		mg/Kg	1	9/28/2017 10:06:01 AM	34110
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	1	9/28/2017 10:06:01 AM	34110

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
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Field Services  
**Project:** McClanahan 8  
**Lab ID:** 1709F45-003

**Matrix:** SOIL

**Client Sample ID:** West End Bottom  
**Collection Date:** 9/27/2017 8:50:00 AM  
**Received Date:** 9/28/2017 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b> Analyst: <b>MRA</b>							
Chloride	ND	30		mg/Kg	20	9/28/2017 10:50:10 AM	34122
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> Analyst: <b>TOM</b>							
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/28/2017 10:57:39 AM	34120
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/28/2017 10:57:39 AM	34120
Surr: DNOP	94.6	70-130		%Rec	1	9/28/2017 10:57:39 AM	34120
<b>EPA METHOD 8015D: GASOLINE RANGE</b> Analyst: <b>NSB</b>							
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/28/2017 10:29:27 AM	34110
Surr: BFB	93.1	54-150		%Rec	1	9/28/2017 10:29:27 AM	34110
<b>EPA METHOD 8021B: VOLATILES</b> Analyst: <b>NSB</b>							
Benzene	ND	0.025		mg/Kg	1	9/28/2017 10:29:27 AM	34110
Toluene	ND	0.049		mg/Kg	1	9/28/2017 10:29:27 AM	34110
Ethylbenzene	ND	0.049		mg/Kg	1	9/28/2017 10:29:27 AM	34110
Xylenes, Total	ND	0.099		mg/Kg	1	9/28/2017 10:29:27 AM	34110
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	1	9/28/2017 10:29:27 AM	34110

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 3 of 8
	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	
	PQL Practical Quantitative Limit	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified	

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Field Services  
**Project:** McClanahan 8  
**Lab ID:** 1709F45-004

**Client Sample ID:** West End Walls  
**Collection Date:** 9/27/2017 8:55:00 AM  
**Received Date:** 9/28/2017 7:30:00 AM

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	9/28/2017 11:02:34 AM	34122
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/28/2017 11:22:10 AM	34120
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/28/2017 11:22:10 AM	34120
Surr: DNOP	96.9	70-130		%Rec	1	9/28/2017 11:22:10 AM	34120
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/28/2017 10:52:49 AM	34110
Surr: BFB	92.9	54-150		%Rec	1	9/28/2017 10:52:49 AM	34110
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.019		mg/Kg	1	9/28/2017 10:52:49 AM	34110
Toluene	ND	0.038		mg/Kg	1	9/28/2017 10:52:49 AM	34110
Ethylbenzene	ND	0.038		mg/Kg	1	9/28/2017 10:52:49 AM	34110
Xylenes, Total	ND	0.076		mg/Kg	1	9/28/2017 10:52:49 AM	34110
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	9/28/2017 10:52:49 AM	34110

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
PQL	Practical Quantitative Limit	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#: 1709F45

02-Oct-17

**Client:** Williams Field Services

**Project:** McClanahan 8

Sample ID <b>MB-34122</b>	SampType: <b>mbk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>34122</b>	RunNo: <b>45955</b>								
Prep Date: <b>9/28/2017</b>	Analysis Date: <b>9/28/2017</b>	SeqNo: <b>1462094</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-34122</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>34122</b>	RunNo: <b>45955</b>								
Prep Date: <b>9/28/2017</b>	Analysis Date: <b>9/28/2017</b>	SeqNo: <b>1462095</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	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
- PQL Practical Quantitative Limit
- 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#: 1709F45  
02-Oct-17

**Client:** Williams Field Services  
**Project:** McClanahan 8

Sample ID	<b>LCS-34120</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34120</b>	RunNo:	<b>45951</b>					
Prep Date:	<b>9/28/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1460551</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.2	73.2	114			
Surr: DNOP	4.4		5.000		87.2	70	130			

Sample ID	<b>MB-34120</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34120</b>	RunNo:	<b>45951</b>					
Prep Date:	<b>9/28/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1460552</b>	Units:	<b>mg/Kg</b>			
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	9.4		10.00		94.1	70	130			

Sample ID	<b>1709F45-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>East End Wall</b>	Batch ID:	<b>34120</b>	RunNo:	<b>45951</b>					
Prep Date:	<b>9/28/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1460969</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.05	2.825	84.8	55.8	122			
Surr: DNOP	4.7		5.005		93.1	70	130			

Sample ID	<b>1709F45-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>East End Wall</b>	Batch ID:	<b>34120</b>	RunNo:	<b>45951</b>					
Prep Date:	<b>9/28/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1460970</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.5	47.48	2.825	86.3	55.8	122	3.29	20	
Surr: DNOP	4.4		4.748		92.5	70	130	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
- PQL Practical Quantitative Limit
- 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#: 1709F45

02-Oct-17

Client: Williams Field Services

Project: McClanahan 8

Sample ID	<b>MB-34110</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>34110</b>	RunNo:	<b>45958</b>					
Prep Date:	<b>9/27/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1461508</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.0	54	150			

Sample ID	<b>LCS-34110</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>34110</b>	RunNo:	<b>45958</b>					
Prep Date:	<b>9/27/2017</b>	Analysis Date:	<b>9/28/2017</b>	SeqNo:	<b>1461509</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	120	76.4	125			
Surr: BFB	1000		1000		102	54	150			

## 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
- PQL Practical Quantitative Limit
- 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#: 1709F45

02-Oct-17

**Client:** Williams Field Services

**Project:** McClanahan 8

Sample ID <b>MB-34110</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>34110</b>	RunNo: <b>45958</b>								
Prep Date: <b>9/27/2017</b>	Analysis Date: <b>9/28/2017</b>	SeqNo: <b>1461547</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	66.6	132			

Sample ID <b>LCS-34110</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>34110</b>	RunNo: <b>45958</b>								
Prep Date: <b>9/27/2017</b>	Analysis Date: <b>9/28/2017</b>	SeqNo: <b>1461559</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	66.6	132			

**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
- PQL Practical Quantitative Limit
- 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: 1709F45

RcptNo: 1

Received By: Sophia Campuzano 9/28/2017 7:30:00 AM

*Sophia Campuzano*

Completed By: Sophia Campuzano 9/28/2017 8:24:09 AM

*Sophia Campuzano*

Reviewed By: ENM

9/28/17

### 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° C to 6.0° C Yes  No  NA
6. Sample(s) in proper container(s)? Yes  No
7. Sufficient sample volume for indicated test(s)? Yes  No
8. Are samples (except VOA and ONG) properly preserved? Yes  No
9. Was preservative added to bottles? Yes  No  NA
10. VOA vials have zero headspace? Yes  No  No VOA Vials
11. Were any sample containers received broken? Yes  No
12. Does paperwork match bottle labels? 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? 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

# Chain-of-Custody Record

Client: WFS

Turn-Around Time: Same Day  
 Standard  Rush 9-28-17

Mailing Address: 1755 ARROYO DR  
Bloom Field Nm 87403  
 Phone #: 505-632-4475

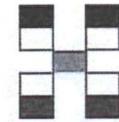
Project Name: McClanahan 8  
 Project #:

email or Fax#: Kijun.Hong@williams.com  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)

Project Manager: KIJUN HONG

Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Sampler: Morgan Killior  
 On Ice:  Yes  No  
 Sample Temperature: 3.6



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
9/27/17	8:45	Soil	East End Wall	1-402	Cool	1709F45-001	X		X									X	
9/27/17	8:40	Soil	East End Bottom	1-402		-002	X		X									X	
9/27/17	8:50	Soil	West End Bottom	1-402		-003	X		X									X	
9/27/17	8:55	Soil	West End Walls	1-402	↓	-004	X		X									X	

Date: 9/27/17 Time: 1725 Relinquished by: Morgan Killior

Received by: Christine Wael Date: 9/27/17 Time: 1725

Remarks:

Date: 9/28/17 Time: 1826 Relinquished by: Mt Wael

Received by: Suzanne Date: 09/28/17 Time: 0730

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 April 3, 2017

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 Milagro	Facility Type Gas Treating Plant

Surface Owner Williams	Mineral Owner	API No.
------------------------	---------------	---------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	12	29N	11W					San Juan

Latitude 36.735966° N Longitude -107.942329° W NAD83

**NATURE OF RELEASE**

Type of Release Amine/Water Mixture (50/50)	Volume of Release 120 bbls	Volume Recovered 119 bbls
Source of Release Pressure Relief Valve	Date and Hour of Occurrence 09/04/2017 16:00 PM	Date and Hour of Discovery 09/04/2017 16:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Vanessa Fields (OCD)	
By Whom? Michael Hannan	Date and Hour 09/05/17 16:20	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**OIL CONS. DIV. DIST. 3**

**SEP 14 2017**

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
The pressure relief valve (PRV) lifted on a carbon filter vessel, causing approximately 120 barrels (bbls) of 50/50 mixture of amine/water liquid to release from the PRV. Approximately 119 bbls was recovered from the concrete secondary containment and approximately 30 gallons (3/4 bbl) was released into the gravel base surrounding the containment. An investigation is underway to determine the cause of the release.

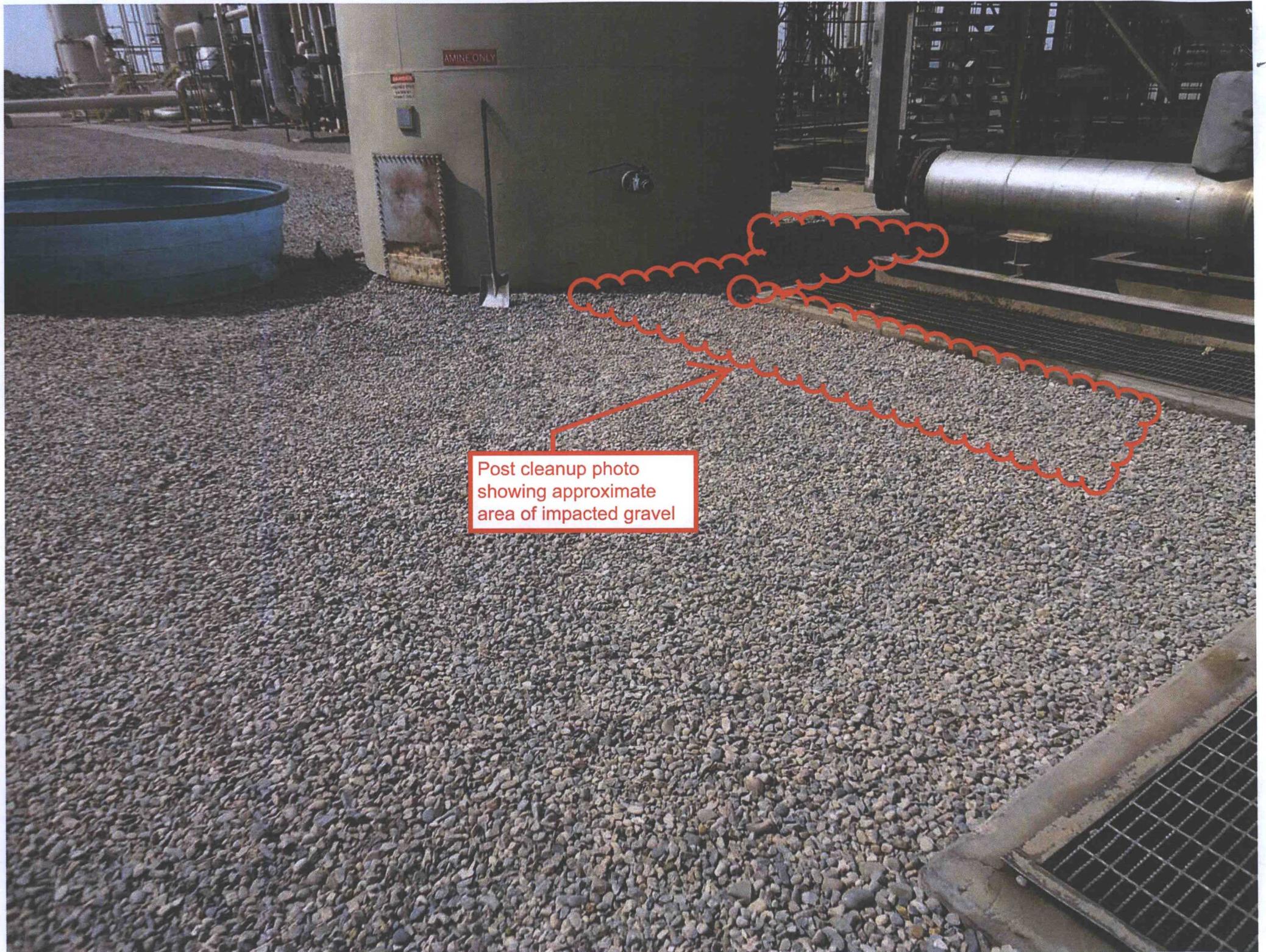
Describe Area Affected and Cleanup Action Taken.\*  
Impacted soil was excavated to the extent of visual impacts. The attached photographs show the impacted area after cleanup was completed. The impacted soil (approximately 6 cubic yards) will be disposed of in accordance with applicable laws and regulations.

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.

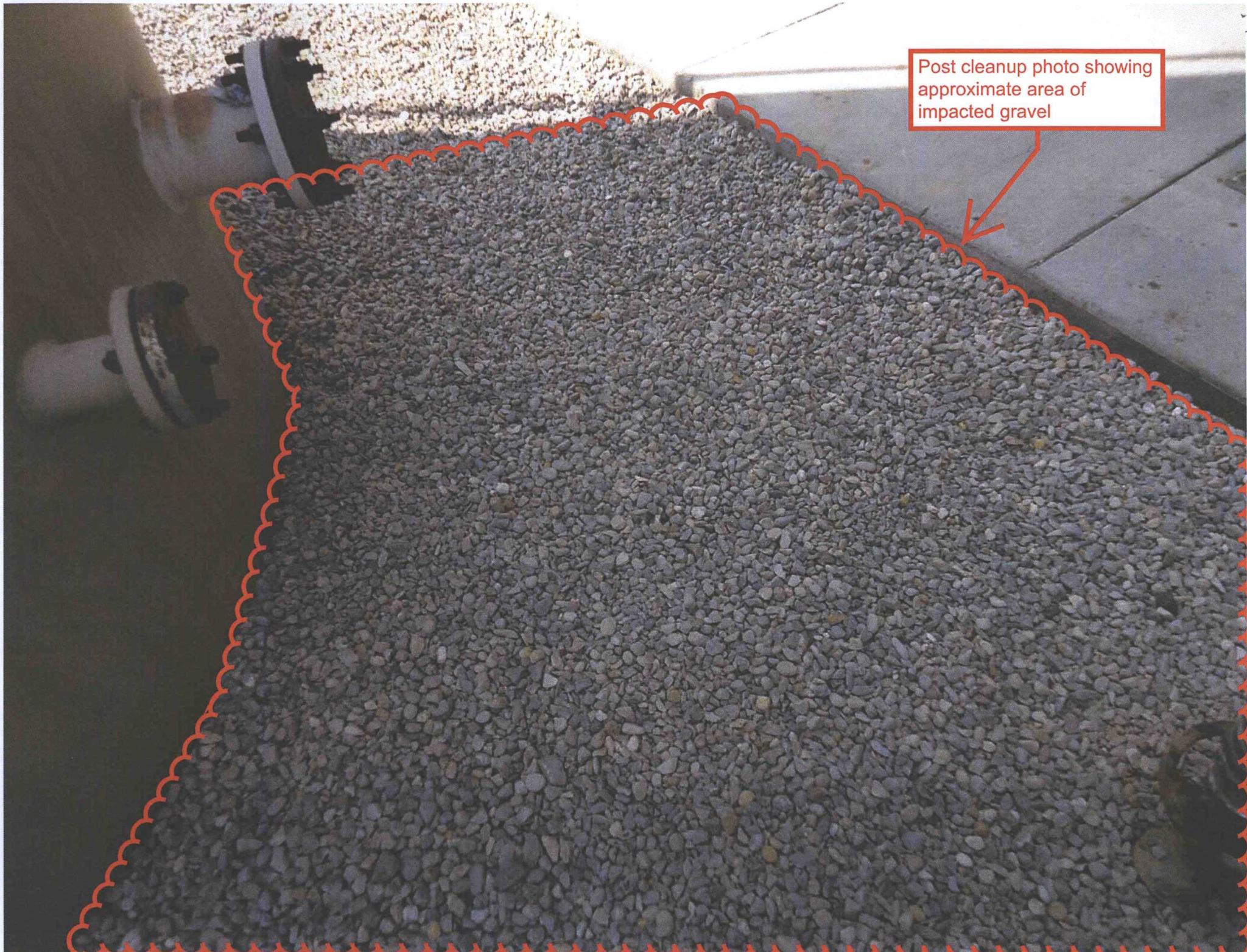
Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Michael Hannan	Approved by Environmental Specialist: 	
Title: Engineer, Sr.	Approval Date: <u>10/3/2017</u>	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 09/11/2017	Phone: (505) 632-4807	

NVF1727638427

\* Attach Additional Sheets If Necessary



Post cleanup photo showing approximate area of impacted gravel



Post cleanup photo showing approximate area of impacted gravel

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

OIL CONS. DIV DIST. 3

SEP 18 2017

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

Form C-141  
Revised August 8, 2011

**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 Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Culpepper</b>	Facility Type: <b>Compressor Station</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
---------------------------	---------------	-----------------

**LOCATION OF RELEASE**

Unit Letter <b>A</b>	Section <b>I</b>	Township <b>31N</b>	Range <b>13W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
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Latitude **36.933175** Longitude **-108.149058**

**NATURE OF RELEASE**

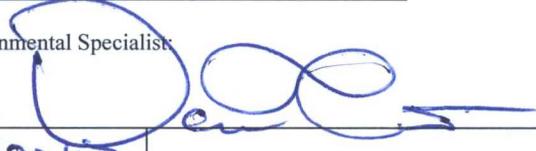
Type of Release: <b>Natural Gas</b>	Volume of Release: <b>156.6 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>08/29/2017 at 10:00 AM</b>	Date and Hour of Discovery: <b>08/29/2017 at 3:30 PM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Cory Smith and Vanessa Fields</b>	
By Whom? <b>Kijun Hong</b>	Date and Hour: <b>8/30/2017 at 12:39 PM</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	

If a Watercourse was Impacted, Describe Fully.\*  
**NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**The inlet scrubber dump valve to the tanks opened and never closed. Valve was blocked in immediately upon discover. Valve has been repaired.**

Describe Area Affected and Cleanup Action Taken.\*  
**There were no liquids associated with this release. No cleanup actions necessary.**

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>9/22/17</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>09/12/2017</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

**NVF 1724828441**

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

Form C-141  
Revised August 8, 2011

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

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

### Release Notification and Corrective Action

#### OPERATOR

Initial Report     Final Report

Name of Company: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>MN Galt J-2</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No.
---------------------------	---------------	-----------------

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>D</b>	<b>6</b>	<b>27N</b>	<b>10W</b>					<b>San Juan</b>

Latitude **36.61023** Longitude **-107.94244**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>80 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>08/10/2017 at 9:00 AM</b>	Date and Hour of Discovery: <b>08/10/2017 at 9:00 AM</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>	
By Whom? <b>NA</b>	Date and Hour: <b>NA</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	
If a Watercourse was Impacted, Describe Fully.* <b>NA</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>Natural gas released from a pipeline leak. The leak has been repaired.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Leak has been excavated and repaired. All impacts have been remediated. Please see attached form and sampling results for further information.</b>		
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>10/3/2017</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>10/2/2017</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

**NVF1727637643**

**OIL CONS. DIV DIST. 3**  
**OCT 02 2017**

**Remediation Excavation and Sampling Form**

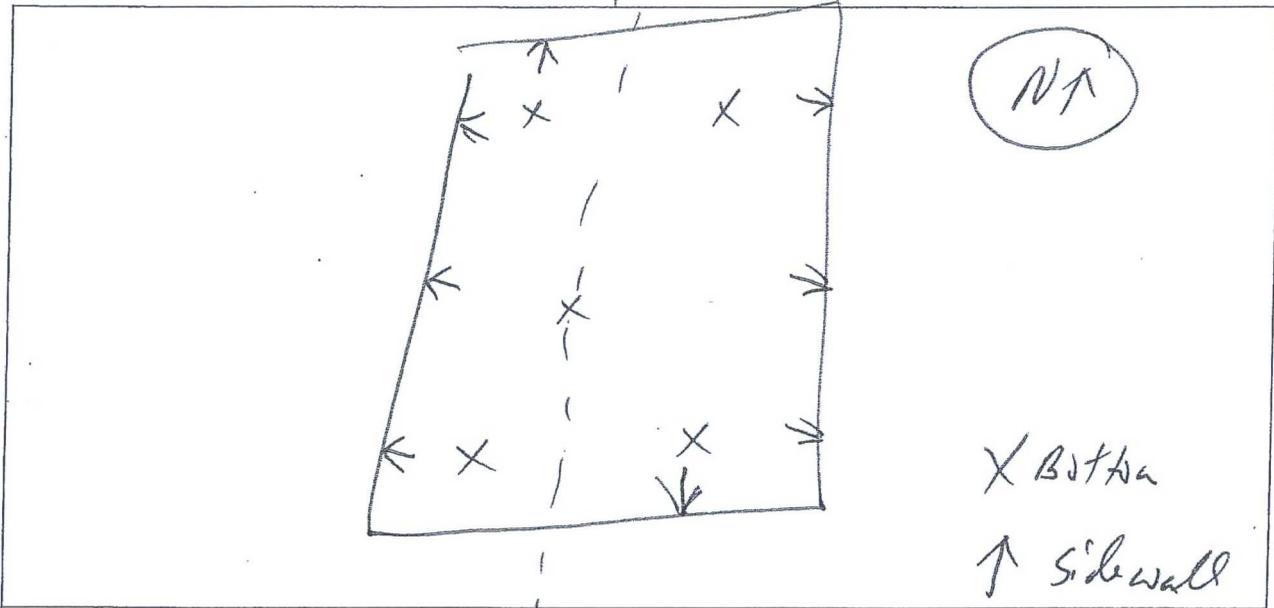
Site Name MN Galt J-2

**Excavation Dimensions (feet)**

16' Length 9' Width 7' Depth

**Excavation Diagram and Sample Locations**

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



**Sample Information**

OCD Witness Sampling Yes or No

Agency(s) Representative(s) \_\_\_\_\_

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
001	8/25/17	Composite	Sidewall	101 ppm
002	8/25/17	Composite	Bottom	153 ppm



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)

September 01, 2017

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

RE: MN Galt J-2 Line Leak

OrderNo.: 1708F64

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/29/2017 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 white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



Analytical Report

Lab Order 1708F64

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Bottom

Project: MN Galt J-2 Line Leak

Collection Date: 8/25/2017 10:40:00 AM

Lab ID: 1708F64-002

Matrix: SOIL

Received Date: 8/29/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/29/2017 11:07:54 AM	33600
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/29/2017 10:26:53 AM	33596
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/29/2017 10:26:53 AM	33596
Surr: DNOP	96.8	70-130		%Rec	1	8/29/2017 10:26:53 AM	33596
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/29/2017 10:48:42 AM	33586
Surr: BFB	76.4	54-150		%Rec	1	8/29/2017 10:48:42 AM	33586
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.018		mg/Kg	1	8/29/2017 10:48:42 AM	33586
Toluene	ND	0.036		mg/Kg	1	8/29/2017 10:48:42 AM	33586
Ethylbenzene	ND	0.036		mg/Kg	1	8/29/2017 10:48:42 AM	33586
Xylenes, Total	ND	0.073		mg/Kg	1	8/29/2017 10:48:42 AM	33586
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	8/29/2017 10:48:42 AM	33586

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
	PQL Practical Quantitative Limit	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#: 1708F64

01-Sep-17

Client: Williams Field Services

Project: MN Galt J-2 Line Leak

Sample ID	MB-33600	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	33600	RunNo:	45280					
Prep Date:	8/29/2017	Analysis Date:	8/29/2017	SeqNo:	1434989	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-33600	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	33600	RunNo:	45280					
Prep Date:	8/29/2017	Analysis Date:	8/29/2017	SeqNo:	1434990	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.4	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1708F64

01-Sep-17

Client: Williams Field Services

Project: MN Galt J-2 Line Leak

Sample ID	<b>LCS-33596</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33596</b>	RunNo:	<b>45262</b>					
Prep Date:	<b>8/29/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1433905</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	73.2	114			
Surr: DNOP	4.4		5.000		87.1	70	130			

Sample ID	<b>MB-33596</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33596</b>	RunNo:	<b>45262</b>					
Prep Date:	<b>8/29/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1433906</b>	Units:	<b>mg/Kg</b>			
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	9.2		10.00		92.1	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  
PQL Practical Quantitative Limit  
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#: 1708F64

01-Sep-17

Client: Williams Field Services

Project: MN Galt J-2 Line Leak

Sample ID	<b>MB-33586</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33586</b>	RunNo:	<b>45278</b>					
Prep Date:	<b>8/28/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1434463</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	750		1000		75.1	54	150			

Sample ID	<b>LCS-33586</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33586</b>	RunNo:	<b>45278</b>					
Prep Date:	<b>8/28/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1434464</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.9	76.4	125			
Surr: BFB	870		1000		87.2	54	150			

### 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1708F64

01-Sep-17

Client: Williams Field Services

Project: MN Galt J-2 Line Leak

Sample ID	<b>MB-33586</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33586</b>	RunNo:	<b>45278</b>					
Prep Date:	<b>8/28/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1434472</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	<b>LCS-33586</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33586</b>	RunNo:	<b>45278</b>					
Prep Date:	<b>8/28/2017</b>	Analysis Date:	<b>8/29/2017</b>	SeqNo:	<b>1434473</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	80	120			
Toluene	1.1	0.050	1.000	0	111	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.3	0.10	3.000	0	112	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	66.6	132			

### 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
- PQL Practical Quantitative Limit
- 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: 1708F64

RcptNo: 1

Received By: **Isaiah Ortiz** 8/29/2017 8:00:00 AM  
 Completed By: **Erin Melendrez** 8/29/2017 8:31:09 AM  
 Reviewed By: **JAO** 8-29-17

*IO*  
*EM*

**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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	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

SEP 06 2017 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 Drive	Telephone No. 505-632-4807
Facility Name Royce Canyon Former Drip Tank Location	Facility Type Former Tank Battery
Surface Owner Private	Mineral Owner
API No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	11	29N	6W					San Juan

Latitude 36.741548° N Longitude -107.43981° W

**NATURE OF RELEASE**

Type of Release Petroleum Hydrocarbons	Volume of Release unknown	Volume Recovered none so far
Source of Release Historical Operations	Date and Hour of Occurrence Unknown	Date and Hour of Discovery June 27, 2017
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. Not Applicable	
If a Watercourse was Impacted, Describe Fully.* Not Applicable		
Describe Cause of Problem and Remedial Action Taken.* Williams discovered an area impacted by historical operations. A five-point composite soil samples was taken on October 5, 2015. On August 11, 2017, potholes were advanced to approximately 4-5 feet bgs in the corners of the excavation. Visual impacts were noted in the northeast corner of the site.		
Describe Area Affected and Cleanup Action Taken.* The affected area is a former drip tank battery. The attached delineation plan contains Williams' plans to assess the site impacts. Based on the results, Williams will propose an appropriate remediation strategy.		
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:	OIL CONSERVATION DIVISION	
Printed Name: Michael Hannan	Approved by Environmental Specialist:	
Title: Engineer, Sr.	Approval Date: 9/13/17	Expiration Date:
E-mail Address: michael.hannan@williams.com	Conditions of Approval: See Attached	Attached <input checked="" type="checkbox"/>
Date: 9/5/2017 Phone: 505-632-4807		

\* Attach Additional Sheets If Necessary

#NCS1725641856 3R-1013

## Smith, Cory, EMNRD

---

**From:** Smith, Cory, EMNRD  
**Sent:** Wednesday, September 13, 2017 11:49 AM  
**To:** 'Galer, Aaron'  
**Cc:** Hannan, Michael; Fields, Vanessa, EMNRD; Powell, Brandon, EMNRD; Webre, Matt  
**Subject:** RE: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan  
**Attachments:** C-141 Conditions Royce Canyon Williams.pdf

Aaron,

OCD has approved Williams proposed delineation plan for the Royce Canyon Former Drip Tank Location received on 9/6/17 with the following conditions of approval. These conditions of approval will be attached to the hard copy.

### Conditions of Approval:

- Following the NMOCD Guidelines for Remediation's of Leaks, Spills and Releases the remediation's levels for soils at the Royce Canyon Former Drip Tank Location are as follows 10 mg/kg Benzene, 50 mg/kg BTEX and 1,000 mg/kg TPH
- Williams will fully delineate the release both horizontally and vertically. Boreholes that exceeded 100ppm OVM or exhibit heavy staining and/or apparent hydrocarbon impacts will be considered impacted until sampled.
- Delineation must be completed by November 13, 2017.
- Williams will provide the OCD at least 72 hour but no more than 1 week notification prior to the start of delineation activities.
- Within 30 days of completion of delineation Williams will submit to the OCD a delineation report and proposed alternative remediation plan.

Please let me know if you have any questions.

Thank you,

Cory Smith  
Environmental Specialist  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410  
(505)334-6178 ext 115  
cory.smith@state.nm.us

-----Original Message-----

From: Galer, Aaron [mailto:Aaron.Galer@Williams.com]  
Sent: Tuesday, September 5, 2017 3:37 PM  
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>  
Cc: Hannan, Michael <Michael.Hannan@Williams.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Webre, Matt

<Matt.Webre@Williams.com>

Subject: Re: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan

I will have a corrected figure submitted to you tomorrow.

> On Sep 5, 2017, at 2:51 PM, Smith, Cory, EMNRD <Cory.Smith@state.nm.us> wrote:

>

> Aaron,

>

> The plan attached to the original email does not show the extent of the excavation in figure 1 nor does it detail the size in the document. The proposed boreholes shown in figure 1 are approximately 50' apart according to the scale.

>

> Cory Smith

> Environmental Specialist

> Oil Conservation Division

> Energy, Minerals, & Natural Resources

> 1000 Rio Brazos, Aztec, NM 87410

> (505)334-6178 ext 115

> cory.smith@state.nm.us<mailto:cory.smith@state.nm.us>

>

> From: Galer, Aaron [mailto:Aaron.Galer@Williams.com]

> Sent: Tuesday, September 5, 2017 2:26 PM

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

> Cc: Hannan, Michael <Michael.Hannan@Williams.com>; Fields, Vanessa,

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

> <Brandon.Powell@state.nm.us>; Webre, Matt <Matt.Webre@Williams.com>

> Subject: Re: [EXTERNAL] RE: Royce Canyon Former Drip Delineation Plan

>

> Cory,

>

> I'll be managing both of these projects moving forward. No samples were collected on August 11th. As reported in the delineation plan, potholes were advanced in the four corners of the excavation and visual observations were made. We intend to advance the initial borings approximately 15 feet outside the previous excavation (shown on the figure). If those do not show obvious impacts, we may chose to step in to reduce the size of the remedial area. As far as schedule, we'd like to coordinate this work with the Dogie and Jicarilla site delineations planned for later this month. Let me know if our plan is sufficient.

>

>

> On Sep 5, 2017, at 1:54 PM, Smith, Cory, EMNRD

<Cory.Smith@state.nm.us<mailto:Cory.Smith@state.nm.us>> wrote:

> Michael,

>

> Thank you for the update Vanessa will be your contact for the Trunk S/Trunk D/ F-16 Lateral for future communications for the Royce Canyon site I will be your contact.

>

> I have a few questions below.

>

- >
- > \* I was under the impression based of our previous phone calls that there were samples collected on Aug 11, 2017?
- > \* Where are the Aug 11, 2017 potholes located?
- > \* Williams initial proposed BH are approximately 50' offset from each other does Williams plan to step in for further delineation if the BH's show no obvious signs of impacts?
- > \* Does Williams have a proposed timeline to start delineation activities as there is none mentioned in the delineation plan?

>

> Thanks you,

>

> Cory Smith  
> Environmental Specialist  
> Oil Conservation Division  
> Energy, Minerals, & Natural Resources  
> 1000 Rio Brazos, Aztec, NM 87410  
> (505)334-6178 ext 115  
> cory.smith@state.nm.us<mailto:cory.smith@state.nm.us>

>

> From: Hannan, Michael [mailto:Michael.Hannan@Williams.com]  
> Sent: Tuesday, September 5, 2017 1:17 PM  
> To: Fields, Vanessa, EMNRD  
> <Vanessa.Fields@state.nm.us<mailto:Vanessa.Fields@state.nm.us>>  
> Cc: Smith, Cory, EMNRD  
> <Cory.Smith@state.nm.us<mailto:Cory.Smith@state.nm.us>>; Powell,  
> Brandon, EMNRD  
> <Brandon.Powell@state.nm.us<mailto:Brandon.Powell@state.nm.us>>;  
> Webre, Matt <Matt.Webre@Williams.com<mailto:Matt.Webre@Williams.com>>;  
> Galer, Aaron  
> <Aaron.Galer@Williams.com<mailto:Aaron.Galer@Williams.com>>  
> Subject: Royce Canyon Former Drip Delineation Plan

>

> Vanessa,

>

> Please find attached an initial C-141 with a delineation plan for the above referenced site. A hard copy will be hand-delivered to your office by COB today.

>

> Regards,  
> Mike

>

>

>

> <image002.png><http://co.williams.com/>Michael S. Hannan, P.E. |  
> Williams | Engineer, Sr. | FCA Environmental Services  
> Office: 505-632-4807 | Cell: 505-215-7274 | 1755 Arroyo Dr.,  
> Bloomfield, NM 87402  
> <image001.png><http://co.williams.com/williams/careers/><image003.png>  
> <https://urldefense.proofpoint.com/v2/url?u=https-3A\_\_www.facebook.com

> \_WilliamsCareers&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q\_A&r=yU85Md5bQIPFzlfyD  
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> ps://urldefense.proofpoint.com/v2/url?u=https-3A\_\_twitter.com\_Williams  
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> <image007.png><https://urldefense.proofpoint.com/v2/url?u=http-3A\_\_www  
> .linkedin.com\_company\_50711-3Ftrk-3Dtyah&d=DwMFAg&c=-rOy2AjDSjLZM5Ky93  
> 2q\_A&r=yU85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8  
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> w.youtube.com\_user\_WilliamsEnergyCo&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q\_A&  
> r=yU85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMi  
> B-0wLb3bff1D0Z71uRa0U&s=dFN3IN2MBRaT7WGYrmwtJeeh-296sSGeF\_01pbb7uxs&e=  
> >  
> <image011.png><https://urldefense.proofpoint.com/v2/url?u=https-3A\_\_ww  
> w.instagram.com\_williamsenergy\_&d=DwMFAg&c=-rOy2AjDSjLZM5Ky932q\_A&r=yU  
> 85Md5bQIPFzlfyD9GYP-25QJQ7ui3kuRJ7JcXEmyQ&m=INS0tKUg1oMYMUIX8omEMiB-0w  
> Lb3bff1D0Z71uRa0U&s=TEd4slz5Yge2bWWGHv9qr3Frw01um4KwnPuPpQG4qv4&e=>  
> <image013.jpg><https://blog.williams.com/>

>  
> If you have received this message in error, please reply to advise the sender of the error and then  
immediately delete this message.

>  
> \_\_\_\_\_  
> This email originates outside of Williams. Use caution if this message contains attachments, links or requests  
for information.

> \_\_\_\_\_  
> <Rouce Canyon figure 1.png>

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 9/6/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NCS172564856 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in Aztec on or before N/A. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us



COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental, Inc.

848 East 2<sup>nd</sup> Avenue  
Durango, Colorado 81301  
T 970.385.1096 / F 970.385.1873

September 1, 2017

Ms. Vanessa Fields  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**OIL CONS. DIV DIST. 3**

**SEP 13 2017**

**RE: Proposed Impacted Soil Delineation Work Plan  
Royce Canyon Former Drip Tank Location  
Williams Four Corners LLC  
San Juan County, New Mexico**

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Williams Four Corners LLC (Williams), proposes the following work plan to address impacted soils at the Royce Canyon Former Drip Tank (Site) located in the southwest quarter of the northwest quarter of Section 11 within Township 29 North and Range 6 West in the San Juan Basin in San Juan County, New Mexico.

#### **BACKGROUND**

Soil at the Site is impacted by petroleum hydrocarbons due to a release from the former drip tank. Impacted soil was sampled on October 5, 2015, in a five-point composite sample from locations within the former secondary containment (Figure 1). Impact to soil in the excavation area is characterized by a concentration of 1,700 milligram per kilogram (mg/kg) total petroleum hydrocarbons (TPH) - diesel range organics (DRO). No benzene, toluene, ethylbenzene, or total xylenes (BTEX) or TPH-gasoline range organics (GRO) and TPH-motor oil range organics (MRO) were detected. On August 11, 2017, potholes were advanced to approximately 4 feet to 5 feet below ground surface (bgs) in the corners of the excavation. Field observations indicated the northeast corner of the excavation was impacted, but no visual impact was observed in the northwest, southwest, or southeast corners.

Groundwater at the Site is estimated to be greater than 100 feet bgs. There is no water well or livestock well within 1,000 feet of the Site and the closest livestock well is approximately 1,459 feet northwest of the Site. The nearest surface water is a dry wash located approximately 258 feet southwest of the Site. Based on these criteria New Mexico Oil Conservation Division (NMOCD) site ranking for remediation action levels is a 10 and the TPH action level is 1,000 mg/kg.

#### **PROPOSED DELINEATION**

LTE proposes to install five new soil borings to delineate the impact to soil (Figure 1): one soil boring in the approximate location as the former drip tank excavation to delineate depth, and four boreholes outside of the former drip tank excavation. Each new soil boring will be advanced using a hollow stem auger and split spoon hammer sampler. Soil samples will be collected every five feet and logged by an LTE geologist using the Unified Soil Classification System (USCS). Each



five-foot interval, as well as any soil that is stained or has a hydrocarbon odor, will be screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID). Soil samples with the highest PID reading and a bottom hole soil sample will be collected from each borehole to be submitted to a certified laboratory for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH –GRO, DRO, and MRO by EPA Method 8015. Additional soil borings will be advanced radially in approximately 50-foot intervals from any soil boring demonstrating significant evidence of hydrocarbon impacts. The soil borings will be advanced to below the extent of soil impacted above NMOCD standards based on site ranking.

LTE will complete all work in accordance with industry-accepted practices. LTE will survey the locations of the soil borings with a Trimble® GeoExplorer® 6000 series Global Positioning System (GPS) to determine the latitude and longitude. Field activities will be documented in a bound field book and soil descriptions will be documented on a boring log. Observations to be noted on the boring log will include, but not be limited to, lithology, moisture content, staining, soil boring depth, latitude, longitude, project number, and comments. All down-hole drilling equipment will be thoroughly decontaminated prior to each use. If impacted soil is identified within a borehole, the impacted cuttings will be drummed and transported to the Envirotech, Inc. Landfarm in Hilltop, New Mexico.

#### **REMEDIATION**

Williams will prepare a report documenting all field activities and describing results. The report will include site maps and a table of laboratory analytical results. Based on the results of the delineation, Williams will propose an appropriate remediation strategy.

LTE appreciates the opportunity to provide this proposed work plan to the NMOCD. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at [aager@ltenv.com](mailto:aager@ltenv.com) or Aaron Galer at Williams at (801) 584-6746 or [Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com).

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Ashley L. Ager". The signature is written in a cursive, flowing style.

Ashley Ager  
Senior Geologist

Attachment

Figure 1 – Site Location

FIGURE





IMAGE COURTESY OF ESRI

**LEGEND**

-  PROPOSED SOIL BORING
-  AUGUST 2017 VISUAL OBSERVATION LOCATIONS (5 FT TRENCH)

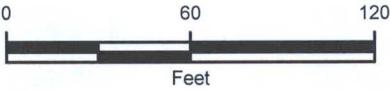


FIGURE 1  
SITE MAP  
ROYCE CANYON FORMER DRIP TANKS  
RIO ARRIBA COUNTY, NEW MEXICO  
WILLIAMS FOUR CORNERS, LLC



P:\Williams Four Corners\GIS\MXD\\_FORMER DRIP TANK\\_BILL SMITH.mxd



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)

October 13, 2015

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

RE: Bill Smith 5 Point Composite

OrderNo.: 1510207

Dear Kelsey Christiansen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/6/2015 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1510207

Date Reported: 10/13/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Bill Smith 5 Point Composite

Project: Bill Smith 5 Point Composite

Collection Date: 10/5/2015 11:30:00 AM

Lab ID: 1510207-001

Matrix: SOIL

Received Date: 10/6/2015 8:11:00 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	10/9/2015 2:00:34 PM	21767
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	1700	98		mg/Kg	10	10/9/2015 4:55:21 AM	21679
Surr: DNOP	0	57.9-140	S	%REC	10	10/9/2015 4:55:21 AM	21679
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Surr: BFB	90.0	75.4-113		%REC	1	10/7/2015 9:12:49 PM	21694
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Toluene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Ethylbenzene	ND	0.046		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Xylenes, Total	ND	0.093		mg/Kg	1	10/7/2015 9:12:49 PM	21694
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/7/2015 9:12:49 PM	21694

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#: 1510207

13-Oct-15

**Client:** Williams Field Services  
**Project:** Bill Smith 5 Point Composite

Sample ID	<b>MB-21767</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21767</b>	RunNo:	<b>29458</b>					
Prep Date:	<b>10/9/2015</b>	Analysis Date:	<b>10/9/2015</b>	SeqNo:	<b>895859</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	1.5								
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Sample ID	<b>LCS-21767</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21767</b>	RunNo:	<b>29458</b>					
Prep Date:	<b>10/9/2015</b>	Analysis Date:	<b>10/9/2015</b>	SeqNo:	<b>895860</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	14	1.5	15.00	0	93.0	90	110			
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### 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#: 1510207  
13-Oct-15

**Client:** Williams Field Services  
**Project:** Bill Smith 5 Point Composite

Sample ID <b>MB-21652</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>21652</b>	RunNo: <b>29273</b>								
Prep Date: <b>10/5/2015</b>	Analysis Date: <b>10/5/2015</b>	SeqNo: <b>890900</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.9		10.00		78.7	57.9	140			

Sample ID <b>LCS-21652</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>21652</b>	RunNo: <b>29273</b>								
Prep Date: <b>10/5/2015</b>	Analysis Date: <b>10/5/2015</b>	SeqNo: <b>890901</b>	Units: <b>%REC</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.7	57.9	140			

Sample ID <b>MB-21679</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>21679</b>	RunNo: <b>29273</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/8/2015</b>	SeqNo: <b>894236</b>	Units: <b>mg/Kg</b>							
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		105	57.9	140			

Sample ID <b>LCS-21679</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>21679</b>	RunNo: <b>29273</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/8/2015</b>	SeqNo: <b>894238</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	57.4	139			
Surr: DNOP	5.6		5.000		112	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#: 1510207  
13-Oct-15

**Client:** Williams Field Services  
**Project:** Bill Smith 5 Point Composite

Sample ID <b>MB-21694</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>21694</b>	RunNo: <b>29364</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/7/2015</b>	SeqNo: <b>893258</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.0	75.4	113			

Sample ID <b>LCS-21694</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>21694</b>	RunNo: <b>29364</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/7/2015</b>	SeqNo: <b>893259</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	79.6	122			
Surr: BFB	960		1000		95.7	75.4	113			

### 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#: 1510207

13-Oct-15

**Client:** Williams Field Services  
**Project:** Bill Smith 5 Point Composite

Sample ID <b>MB-21694</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>21694</b>	RunNo: <b>29364</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/7/2015</b>	SeqNo: <b>893314</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	1.0		1.000		105	80	120			

Sample ID <b>LCS-21694</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>21694</b>	RunNo: <b>29364</b>								
Prep Date: <b>10/6/2015</b>	Analysis Date: <b>10/7/2015</b>	SeqNo: <b>893315</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.8	80	120			
Toluene	0.93	0.050	1.000	0	93.5	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.4	80	120			
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

**Sample Log-In Check List**

Client Name: WILLIAMS FIELD SERVI Work Order Number: 1510207 RcptNo: 1

Received by/date: *[Signature]* 10/06/15

Logged By: Lindsay Mangin 10/6/2015 8:11:00 AM *[Signature]*

Completed By: Lindsay Mangin 10/6/2015 10:03:08 AM *[Signature]*

Reviewed By: CS 10/06/15

**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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	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 April 3, 2017

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 Horse Canyon	Facility Type Compressor Station

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

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	27	30N	9W					Rio Arriba

Latitude 36.787621° N Longitude -107.761609° W NAD83

*San Juan*

**NATURE OF RELEASE**

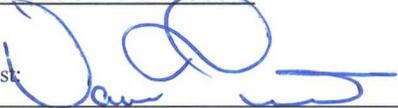
Type of Release Triethylene Glycol (TEG) mixed with rainwater and possibly minute amount of motor oil	Volume of Release 5-10 bbls	Volume Recovered 0 bbls
Source of Release Wastewater Evaporator Overflow Tank Secondary Containment	Date and Hour of Occurrence 7/27/2017 unknown hour	Date and Hour of Discovery 07/28/2017 11:45 AM
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) Whitney Thomas (BLM); voice mail	<b>OIL CONS. DIV DIST. 3</b>
By Whom? Michael Hannan	Date and Hour 07/28/2017 12:30 PM (NMOCD) 07/28/2017 12:45 PM (BLM)	<b>AUG 17 2017</b>
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.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Upon arrival at the Horse Canyon Compressor Station on 7/28/17 at approximately 11:45 a.m., an offsite release was discovered. It was quickly ascertained that the release source was the wastewater evaporator overflow tank containment. The overflow tank contained a mixture of spent triethylene glycol (TEG), rainwater, and a possibly a minute amount of motor oil.  
Liquids were immediately removed from the tank and secondary containment area. An incident investigation was conducted on 07/31/2017 (the Monday following the discovery). The causes of the incident were determined to be failure of both the wastewater evaporator and overflow tank high level switch shutoffs. Redesign of both systems has been completed and recurring preventive maintenance checks set up in the work order system. Additionally, procedures regarding managing the wastewater evaporation system have been revised. In addition to Williams' personnel, the revised procedures have been communicated to all water hauling companies that transport/offload wastewater to Horse Canyon.

Describe Area Affected and Cleanup Action Taken.\*  
Heavy precipitation the previous evening resulted in runoff that carried the material offsite for a distance of approximately 200 linear yards. A cleanup crew was immediately dispatched to the location and excavated visually contaminated soil. Approximately 130 cubic yards of excavated soil was disposed of in accordance with the applicable regulations. The NMOCD, in consultation with the BLM, directed sampling to take place on 08/01/2017 for the following constituents: BTEX, TPH (including MRO) and chlorides. The samples were to consist of a 5-point composite every 200 linear feet (i.e., one grab sample per 50 linear feet with every 4 samples being composited).  
On 08/01/2017 at approximately 10 a.m., personnel from the relevant parties (i.e., Williams, NMOCD, BLM) arrived onsite to direct and observe sampling being conducted by Williams' contractor LT Environmental, Inc. (LTE). The collected samples were non-detect for all constituents for which analytical testing was conducted. LTE's report, including the lab results, is 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: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Michael Hannan		Approved by Environmental Specialist: 	
Title: Engineer, Sr.		Approval Date: 8/31/2017	Expiration Date:
E-mail Address: michael.hannan@williams.com		Conditions of Approval: -	Attached <input type="checkbox"/>
Date: 08/14/2017	Phone: (505) 632-4807		

\* Attach Additional Sheets If Necessary

NVF1724339796



August 11, 2017

Mr. Michael Hannan  
Williams Four Corners LLC  
188 County Road 4900  
Bloomfield, New Mexico 87413

**RE: Soil Sampling Report  
Williams Four Corners LLC  
Horse Canyon CDP Release  
San Juan County, New Mexico**

Dear Mr. Hannan:

LT Environmental, Inc. (LTE) is pleased to present to Williams Four Corners LLC (Williams) the following letter report detailing the collection of soil samples on and off site at the Horse Canyon CDP in Section 27 of Township 30 North, Range 9 West in San Juan County, New Mexico (Figure 1). The purpose of the investigation was to assess impacts to soil after an evaporator and an overflow tank shutoff switch failed causing a release into a containment area. The release overflowed the containment and flowed across the pad down an unnamed drainage on July 28, 2017. LTE met Michael Hannan (Williams), Vanessa Fields (New Mexico Oil and Gas Conservation (NMOCD)), and Whitney Thomas (Bureau of Land Management (BLM) Farmington Field Office) to investigate potential impact to soil on August 1, 2017.

## **SOIL SAMPLING**

LTE collected four soil samples at the Site on August 1, 2017. Three samples (CS-01, CS-02, and CS-03) were five-point composite samples with the aliquots collected approximately every 50 feet (Figure 2). Equal parts were collected from each location and mixed thoroughly in a Ziploc<sup>®</sup> bag. A grab sample (SS-01) was collected at the terminus (as indicated by Williams) of the release. Field screening of each sample was conducted with a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, August 13, 1993. Field screening results are summarized in Table 1. Soil samples were collected in pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were delivered at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analytical Laboratory Sciences (HEAL) in Albuquerque, New Mexico. The soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) 8021B, chloride by USEPA method 300.0, and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by USEPA Method 8015D.



## FIELD AND ANALYTICAL RESULTS

No visual staining or hydrocarbon odors were observed in any samples collected. Field screening results were 0.0 parts per million (ppm) in all samples except CS-01 which had a reading of 0.7 ppm. Laboratory analytical results for all soil samples reported all analytes below laboratory detection limits. Analytical data are presented in Table 1, and the complete HEAL laboratory analytical report is included as Attachment 1.

## CONCLUSIONS

Laboratory analytical results of soil samples collected within the release footprint indicate no impact to soil exists at the Site as a result of the release.

LTE appreciates the opportunity to provide this report to Williams. If you have any questions or comments regarding this plan, do not hesitate to contact me at (970) 385-1096 or via email at [bherb@ltenv.com](mailto:bherb@ltenv.com).

Sincerely,  
LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Brooke Herb'.

Brooke Herb  
Project Geologist

A handwritten signature in black ink that reads 'Ashley L. Ager'.

Ashley L. Ager, M.S.  
Senior Geologist

Attachments (4)



**FIGURES**

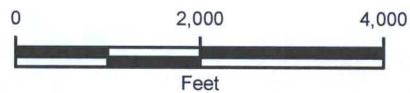




IMAGE COURTESY OF ESRI/USGS

**LEGEND**

 SITE LOCATION



**FIGURE 1**  
**SITE LOCATION MAP**  
**HORSE CANYON CDP RELEASE**  
**SEC 27 T30N R9W**  
**SAN JUAN COUNTY, NEW MEXICO**  
**WILLIAMS FOUR CORNERS LLC**



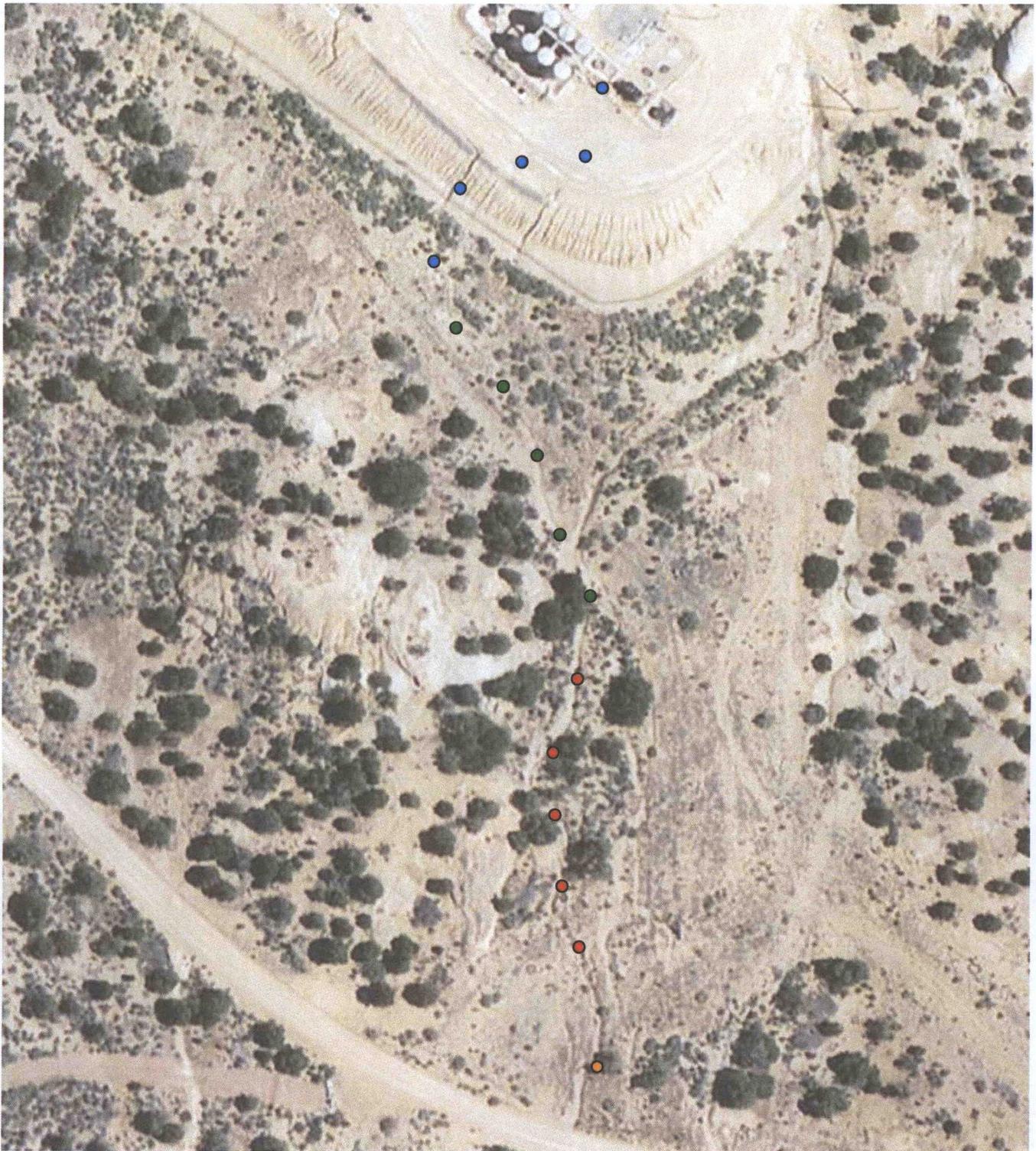


IMAGE COURTESY OF ESRI

**LEGEND**

- SOIL SAMPLE SS-01
- COMPOSITE SOIL SAMPLE CS-01
- COMPOSITE SOIL SAMPLE CS-02
- COMPOSITE SOIL SAMPLE CS-03

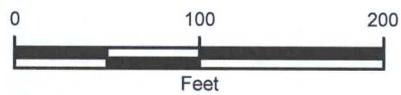


FIGURE 2  
 SITE MAP  
 HORSE CANYON CDP RELEASE  
 SEC 27 T30N R9W  
 SAN JUAN COUNTY, NEW MEXICO  
 WILLIAMS FOUR CORNERS LLC



TABLE



**TABLE 1  
SOIL LABORATORY ANALYTICAL RESULTS**

**HORSE CANYON CDP RELEASE  
SAN JUAN COUNTY, NEW MEXICO  
WILLIAMS FOUR CORNERS LLC**

Sample Name	Sample Date	Field Screening (ppm)	Chloride (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)
<b>NMOCD Action Level</b>		NE	NE	10	NE	NE	NE	100		
CS-01	8/1/2017	0.7	<30	<0.024	<0.048	<0.048	<0.095	<4.8	<9.8	<49
CS-02	8/1/2017	0.0	<30	<0.024	<0.047	<0.047	<0.095	<4.7	<9.2	<46
CS-03	8/1/2017	0.0	<30	<0.023	<0.046	<0.046	<0.093	<4.6	<9.6	<48
SS-01	8/1/2017	0.0	<30	<0.023	<0.047	<0.047	<0.093	<4.7	<9.6	<48

**Notes:**

- DRO - diesel range organics
- GRO - gasoline range organics
- mg/kg - milligrams per kilograms
- MRO - motor oil range organics
- NE - Not Established
- NMOCD - New Mexico Oil Conservation Division
- ppm - parts per million
- TPH - total petroleum hydrocarbons
- < - indicates result is less than laboratory reporting detection limit



**ATTACHMENT 1**  
**LABORATORY 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 10, 2017

Brooke Herb  
Williams Four Corners  
188 CR 4900  
Bloomfield, NM 87413  
TEL: (505) 632-4442  
FAX

RE: Horse Canyon CDP

OrderNo.: 1708196

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/2/2017 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1708196

Date Reported: 8/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: CS-01

Project: Horse Canyon CDP

Collection Date: 8/1/2017 10:30:00 AM

Lab ID: 1708196-001

Matrix: SOIL

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/7/2017 3:30:03 PM	33206
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/7/2017 11:33:08 AM	33181
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/7/2017 11:33:08 AM	33181
Surr: DNOP	87.5	70-130		%Rec	1	8/7/2017 11:33:08 AM	33181
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/7/2017 9:53:59 AM	33180
Surr: BFB	94.4	54-150		%Rec	1	8/7/2017 9:53:59 AM	33180
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/7/2017 9:53:59 AM	33180
Toluene	ND	0.048		mg/Kg	1	8/7/2017 9:53:59 AM	33180
Ethylbenzene	ND	0.048		mg/Kg	1	8/7/2017 9:53:59 AM	33180
Xylenes, Total	ND	0.095		mg/Kg	1	8/7/2017 9:53:59 AM	33180
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	8/7/2017 9:53:59 AM	33180

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
PQL	Practical Quantitative Limit	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 1708196

Date Reported: 8/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: CS-02

Project: Horse Canyon CDP

Collection Date: 8/1/2017 10:40:00 AM

Lab ID: 1708196-002

Matrix: SOIL

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/7/2017 4:07:17 PM	33206
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/7/2017 11:57:48 AM	33181
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/7/2017 11:57:48 AM	33181
Surr: DNOP	85.4	70-130		%Rec	1	8/7/2017 11:57:48 AM	33181
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/7/2017 11:53:46 AM	33180
Surr: BFB	90.2	54-150		%Rec	1	8/7/2017 11:53:46 AM	33180
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	8/7/2017 11:53:46 AM	33180
Toluene	ND	0.047		mg/Kg	1	8/7/2017 11:53:46 AM	33180
Ethylbenzene	ND	0.047		mg/Kg	1	8/7/2017 11:53:46 AM	33180
Xylenes, Total	ND	0.095		mg/Kg	1	8/7/2017 11:53:46 AM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	8/7/2017 11:53:46 AM	33180

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
	PQL Practical Quantitative Limit	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 1708196

Date Reported: 8/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: CS-03

Project: Horse Canyon CDP

Collection Date: 8/1/2017 10:50:00 AM

Lab ID: 1708196-003

Matrix: SOIL

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/7/2017 4:19:42 PM	33206
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/7/2017 12:22:41 PM	33181
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/7/2017 12:22:41 PM	33181
Surr: DNOP	87.9	70-130		%Rec	1	8/7/2017 12:22:41 PM	33181
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/7/2017 1:05:47 PM	33180
Surr: BFB	89.8	54-150		%Rec	1	8/7/2017 1:05:47 PM	33180
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	8/7/2017 1:05:47 PM	33180
Toluene	ND	0.046		mg/Kg	1	8/7/2017 1:05:47 PM	33180
Ethylbenzene	ND	0.046		mg/Kg	1	8/7/2017 1:05:47 PM	33180
Xylenes, Total	ND	0.093		mg/Kg	1	8/7/2017 1:05:47 PM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	8/7/2017 1:05:47 PM	33180

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
	PQL Practical Quantitative Limit	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 1708196

Date Reported: 8/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Four Corners

Client Sample ID: SS-01

Project: Horse Canyon CDP

Collection Date: 8/1/2017 10:55:00 AM

Lab ID: 1708196-004

Matrix: SOIL

Received Date: 8/2/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	8/7/2017 4:32:06 PM	33206
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/7/2017 12:47:31 PM	33181
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/7/2017 12:47:31 PM	33181
Surr: DNOP	89.0	70-130		%Rec	1	8/7/2017 12:47:31 PM	33181
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/7/2017 1:29:50 PM	33180
Surr: BFB	87.9	54-150		%Rec	1	8/7/2017 1:29:50 PM	33180
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	8/7/2017 1:29:50 PM	33180
Toluene	ND	0.047		mg/Kg	1	8/7/2017 1:29:50 PM	33180
Ethylbenzene	ND	0.047		mg/Kg	1	8/7/2017 1:29:50 PM	33180
Xylenes, Total	ND	0.093		mg/Kg	1	8/7/2017 1:29:50 PM	33180
Surr: 4-Bromofluorobenzene	110	66.6-132		%Rec	1	8/7/2017 1:29:50 PM	33180

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
	PQL Practical Quantitative Limit	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#: 1708196

10-Aug-17

Client: Williams Four Corners

Project: Horse Canyon CDP

Sample ID	<b>MB-33206</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33206</b>	RunNo:	<b>44758</b>					
Prep Date:	<b>8/7/2017</b>	Analysis Date:	<b>8/7/2017</b>	SeqNo:	<b>1416566</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-33206</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33206</b>	RunNo:	<b>44758</b>					
Prep Date:	<b>8/7/2017</b>	Analysis Date:	<b>8/7/2017</b>	SeqNo:	<b>1416567</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	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
- PQL Practical Quantitative Limit
- 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#: 1708196

10-Aug-17

Client: Williams Four Corners

Project: Horse Canyon CDP

Sample ID	<b>MB-33181</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33181</b>	RunNo:	<b>44747</b>					
Prep Date:	<b>8/4/2017</b>	Analysis Date:	<b>8/7/2017</b>	SeqNo:	<b>1415031</b>	Units:	<b>mg/Kg</b>			
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	8.7		10.00		87.4	70	130			

Sample ID	<b>LCS-33181</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33181</b>	RunNo:	<b>44747</b>					
Prep Date:	<b>8/4/2017</b>	Analysis Date:	<b>8/7/2017</b>	SeqNo:	<b>1415235</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.9	73.2	114			
Surr: DNOP	4.0		5.000		79.2	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
- PQL Practical Quantitative Limit
- 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#: 1708196

10-Aug-17

Client: Williams Four Corners

Project: Horse Canyon CDP

Sample ID <b>MB-33180</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>33180</b>	RunNo: <b>44753</b>								
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>	SeqNo: <b>1415513</b>						Units: <b>mg/Kg</b>		
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		93.4	54	150			

Sample ID <b>LCS-33180</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>33180</b>	RunNo: <b>44753</b>								
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>	SeqNo: <b>1415514</b>						Units: <b>mg/Kg</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.3	76.4	125			
Surr: BFB	1000		1000		102	54	150			

Sample ID <b>1708196-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>CS-02</b>	Batch ID: <b>33180</b>	RunNo: <b>44753</b>								
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>	SeqNo: <b>1415517</b>						Units: <b>mg/Kg</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	25.00	0	73.6	77.8	128			S
Surr: BFB	1000		1000		101	54	150			

Sample ID <b>1708196-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>CS-02</b>	Batch ID: <b>33180</b>	RunNo: <b>44753</b>								
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>	SeqNo: <b>1415518</b>						Units: <b>mg/Kg</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	23.97	0	81.4	77.8	128	5.92	20	
Surr: BFB	980		958.8		102	54	150	0	0	

## 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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1708196

10-Aug-17

**Client:** Williams Four Corners

**Project:** Horse Canyon CDP

Sample ID <b>MB-33180</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>33180</b>		RunNo: <b>44753</b>							
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>		SeqNo: <b>1415540</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

Sample ID <b>LCS-33180</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>33180</b>		RunNo: <b>44753</b>							
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>		SeqNo: <b>1415541</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	66.6	132			

Sample ID <b>1708196-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>CS-01</b>	Batch ID: <b>33180</b>		RunNo: <b>44753</b>							
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>		SeqNo: <b>1415543</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.023	0.9124	0	90.8	80.9	132			
Toluene	0.84	0.046	0.9124	0.01010	91.4	79.8	136			
Ethylbenzene	0.85	0.046	0.9124	0.01516	91.8	79.4	140			
Xylenes, Total	2.6	0.091	2.737	0	95.5	78.5	142			
Surr: 4-Bromofluorobenzene	1.1		0.9124		119	66.6	132			

Sample ID <b>1708196-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>CS-01</b>	Batch ID: <b>33180</b>		RunNo: <b>44753</b>							
Prep Date: <b>8/4/2017</b>	Analysis Date: <b>8/7/2017</b>		SeqNo: <b>1415544</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.023	0.9311	0	91.3	80.9	132	2.64	20	
Toluene	0.86	0.047	0.9311	0.01010	91.4	79.8	136	1.96	20	
Ethylbenzene	0.87	0.047	0.9311	0.01516	91.5	79.4	140	1.71	20	
Xylenes, Total	2.7	0.093	2.793	0	95.0	78.5	142	1.47	20	
Surr: 4-Bromofluorobenzene	1.1		0.9311		113	66.6	132	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
- PQL Practical Quantitative Limit
- 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

**Sample Log-In Check List**

Client Name: WILLIAMS FOUR CORN

Work Order Number: 1708196

RcptNo: 1

Received By: Anne Thorne

8/2/2017 7:25:00 AM

*Anne Thorne*

Completed By: Anne Thorne

8/3/2017 8:56:26 AM

*Anne Thorne*

Reviewed By: *[Signature]*

8/4/17

**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° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# 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:

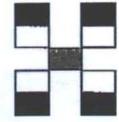
**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

# Chain-of-Custody Record

Client: Michael S. Hannan  
Williams Four Corners  
 Mailing Address: 1755 Anayo Dr  
Bloomfield, NM 87402  
 Phone #: (505) 215-7274  
 email or Fax#: \_\_\_\_\_  
 QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time:  
 Standard  Rush  
 Project Name:  
Horse Canyon CDP  
 Project #:  
034017003  
 Project Manager:  
Brooke Herb  
 Sampler: Michael A Wicker  
 On Ice:  Yes  No  
 Sample Temperature: 7.6 - 6.1 = 3.6



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

### Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (Gas only)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Release (V or N)	
8-1-17	1030	Soil	CS-01	14-02	Cool	1708196	X		X										X	
	1040	↓	CS-02	↓	↓	202	↓		↓										↓	
	1050	↓	CS-03	↓	↓	203	↓		↓										↓	
	1055	↓	SS-01	↓	↓	204	↓		↓										↓	

Date: 8-1-17 Time: 1210 Relinquished by: [Signature]  
 Received by: [Signature] Date: 8/1/17 Time: 1210  
 Date: 1814 Relinquished by: [Signature]  
 Received by: [Signature] Date: 08/02/17 Time: 0725

Remarks: Please cc: BHerb@LTEEnv.com  
MWicker@LTEEnv.com

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: <b>Williams Four Corners LLC</b>	Contact: <b>Kijun Hong</b>
Address: <b>1755 Arroyo Dr., Farmington, NM 87413</b>	Telephone No.: <b>(505) 632-4475</b>
Facility Name: <b>Reid B2E</b>	Facility Type: <b>Pipeline</b>

Surface Owner: <b>BLM</b>	Mineral Owner	BLM Project No. <b>NM 041899</b>
---------------------------	---------------	----------------------------------

#### LOCATION OF RELEASE

Unit Letter <b>G</b>	Section <b>31</b>	Township <b>29N</b>	Range <b>10W</b>	Feet from the	North/South Line	Feet from the	East/West Line	County <b>San Juan</b>
-------------------------	----------------------	------------------------	---------------------	---------------	------------------	---------------	----------------	---------------------------

Latitude **36.68480** Longitude **-107.92178**

#### NATURE OF RELEASE

Type of Release: <b>Natural Gas</b>	Volume of Release: <b>53 MCF</b>	Volume Recovered: <b>0 MCF</b>
Source of Release: <b>Pipeline</b>	Date and Hour of Occurrence: <b>07/05/2017 at 8:00 AM</b>	Date and Hour of Discovery: <b>07/05/2017 at 8:00 AM</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>NA</b>	
By Whom? <b>NA</b>	Date and Hour: <b>NA</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	
If a Watercourse was Impacted, Describe Fully.* <b>NA</b>		

Describe Cause of Problem and Remedial Action Taken.\*  
**Natural gas release from a pin hole leak in the pipeline discovered during a line leak survey. This section of pipe has been repaired.**

Describe Area Affected and Cleanup Action Taken.\*  
**Pipeline has been repaired and impacted area cleaned up. Please see attached documentation for further details.**

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>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Kijun Hong</b>	Approval Date: <b>10/31/17</b>	Expiration Date:
Title: <b>Environmental Specialist</b>	Conditions of Approval: <b>—</b>	
E-mail Address: <b>kijun.hong@williams.com</b>	Attached <input type="checkbox"/>	
Date: <b>09/07/2017</b> Phone: <b>(505) 632-4475</b>		

\* Attach Additional Sheets If Necessary

**NCS1721253535**

**OIL CONS. DIV DIST. 3**  
**SEP 12 2017**

**12**

### Remediation Excavation and Sampling Form

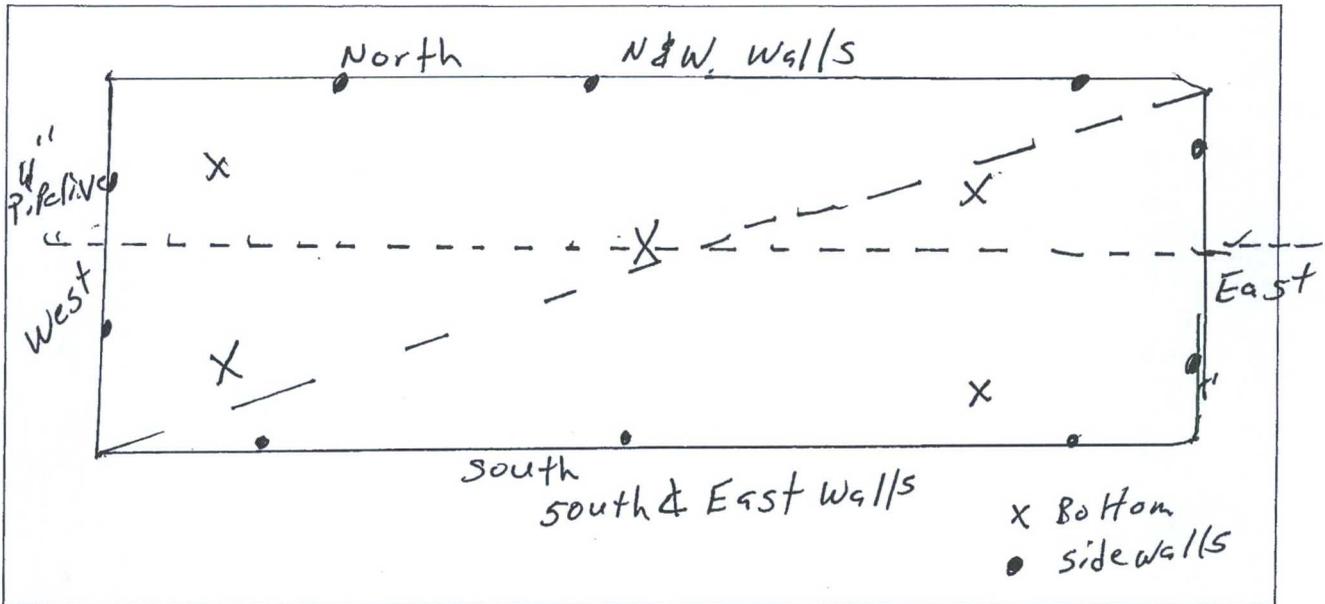
Site Name Reid B2E

**Excavation Dimensions (feet)**

25' Length 10' Width 9'-6" Depth

**Excavation Diagram and Sample Locations**

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



**Sample Information**

OCD Witness Sampling Yes or No

Agency(s) Representative(s) SPoKc with Corey Smith and Riccive the go ahead

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
001	7/21/17	Composite	N+W Sidewall	
002	7/21/17	Composite	S+E Sidewall	
003	7/21/17	Composite	Bottom	



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 02, 2017

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

RE: Reid B-2E

OrderNo.: 1707B82

Dear Kijun Hong:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/22/2017 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 light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1707B82

Date Reported: 8/2/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Reid B 2 E N&W Walls

Project: Reid B-2E

Collection Date: 7/21/2017 10:00:00 AM

Lab ID: 1707B82-001

Matrix: SOIL

Received Date: 7/22/2017 11:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	31	30		mg/Kg	20	7/28/2017 11:03:40 AM	33064
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/25/2017 4:59:11 PM	32977
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/25/2017 4:59:11 PM	32977
Surr: DNOP	80.2	70-130		%Rec	1	7/25/2017 4:59:11 PM	32977
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2017 6:43:27 PM	32967
Surr: BFB	93.2	54-150		%Rec	1	7/25/2017 6:43:27 PM	32967
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	7/25/2017 6:43:27 PM	32967
Toluene	ND	0.047		mg/Kg	1	7/25/2017 6:43:27 PM	32967
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2017 6:43:27 PM	32967
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2017 6:43:27 PM	32967
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	7/25/2017 6:43:27 PM	32967

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
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Williams Field Services

**Client Sample ID:** Reid B 2 E S&E Walls

**Project:** Reid B-2E

**Collection Date:** 7/21/2017 10:10:00 AM

**Lab ID:** 1707B82-002

**Matrix:** SOIL

**Received Date:** 7/22/2017 11:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/28/2017 11:40:54 AM	33064
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/25/2017 5:21:39 PM	32977
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2017 5:21:39 PM	32977
Surr: DNOP	87.4	70-130		%Rec	1	7/25/2017 5:21:39 PM	32977
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2017 7:07:36 PM	32967
Surr: BFB	90.8	54-150		%Rec	1	7/25/2017 7:07:36 PM	32967
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	7/25/2017 7:07:36 PM	32967
Toluene	ND	0.047		mg/Kg	1	7/25/2017 7:07:36 PM	32967
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2017 7:07:36 PM	32967
Xylenes, Total	ND	0.094		mg/Kg	1	7/25/2017 7:07:36 PM	32967
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	1	7/25/2017 7:07:36 PM	32967

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
PQL	Practical Quantitative Limit	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 1707B82

Date Reported: 8/2/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Reid B 2 E Bottom

Project: Reid B-2E

Collection Date: 7/21/2017 10:20:00 AM

Lab ID: 1707B82-003

Matrix: SOIL

Received Date: 7/22/2017 11:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Chloride	ND	30		mg/Kg	20	7/28/2017 12:05:43 PM	33064
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/25/2017 5:44:09 PM	32977
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/25/2017 5:44:09 PM	32977
Surr: DNOP	78.7	70-130		%Rec	1	7/25/2017 5:44:09 PM	32977
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2017 7:31:44 PM	32967
Surr: BFB	89.1	54-150		%Rec	1	7/25/2017 7:31:44 PM	32967
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	7/25/2017 7:31:44 PM	32967
Toluene	ND	0.047		mg/Kg	1	7/25/2017 7:31:44 PM	32967
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2017 7:31:44 PM	32967
Xylenes, Total	ND	0.094		mg/Kg	1	7/25/2017 7:31:44 PM	32967
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	7/25/2017 7:31:44 PM	32967

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
	PQL Practical Quantitative Limit	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#: 1707B82

02-Aug-17

**Client:** Williams Field Services

**Project:** Reid B-2E

Sample ID	<b>MB-33064</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33064</b>	RunNo:	<b>44581</b>					
Prep Date:	<b>7/28/2017</b>	Analysis Date:	<b>7/28/2017</b>	SeqNo:	<b>1410134</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-33064</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33064</b>	RunNo:	<b>44581</b>					
Prep Date:	<b>7/28/2017</b>	Analysis Date:	<b>7/28/2017</b>	SeqNo:	<b>1410135</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1707B82  
 02-Aug-17

**Client:** Williams Field Services  
**Project:** Reid B-2E

Sample ID <b>MB-32977</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>32977</b>	RunNo: <b>44468</b>								
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>	SeqNo: <b>1406389</b>	Units: <b>mg/Kg</b>							
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	9.8		10.00		98.3	70	130			

Sample ID <b>LCS-32977</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>32977</b>	RunNo: <b>44468</b>								
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>	SeqNo: <b>1406394</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.5	73.2	114			
Surr: DNOP	4.2		5.000		83.9	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
- PQL Practical Quantitative Limit
- 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#: 1707B82

02-Aug-17

Client: Williams Field Services

Project: Reid B-2E

Sample ID	<b>MB-32967</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>32967</b>	RunNo:	<b>44476</b>					
Prep Date:	<b>7/24/2017</b>	Analysis Date:	<b>7/25/2017</b>	SeqNo:	<b>1406616</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.4	54	150			

Sample ID	<b>LCS-32967</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>32967</b>	RunNo:	<b>44476</b>					
Prep Date:	<b>7/24/2017</b>	Analysis Date:	<b>7/25/2017</b>	SeqNo:	<b>1406617</b>	Units:	<b>mg/Kg</b>			
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	76.4	125			
Surr: BFB	970		1000		97.2	54	150			

## 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
- PQL Practical Quantitative Limit
- 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#: 1707B82

02-Aug-17

**Client:** Williams Field Services

**Project:** Reid B-2E

Sample ID <b>MB-32967</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>32967</b>		RunNo: <b>44476</b>							
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>		SeqNo: <b>1406632</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	66.6	132			

Sample ID <b>LCS-32967</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>32967</b>		RunNo: <b>44476</b>							
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>		SeqNo: <b>1406633</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.5	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	66.6	132			

Sample ID <b>1707B82-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Reid B 2 E N&amp;W Wa</b>	Batch ID: <b>32967</b>		RunNo: <b>44476</b>							
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>		SeqNo: <b>1406635</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.023	0.9346	0	96.7	80.9	132			
Toluene	0.92	0.047	0.9346	0.01082	97.7	79.8	136			
Ethylbenzene	0.94	0.047	0.9346	0.009772	99.6	79.4	140			
Xylenes, Total	2.9	0.093	2.804	0.03046	101	78.5	142			
Surr: 4-Bromofluorobenzene	0.96		0.9346		103	66.6	132			

Sample ID <b>1707B82-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>Reid B 2 E N&amp;W Wa</b>	Batch ID: <b>32967</b>		RunNo: <b>44476</b>							
Prep Date: <b>7/24/2017</b>	Analysis Date: <b>7/25/2017</b>		SeqNo: <b>1406636</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9950	0	96.5	80.9	132	6.05	20	
Toluene	0.99	0.050	0.9950	0.01082	98.6	79.8	136	7.06	20	
Ethylbenzene	1.0	0.050	0.9950	0.009772	101	79.4	140	7.12	20	
Xylenes, Total	3.1	0.10	2.985	0.03046	103	78.5	142	7.72	20	
Surr: 4-Bromofluorobenzene	1.0		0.9950		105	66.6	132	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
- PQL Practical Quantitative Limit
- 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 FOUR CORN

Work Order Number: 1707B82

RcptNo: 1

Received By: Andy Freeman 7/22/2017 11:10:00 AM

Completed By: Ashley Gallegos 7/23/2017 1:29:32 PM

Reviewed By: ENM 7/24/17

### 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° C to 6.0°C Yes  No  NA
6. Sample(s) in proper container(s)? Yes  No
7. Sufficient sample volume for indicated test(s)? Yes  No
8. Are samples (except VOA and ONG) properly preserved? Yes  No
9. Was preservative added to bottles? Yes  No  NA
10. VOA vials have zero headspace? Yes  No  No VOA Vials
11. Were any sample containers received broken? Yes  No
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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.7	Good	Yes			

# Chain-of-Custody Record

Client: WFS

Mailing Address: 188 CR 4900  
Bloom Field NM 87413

Phone #: 505

email or Fax#: Kijun Hong @willigas.com

QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation  
 NELAP  Other \_\_\_\_\_

EDD (Type) \_\_\_\_\_

Turn-Around Time:  
 Standard  Rush

Project Name:  
Reid B-2E

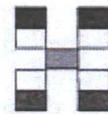
Project #:

Project Manager:  
Kijun Hong

Sampler: Morgan Killion

On Ice:  Yes  No

Sample Temperature: 4.7°C



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX + MTBE + FMB's (8021)	BTEX + MTBE + TPH (Gas only)	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 <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	Air Bubbles (Y or N)
X	X	X									X	
X	X	X									X	
X	X	X									X	

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
7/21/17	10:00	soil	Reid B2E NEW walls	1-402	Cool	1707B82-001
7/21/17	10:10	soil	Reid B2E S&E walls	1-402	↓	1707B82-002
7/21/17	10:20	soil	Reid B2E Bottom	1-402	↓	1707B82-003

Date: 7/21/17	Time: 11:20	Relinquished by: <u>Morgan Killion</u>	Received by: <u>Christy Wael</u>	Date: 7/21/17	Time: 11:20
Date: 7/21/17	Time: 17:50	Relinquished by: <u>Christy Wael</u>	Received by: <u>[Signature]</u>	Date: 7/22/17	Time: 11:10

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.

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 1755 Arroyo Drive	Telephone No. 505-632-4708
Facility Name Newsom B-4 Gathering Pipeline	Facility Type Pipeline

Surface Owner State of New Mexico	Mineral Owner	API No.
-----------------------------------	---------------	---------

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	26N	8W					San Juan

Latitude 36.48300° N Longitude -107.68320° W

#### NATURE OF RELEASE

Type of Release Produced Water/Natural Gas	Volume of Release 40 cubic yards of soil removed/ 19.2 MCF	Volume Recovered 40 cubic yards of soil removed from the site/ 0 MCF
Source of Release Leak in pipeline	Date and Hour of Occurrence 9/7/2017, 12:30 PM MST	Date and Hour of Discovery 9/7/2017, 12:30 PM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Not Applicable	
By Whom? Not Applicable	Date and Hour Not Applicable	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not Applicable	

**OIL CONS. DIV DIST. 3**

**SEP 27 2017**

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

Describe Cause of Problem and Remedial Action Taken.\*  
A pipeline leak was discovered during routine leak monitoring on the Newsom B-4 Pipeline. The initial lost gas volume was not a reportable quantity, but 40 cubic yards of impacted soil were taken to an approved NMOCD land farm as a result of the pipeline repair and cleanup.

Describe Area Affected and Cleanup Action Taken.\*  
A repair and cleanup crew was mobilized to the site. Please see the confirmation soil sample results attached to this report.

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.

Mitch Morris Signature: 	<b>OIL CONSERVATION DIVISION</b>	
	Approved by Environmental Specialist: 	
Printed Name: Mitch Morris	Approval Date: <u>10/3/2017</u>	Expiration Date:
Title: Environmental Specialist	Conditions of Approval:	
E-mail Address: Mitch.Morris@williams.com	Attached <input type="checkbox"/>	
Date: 9/20/2017      Phone: 505-632-4708		

\* Attach Additional Sheets If Necessary

NF1727640072

## Remediation Excavation and Sampling Form

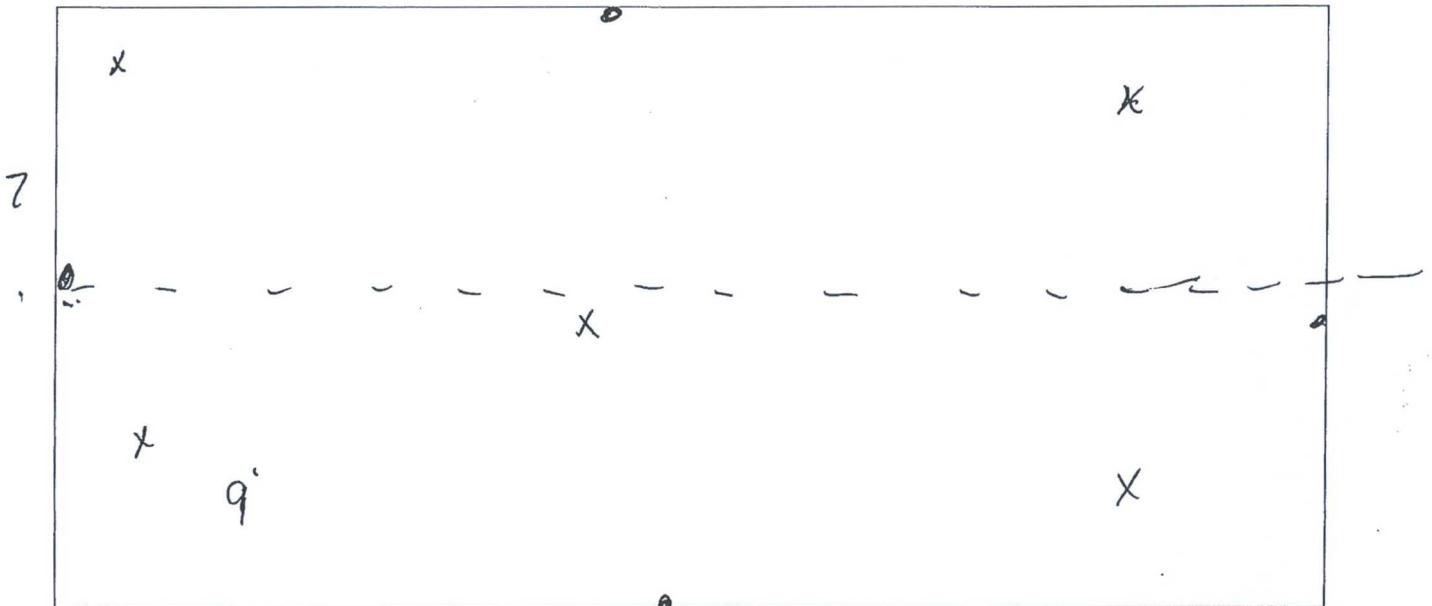
Site Name Newsome B-4

**Excavation Dimensions (feet)**

12 Length 7' Width 9' Depth

**Excavation Diagram and Sample Locations**

(Depict notable site features, excavation extents, visual observations, sample locations, north arrow, etc.)



12

X Floor samples  
● Walls

**Sample Information**

OCD Witness Sampling  Yes or No

Agency(s) Representative(s) Vanessa Field NMOC

Sample ID	Sample Date	Type (Composite, Grab)	Location (Floor, Sidewall)	Comments
Newsome#B-4	9-6-17	Composite	side walls	7.95 PPM
Newsome#B-4	9-6-17	Composite	Floor	108 PPM



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)

September 11, 2017

Mitch Morris  
Williams Field Services  
188 Co. Rd 4900  
Bloomfield, NM 87413  
TEL:  
FAX

RE: Newsome B-4

OrderNo.: 1709292

Dear Mitch Morris:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/7/2017 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".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1709292

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Sidewalls

Project: Newsome B-4

Collection Date: 9/6/2017 10:10:00 AM

Lab ID: 1709292-001

Matrix: SOIL

Received Date: 9/7/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	9/7/2017 10:46:06 AM	33743
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	9/7/2017 12:25:07 PM	33725
Surr: BFB	89.0	70-130		%Rec	1	9/7/2017 12:25:07 PM	33725
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/7/2017 10:59:57 AM	33742
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/7/2017 10:59:57 AM	33742
Surr: DNOP	103	70-130		%Rec	1	9/7/2017 10:59:57 AM	33742
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.016		mg/Kg	1	9/7/2017 12:25:07 PM	33725
Toluene	ND	0.033		mg/Kg	1	9/7/2017 12:25:07 PM	33725
Ethylbenzene	ND	0.033		mg/Kg	1	9/7/2017 12:25:07 PM	33725
Xylenes, Total	ND	0.065		mg/Kg	1	9/7/2017 12:25:07 PM	33725
Surr: 1,2-Dichloroethane-d4	127	70-130		%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: Dibromofluoromethane	119	70-130		%Rec	1	9/7/2017 12:25:07 PM	33725
Surr: Toluene-d8	97.1	70-130		%Rec	1	9/7/2017 12:25:07 PM	33725

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
	PQL Practical Quantitative Limit	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 1709292

Date Reported: 9/11/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services

Client Sample ID: Bottom

Project: Newsome B-4

Collection Date: 9/6/2017 10:20:00 AM

Lab ID: 1709292-002

Matrix: SOIL

Received Date: 9/7/2017 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	9/7/2017 10:58:30 AM	33743
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	3.4		mg/Kg	1	9/7/2017 12:54:06 PM	33725
Surr: BFB	105	70-130		%Rec	1	9/7/2017 12:54:06 PM	33725
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	310	9.3		mg/Kg	1	9/7/2017 11:22:08 AM	33742
Motor Oil Range Organics (MRO)	170	47		mg/Kg	1	9/7/2017 11:22:08 AM	33742
Surr: DNOP	108	70-130		%Rec	1	9/7/2017 11:22:08 AM	33742
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.017		mg/Kg	1	9/7/2017 12:54:06 PM	33725
Toluene	ND	0.034		mg/Kg	1	9/7/2017 12:54:06 PM	33725
Ethylbenzene	ND	0.034		mg/Kg	1	9/7/2017 12:54:06 PM	33725
Xylenes, Total	ND	0.069		mg/Kg	1	9/7/2017 12:54:06 PM	33725
Surr: 1,2-Dichloroethane-d4	124	70-130		%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: Dibromofluoromethane	121	70-130		%Rec	1	9/7/2017 12:54:06 PM	33725
Surr: Toluene-d8	94.0	70-130		%Rec	1	9/7/2017 12:54:06 PM	33725

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
	PQL Practical Quantitative Limit	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#: 1709292  
11-Sep-17

**Client:** Williams Field Services

**Project:** Newsome B-4

Sample ID <b>MB-33743</b>	SampType: <b>mbk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>33743</b>	RunNo: <b>45475</b>								
Prep Date: <b>9/7/2017</b>	Analysis Date: <b>9/7/2017</b>	SeqNo: <b>1442603</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-33743</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>33743</b>	RunNo: <b>45475</b>								
Prep Date: <b>9/7/2017</b>	Analysis Date: <b>9/7/2017</b>	SeqNo: <b>1442604</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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
- PQL Practical Quantitative Limit
- 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#: 1709292

11-Sep-17

**Client:** Williams Field Services

**Project:** Newsome B-4

Sample ID <b>LCS-33742</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>33742</b>		RunNo: <b>45468</b>							
Prep Date: <b>9/7/2017</b>	Analysis Date: <b>9/7/2017</b>		SeqNo: <b>1440759</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.6	73.2	114			
Surr: DNOP	4.8		5.000		96.2	70	130			

Sample ID <b>MB-33742</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>33742</b>		RunNo: <b>45468</b>							
Prep Date: <b>9/7/2017</b>	Analysis Date: <b>9/7/2017</b>		SeqNo: <b>1440760</b>		Units: <b>mg/Kg</b>					
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	11		10.00		106	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                                    |
| PQL Practical Quantitative Limit                        | 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#: 1709292

11-Sep-17

**Client:** Williams Field Services

**Project:** Newsome B-4

Sample ID	<b>mb-33725</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>33725</b>	RunNo:	<b>45482</b>					
Prep Date:	<b>9/6/2017</b>	Analysis Date:	<b>9/7/2017</b>	SeqNo:	<b>1442102</b>	Units:	<b>mg/Kg</b>			
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: 1,2-Dichloroethane-d4	0.61		0.5000		122	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.6	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		119	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Sample ID	<b>lcs-33725</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>33725</b>	RunNo:	<b>45482</b>					
Prep Date:	<b>9/6/2017</b>	Analysis Date:	<b>9/7/2017</b>	SeqNo:	<b>1442103</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	121	70	130			
Toluene	0.93	0.050	1.000	0	93.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.61		0.5000		123	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.2	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.50		0.5000		100	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
- PQL Practical Quantitative Limit
- 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#: 1709292

11-Sep-17

Client: Williams Field Services

Project: Newsome B-4

Sample ID <b>mb-33725</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>33725</b>	RunNo: <b>45482</b>								
Prep Date: <b>9/6/2017</b>	Analysis Date: <b>9/7/2017</b>	SeqNo: <b>1441971</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	440		500.0		89.0	70	130			

Sample ID <b>Ics-33725</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>33725</b>	RunNo: <b>45482</b>								
Prep Date: <b>9/6/2017</b>	Analysis Date: <b>9/7/2017</b>	SeqNo: <b>1441977</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB	470		500.0		93.9	70	130			

## Qualifiers:

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