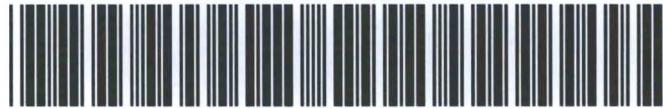




# AE Order Number Banner

## Report Description

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



**App Number: pCS1430838889**

**3RP - 1019**

**WILLIAMS FOUR CORNERS**

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 <b>Williams Four Corners LLC</b>	Contact <b>Kijun Hong</b>
Address <b>1755 Arroyo Drive, Bloomfield, NM 87413</b>	Telephone No. <b>505-632-4475</b>
Facility Name <b>Kutz Canyon Gas Plant</b>	Facility Type <b>Natural Gas Processing Plant</b>

Surface Owner <b>BLM</b>	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
<b>D</b>	<b>13</b>	<b>28N</b>	<b>11W</b>					<b>San Juan</b>

Latitude **36.666589** Longitude **-107.962877** NAD83

#### NATURE OF RELEASE

Type of Release <b>Unknown</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>Unknown (historical release)</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>10/5/2017 12:00 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 (OCD) and Whitney Thomas (BLM)</b>	
By Whom? <b>Matt Webre</b>	Date and Hour <b>OCD 10/5/2017 @ 2:45 PM; BLM 10/5/2017 @ 3:20 PM</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.\*

Gas Company of New Mexico (GCNM) encountered what appears to be hydrocarbon impacted soils while performing excavation activities along their new pipeline ROW. The ROW excavation is located on the western portion of the Kutz Canyon Gas Plant between the condensate tank and the west plant fence line.

12/5/2017 - This is a subsequent report, please see work plan attached.  
1/24/2018 - This is a subsequent report, please see Sampling Summary attached.  
4/16/2018 - This is a subsequent report, please see work plan attached.

**NMOCD**

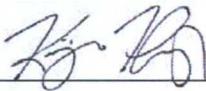
**APR 18 2018**

**DISTRICT III**

Describe Area Affected and Cleanup Action Taken.\*

12/5/2017 - This is a subsequent report, please see work plan attached.  
1/24/2018 - This is a subsequent report, please see Sampling Summary attached.  
4/16/2018 - This is a subsequent report, please see work plan attached.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Kijun Hong</b>	Approved by Environmental Specialist: 	
Title: <b>Environmental Specialist</b>	Approval Date: <b>5/3/18</b>	Expiration Date:
E-mail Address: <b>kijun.hong@williams.com</b>	Conditions of Approval: 	Attached <input checked="" type="checkbox"/>
Date: <b>4/16/2018</b> Phone: <b>(505) 436-8457</b>		

\* Attach Additional Sheets If Necessary #NES1729626631

3RP-1019

21

## Smith, Cory, EMNRD

---

**From:** Smith, Cory, EMNRD  
**Sent:** Thursday, May 3, 2018 3:09 PM  
**To:** 'Galer, Aaron'  
**Cc:** Fields, Vanessa, EMNRD; Powell, Brandon, EMNRD; Webre, Matt; Hong, Kijun; l1thomas@blm.gov  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

OCD has reviewed Williams work plan received on April 18, 2018 and additional comments via email on April 24, 2018. In the "Excavation, Delineation, and Stockpile Sampling Summary Report" submitted on January 26, 2018 Williams indicated on page 5 " *Williams believes the source is a waterline in the Kutz Canyon Gas Plant and is conducting an engineering analysis to evaluate potential leaks.*" In both reports Williams claims that there is no ground water in the area. However just to the North West of the excavation area Williams discovered a seep (51 ug/kg Benzene) which indicate that Williams is discharging contaminates to the soils. Williams has failed to identify or take any action and has knowingly continued to discharge to the subsurface.

OCD is approving Williams April 18, 2018 work plan with the following conditions of approval

- Williams will submit to the OCD Via email copies of all the haul tickets for SP2 and SP3 no later than May 14, 2018.
- Williams will complete Leak testing no later than May 31, 2018.
- Williams will commence soil and ground water delineation no later than June 8, 2018.
- Williams will commence soil remediation in the vicinity of samples "EX-South @ 10' and TR01 @ 8" no later than June 14, 2018.
- Williams will dispose of any fluids encountered as a released liquid to prevent any further soil contamination and the closure standards will be set at 100 mg/kg TPH, 50 mg/kg BTEX and 10 mg/kg Benzene until Williams can determine the source of the water.
- Williams will schedule with OCD District III for all closure confirmation sampling.
- Williams will notify OCD at least 72 hours but no more than a week prior to the start of delineation activities.

If you have any additional questions contact me as soon as possible.

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 <Aaron.Galer@Williams.com>

**Sent:** Tuesday, April 24, 2018 11:38 AM

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

**Cc:** Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Webre, Matt <Matt.Webre@Williams.com>; Hong, Kijun <Kijun.Hong@williams.com>; l1thomas@blm.gov

**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

No engineering analysis has been completed. No leaking process equipment is known or suspected. Since the water observed in the pipeline trench was clean, Williams suspects there is a potable water line leak in the upgradient area. As indicated in the work plan, Williams is planning to complete leak tests on the potable water lines at the facility. This will be completed over the next 4 to 5 weeks. Once the leak testing is complete, Williams will repair any identified leaks within 2 to 3 weeks and then schedule the soil and groundwater investigation outlined in the work plan.

The extent of soil remediation that will be required within the pipeline right-of-way depends on the results of the groundwater investigation. Williams will schedule the soil remediation within 2 weeks of receiving OCD conditions of approval on the groundwater investigation findings and site ranking that determines the applicable cleanup levels.

The surface staining west of the seep was observed in March while performing a site walk as part of work planning.

The tentative schedule to complete this work is as follows:

- 1) Leak Testing: Complete by May 31<sup>st</sup>
- 2) Leak Repair (if necessary): Complete by June 15<sup>th</sup>
- 3) Soil and groundwater Investigation: Complete by June 29<sup>th</sup>
- 4) Submit report presenting results and proposed corrective actions: Complete by July 27<sup>th</sup>
- 5) Soil remediation: Start within 2 weeks of receiving OCD conditions of approval



**Aaron Galer** | Williams | Environmental Specialist IV | Environmental Programs  
Office: 801-584-6746 | Cell: 801-244-1219 | 295 Chipeta Way, SLC, UT 84108

---

**From:** Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]

**Sent:** Monday, April 23, 2018 2:27 PM

**To:** Galer, Aaron <Aaron.Galer@Williams.com>

**Cc:** Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; Webre, Matt <Matt.Webre@Williams.com>; Hong, Kijun <Kijun.Hong@williams.com>; l1thomas@blm.gov; Ruybalid, Tristen <Tristen.Ruybalid@Williams.com>

**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

Just reviewing the delineation work plan I have read over it but, perhaps I am missing it but I cannot find the results of Williams Engineering Analysis for leaking process equipment nor the remediation plan for contaminated soils nor any timelines for implementation of any plans?

Please see the below conditions of approval from 3/6/18

- Williams will provide the OCD with a work plan by April 16,2018 that includes the results of the "Engineering analysis of potential leaking process equipment" a remediation plan for contaminated

soils, and a delineation plan for additional groundwater investigation. Please include time limes for implementation of all plans.

Also when was additional stained soils found west of the Seep as there was no mention of it in Williams previous report?

Thanks,

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 <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Sent:** Monday, April 16, 2018 3:40 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; [l1thomas@blm.gov](mailto:l1thomas@blm.gov); Ruybalid, Tristen <[Tristen.Ruybalid@Williams.com](mailto:Tristen.Ruybalid@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

Attached for your review and approval is an electronic copy of our work plan for additional soil and groundwater assessment at our Kutz Canyon Gas Plant. A hard copy and subsequent C-141 will be delivered to your office this week.



**Aaron Galer** | Williams | Environmental Specialist IV | Environmental Programs  
Office: 801-584-6746 | Cell: 801-244-1219 | 295 Chipeta Way, SLC, UT 84108

---

**From:** Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]  
**Sent:** Tuesday, March 06, 2018 9:08 AM  
**To:** Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>; [l1thomas@blm.gov](mailto:l1thomas@blm.gov)  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Ruybalid, Tristen <[Tristen.Ruybalid@Williams.com](mailto:Tristen.Ruybalid@Williams.com)>  
**Subject:** [EXTERNAL] RE: Kutz Canyon GP Soil Delineation Work Plan

Dear Mr. Hong,

The New Mexico Oil Conservation Division (OCD) received an initial C-141 from Williams Four Corners LLC (Williams) for the delineation at the Kutz Canyon Gas Plant dated January 26, 2018. After review the OCD has approved the delineation report with the following conditions of approval:

- OCD denies Williams request to leave contaminated soils with elevated TPH, and BTEX levels in place. Additional ex-situ and/or in-situ remediation is required.
- OCD denies Williams request to use SP2 and SP3 as backfill material.

- As mentioned in the report Williams believes the source of the water is an underground leak from process equipment. Williams will dispose of any fluids encountered as a released liquid to prevent any further soil contamination and the closure standards will be set at 100 mg/kg TPH, 50 mg/kg BTEX and 10 mg/kg Benzene until Williams can determine the source of the water.
- Williams will provide the OCD with a work plan by April 16, 2018 that includes the results of the "Engineering analysis of potential leaking process equipment" a remediation plan for contaminated soils, and a delineation plan for additional groundwater investigation. Please include time limes for implementation of all plans.
- Williams will schedule with the OCD District III Environmental staff at least 24 hours prior to the collection of any confirmation sample.

If you have any questions please feel free to contact me at your leisure.

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:** Hong, Kijun [<mailto:Kijun.Hong@williams.com>]  
**Sent:** Wednesday, January 24, 2018 9:45 AM  
**To:** Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>; Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; [l1thomas@blm.gov](mailto:l1thomas@blm.gov)  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Ruybalid, Tristen <[Tristen.Ruybalid@Williams.com](mailto:Tristen.Ruybalid@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Including Whitney.

Hard copies will be mailed to your respective offices shortly.

Thanks!  
 Kijun

---

**From:** Galer, Aaron  
**Sent:** Monday, January 22, 2018 2:28 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

Attached is an electronic copy of the report. A hard copy will be delivered this week with a subsequent C-141. Let me know if you have any questions.



---

**From:** Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]  
**Sent:** Monday, January 22, 2018 2:17 PM  
**To:** Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Webre, Matt <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

I haven't received anything Hard Copy on this release. Can I get a Status update?

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:** Monday, December 18, 2017 10:33 AM  
**To:** 'Galer, Aaron' <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; 'Hong, Kijun' <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Webre, Matt ([Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)) <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

OCD has received Williams Kutz Canyon Gas Plant Delineation work plan on 12/7/2017 and has approved the work plan with the attached and below conditions of approval.

- Water was observed within the excavation and showed signs of significant quantities. There is a possibility that a perched aquifer exists. OCD considers this protectable ground water unless Williams can provide additional site specific ground water information. Therefore the site close standards would be 100 mg/kg Total Petroleum Hydrocarbons, 50 mg/kg Total BTEX and 10 mg/kg Benzene.
- 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.
- Williams will submit to the OCD a delineation report and proposed remediation plan no later than January 9, 2018, with expected remediation to commence no later than January 22, 2018
- Since the release potentially impacted groundwater, a water sample will be required sampling for BTEX using method EPA Method 8260.
- Williams will schedule with the OCD District III Environmental staff at least 24 hours prior to the collection of any confirmation sample.

If you have any questions please give me a call

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:** Friday, December 1, 2017 1:30 PM  
**To:** 'Webre, Matt' <[Matt.Webre@Williams.com](mailto:Matt.Webre@Williams.com)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Matt,

You are correct on the dates. OCD communicated with Kijun via telephone discussing additional sampling which occurred later that month. I expressed that we could wait for those samples as all of us had conflicting information prior to any plan being submitted.

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:** Webre, Matt [<mailto:Matt.Webre@Williams.com>]  
**Sent:** Friday, December 1, 2017 12:44 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

I would like to provide a correction to your email below to make sure the record is correct as documented in the attached emails. Kijun requested an extension on Friday, November 3, 2017 (2 days before the work plan due date which was on Sunday, November 7, 2017). Following our request, we did not receive a response from OCD and meet the requested timeline to provide the work plan by November 17, 2017.

Meeting our regulatory obligations is extremely important to our team. Perception is also highly important to us. The purpose of this email is to ensure that the OCD's understands that Williams was and did continue to move forward on this project and required additional time due to the complexity of the ongoing work on our site by a third party. The location of the impacts were found in the immediate vicinity a significant pipeline corridor with multiple operators which happens run through our plant operations area.



Matt Webre, PG | Williams | Supervisor EH&S | West Safety and Environmental  
Office: 505-632-4442 | Cell: 505-215-8059 | 1755 Arroyo Drive, Bloomfield, NM 87413

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

---

**From:** Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]  
**Sent:** Friday, December 01, 2017 12:06 PM  
**To:** Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>  
**Subject:** [EXTERNAL] RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

A C-141 and a work plan is required when submitting initial plans. For example the initial C-141 for this site did not clarify Williams intent. As per the Email I sent to Matt Weber on October 29, 2017 approving the initial C-141 one of the conditions of approval was "Williams did not clarify there remediation plan, IF Dig and Haul is the used remediation Williams must start no later than December 5, 2017 if any other type of remediation or delineation is proposed Williams must submit a work plan by November 5, 2017 for approval." On November 7, 2017 Kijun Hung requested via email an extension to November 17, 2017.

Please submit the work plan attached to an initial/subsequent C-141 for approval. Reviewing the digital plan I don't see any issues with the proposed delineation or method. Williams should expect to receive the typical conditions of approval for full delineation, a starting date (If one is not provided), notification requirements, and possibility determinations on the "ground water".

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, November 28, 2017 10:02 AM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>  
**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

No hard copy of the delineation plan was submitted with an attached C-141. That hasn't been required consistently for all of our sites. Please let me know if that will be required for all work plans and reports at all sites.

The water observed in the open trench is not groundwater, but believed to be from a potential waterline leak in the area. Groundwater is estimated to be greater than 100 feet deep based on the following:

- No water wells exist within a 1-mile radius of the site
- Closest water wells are greater than 250 feet lower in elevation and tap shallow aquifers associated with the San Juan River
- The elevation difference between Kutz Wash, where the nearest shallow groundwater is expected, and the Gas Plant is 285 feet
- The nearest watercourse is a 3<sup>rd</sup>-order tributary of Kutz Canyon located greater than 1,000 feet southwest of the facility
- All previous discharge permits and remediation reports/C-141s approved by NMOCD have stated groundwater is greater than 100' bgs



**Aaron Galer | Williams | Environmental Specialist IV | Environmental Programs**  
Office: 801-584-6746 | Cell: 801-244-1219 | 295 Chipeta Way, SLC, UT 84108

---

**From:** Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]

**Sent:** Monday, November 27, 2017 3:42 PM

**To:** Galer, Aaron <[Aaron.Galer@Williams.com](mailto:Aaron.Galer@Williams.com)>

**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>

**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Aaron,

I will be out of the office on Wednesday Vanessa will be onsite.

Also did you send the delineation plan hard copy with an attached C-141 for approval? Reading over the digital copy I am concerned with Williams site ranking and classification of the ground water in the excavation.

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:** Monday, November 27, 2017 10:23 AM

**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>

**Cc:** Fields, Vanessa, EMNRD <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Hong, Kijun <[Kijun.Hong@williams.com](mailto:Kijun.Hong@williams.com)>; Lucero, Christopher <[Christopher.Lucero@Williams.com](mailto:Christopher.Lucero@Williams.com)>

**Subject:** RE: Kutz Canyon GP Soil Delineation Work Plan

Cory,

We would like to schedule the sampling of the stockpiled soil at Kutz Canyon on Wednesday at 1PM. Our sampling plan is outlined below:

- Divide the soil piles into approximately 100 CY sections by estimating volume from visual observation. Mark those subdivisions with tape, stakes, or spray paint.
- Collect 5-point composite samples of each using a hand auger to get samples from inside the piles.
- Submit samples to the lab for analysis of BTEX and TPH.
- Tabulate results and determine whether disposal is required or we may use as backfill.
- Submit results to the NMOCD for approval.
- Include results in closure documentation.

In addition, we intend to begin soil delineation at the site Wednesday as outlined in the work plan submitted to the NMOCD on 11/17/17. We plan to hand auger and hydrovac the proposed borings Wednesday/Thursday and drill Thursday/Friday.



**Aaron Galer | Williams | Environmental Specialist IV | Environmental Programs**  
Office: 801-584-6746 | Cell: 801-244-1219 | 295 Chipeta Way, SLC, UT 84108

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**From:** Galer, Aaron  
**Sent:** Friday, November 17, 2017 3:17 PM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Cc:** 'Fields, Vanessa, EMNRD' <[Vanessa.Fields@state.nm.us](mailto:Vanessa.Fields@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)>; Kijun Hong ([kijun.hong@williams.com](mailto:kijun.hong@williams.com)) <[kijun.hong@williams.com](mailto:kijun.hong@williams.com)>  
**Subject:** Kutz Canyon GP Soil Delineation Work Plan

Cory,

Please find attached our proposed soil delineation work plan for the Kutz Canyon GP including the sample results from last week. Let me know if you have any questions.



**Aaron Galer | Williams | Environmental Specialist IV | Environmental Programs**  
Office: 801-584-6746 | Cell: 801-244-1219 | 295 Chipeta Way, SLC, UT 84108

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# Limited Soil and Groundwater Assessment Work Plan

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*Kutz Canyon Gas Plant  
San Juan County, New Mexico*

*April 16, 2018*

NMOC  
APR 18 2018  
DISTRICT III

Prepared for:



Williams Four Corners LLC

Prepared by:

**APTIM Environmental & Infrastructure, Inc.**

6380 South Fiddlers Green, Suite 310  
Greenwood Village, CO 80111  
United States  
[www.APTIM.com](http://www.APTIM.com)



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## 1.0 INTRODUCTION

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### 1.1 BACKGROUND

Petroleum hydrocarbon impacted soils were encountered during excavation activities to install a natural gas gathering pipeline owned and operated by Gas Company of New Mexico (GCNM). The excavation was located within the GCNM pipeline Right of way (ROW) outside of the fenced facility at the Kutz Canyon Gas Plant (Site) operated by Williams Four Corners, LLC (Williams). GCNM notified Williams's personnel, who then reported the release to the New Mexico Oil Conservation Division (NMOCD) on October 5, 2017. The excavated area was located at a latitude 36.66652778 degrees and a longitude of -107.96277778 degrees in the SW/NW/NW quarter, of Section 13, Township 28 North, and Range 11 West (see **Figure 1**).

The initial testing of the soil in the trench was completed by LT Environmental, Inc. (LTE) on behalf of Williams, on November 9, 2017. Two composite soil samples collected from the bottom of the trench contained benzene, toluene, ethylbenzene, and total xylenes (total BTEX) at 156.2 milligrams per kilogram (mg/kg) and 93.7 mg/kg, both above the NMOCD closure criteria of 50 mg/kg. No detectable concentrations of BTEX were noted in the water samples collected from the bottom of the excavation.

During pipeline trenching activities, the petroleum hydrocarbon impacted soil identified within the pipeline trench was excavated to the extent possible. Utilities within the highly congested pipeline corridor prevented the excavation of all petroleum hydrocarbon impacted soil within the central portion of the pipeline trench northeast of the above ground storage tanks (see **Figure 2**). The extent of the soil impact has been defined laterally around the pipeline trench in this area.

The NMOCD recommended remediation action levels for soils contaminated by petroleum hydrocarbons are based on the total ranking score for a site based on the relative threat to public health, fresh waters and the environment (NMOCD, 1993). For sites with a depth to groundwater greater than 100 feet below ground surface (bgs); no water source or private domestic water source within 1,000 feet; and distance to the nearest surface water body greater than 1,000 feet, the total ranking score for a site is zero. NMOCD has indicated that due to shallow groundwater observations during the GCNM excavation and soil boring assessment work, groundwater is considered to be at depths less than 100 feet.

Groundwater at the Site has historically been estimated to be greater than 100 feet and all other criteria are met to give the Site a ranking score of zero. For sites with a total ranking score of zero to nine, the recommended remediation action level for benzene is 10 mg/kg, for total BTEX is 50 mg/kg, and for total petroleum hydrocarbons (TPH) is 5,000 mg/kg.

A work plan was developed by LTE and approved by NMOCD to define the extent of impact in the subsurface. The subsurface investigation was completed from November 29 through December 1, 2017. The investigation consisted of the installation of nine borings on either side of the trench at depths ranging from 20 to 25 feet bgs. No petroleum hydrocarbon impacts were observed in any of the soil borings and only trace amounts of total BTEX and TPH were reported in three of the soil samples

collected. All results were within NMOCD recommended remediation standards for benzene, total BTEX, and TPH in soil.

The only water encountered in the nine soil borings was in BH-3. A water sample was collected from the open borehole using a peristaltic pump and submitted to the laboratory for analysis of BTEX and TPH. Trace amounts of benzene (1.2 micrograms per liter ( $\mu\text{g/l}$ )), toluene (1.9  $\mu\text{g/l}$ ), xylenes (6.5  $\mu\text{g/l}$ ), and TPH diesel range organics (31 milligrams per liter ( $\text{mg/l}$ )) were detected in the water sample collected from the open borehole. A water sample was also collected from a surface seep located north of the flare and west of the excavation. Benzene was reported at 51  $\mu\text{g/l}$  and TPH as gasoline range organics at 5.2  $\text{mg/l}$ .

The conclusion of the subsurface investigation are:

- The lateral extent of petroleum hydrocarbon impacted soil in the vicinity of the GCNM pipeline corridor has been defined;
- There remains a limited subsurface area of petroleum hydrocarbon impacted soil beneath the highly congested pipeline corridor; and,
- The water observed in the open trench and the one boring did not appear to be groundwater and is potentially perched water from a potable water line leak at the Williams facility.

## 1.2 WORK PLAN OBJECTIVES

This work plan was prepared with the following objectives:

- To identify the potential occurrence of shallow perched groundwater beneath the site;
- Evaluate soils in the area of noted surface staining; and,
- Evaluate surface seep located north of the flare for perched water and potential petroleum hydrocarbon sources.

Williams will complete tracer gas test in its potable water lines to determine if a water leak exists and is the source of the water that was observed in the trench and BH-3. Once testing is complete and has either confirmed that no leaks exist or any leaks that have been identified are fixed, additional activities will be completed to evaluate the potential occurrence of groundwater beneath the site.

Remediation of the petroleum hydrocarbon impacted soils within the trench area will be determined after completion and evaluation of these field activities.

## 2.0 GENERAL SCOPE OF WORK AND METHODOLOGY

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New Mexico one-call (NM811) will be contacted prior to the initiation of field activities to have public utilities identified. A review of possible utility companies not listed with the NM811 system and an attempt to locate private lines will be conducted prior to drilling. Actions will be taken at each soil boring location to ensure that locations are cleared of subsurface utilities.

A qualified geologist will supervise the drilling activities. The geologist will be present to conduct air monitoring, record lithologic descriptions, and collect samples for field screening and analytical testing. The drilling contractor will be a licensed well driller in the state of New Mexico. All personnel will comply with the Site Specific Health and Safety Plan.

Field work will include the evaluation of soils in the area of the noted staining (soil borings SB-10 through SB-13) and the surface seep location north of the flare (soil borings SB-14 through SB-17) using a Geoprobe® direct push unit for soil sampling. The locations of the proposed borings are presented on **Figure 2**.

If water is encountered during soil characterization and sampling, a water sample will be obtained to assess the potential impact on groundwater quality. If perched groundwater is encountered on top of or above the aquitard, a monitoring well may be installed as deemed necessary to evaluate the perched shallow groundwater quality. The estimated depth to the aquitard is 25 to 35 feet bgs.

### 2.1 SOIL BORING SAMPLING

Photographs and a field description will be provided for each sample location. Actual sampling locations may be shifted based on the location of utilities or other physical barriers that prevent installation of the boring. Global Positioning System (GPS) coordinates will be collected for each soil boring location.

A Geoprobe® equipped with a 5-foot long dual tube soil sampling system will be used. A new disposable clear polyvinyl chloride (PVC) liner will be used for the collection of each 5-foot sample interval from surface to total depth of the soil boring. The total depth of proposed soil borings SB-1 through SB-4 will be to the top of the consolidate layer estimated at 25 to 30 feet bgs. Soil samples will be collected in a minimum of 5-foot intervals and field screened for VOCs using a photoionization detector (PID).

The remaining soil borings installed in the noted area of surface staining will be installed to a minimum depth of 5 feet bgs. The boring will be stopped if the field screening PID results are less than 50 ppm by volume (ppmv) and no field impacts are observed. Additional soil borings will be installed if needed to define the lateral extent of impacted soil.

Field screening of soil samples will be completed in a one-quart zip-lock bag half full of the soil. The sample will be kept at between 60 to 75 degrees Fahrenheit and set for 5 to 10 minutes before screening. The sample will be gently broken up within the sealed zip-lock bag before taking the reading.

A minimum of one unsaturated soil sample will be collected from each soil boring for laboratory analytical analysis. The field geologist will base the collection interval for the soil sample for laboratory analysis on the PID field screening results and visual inspection. The soil samples will be containerized, preserved, and submitted to the laboratory for analysis of BTEX using method 8260B and TPH-GRO (gasoline range organics C6-C10), TPH-DRO (diesel range organics C10-C20), and TPH –MRO (motor oil range organics C28 – C40) using method 8015.

If water is encountered within the soil boring during characterization, a water sample will be obtained through sampling assembly. If needed, temporary 1-inch diameter screen and riser will be set to allow water to enter the boring prior to sampling. Groundwater samples will be obtained using new high-density polyethylene (HDPE) tubing and a check valve assembly or if shallow enough, new HDPE tubing and a peristaltic pump. The water samples will be containerized, preserved, and submitted to the laboratory for analysis of BTEX using method 8260B and TPH-GRO, TPH-DRO, and TPH –MRO using method 8015.

If water is encountered, the depth to the top of water from ground level will be recorded after all sample collection has been completed and prior to abandonment. Upon completion, each boring will be plugged with bentonite.

## 2.2 GROUNDWATER SAMPLING

If temporary monitoring points are installed and if there is available water to be sampled, groundwater sampling activities will be performed.

Specifically, the scope of work includes:

- Recording the depth to groundwater (and light non-aqueous phase liquid (LNAPL) if present) using an interface probe capable of measuring to 0.01 feet;
- Purging the temporary monitoring point of three well volumes;
- Collecting groundwater samples and analyzing the samples for BTEX using method 8260B and TPH-GRO, TPH-DRO, and TPH-MRO using method 8015M.

## 2.3 SURVEY

The soil boring locations will be marked and the locations surveyed by a New Mexico licensed surveyor to establish locations, ground surface elevation, and top of casing elevation for the monitoring wells, if needed.

### 3.0 REPORTING

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A letter report will be submitted within 30-days of the completion of field sampling activities and receipt of analytical laboratory reports. The report will include the following:

- Description of sampling activities,
- Soil boring logs with lithologic descriptions and field screening results,
- Monitoring well completion logs,
- Comprehensive fluid levels table,
- Comprehensive analytical results table,
- Discussion of the sampling results,
- Laboratory reports for the sampling event,
- Data validation results for the data, and
- Figures showing sampling locations and laboratory analytical results.

## 4.0 REFERENCES

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LT Environmental, Inc. (LTE) (2017). *Excavation, Delineation, and Stockpile Sampling Summary Report*, Kutz Canyon Gas Plant – GCNM Right-of-Way, San Juan County, New Mexico. January 18.

New Mexico Oil Conservation Division (1993). *Guidelines for Remediation of Leaks, Spills and Releases*. Santa Fe, New Mexico. August 13.

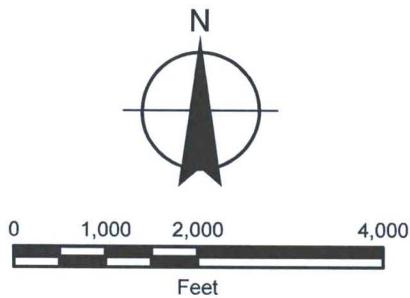
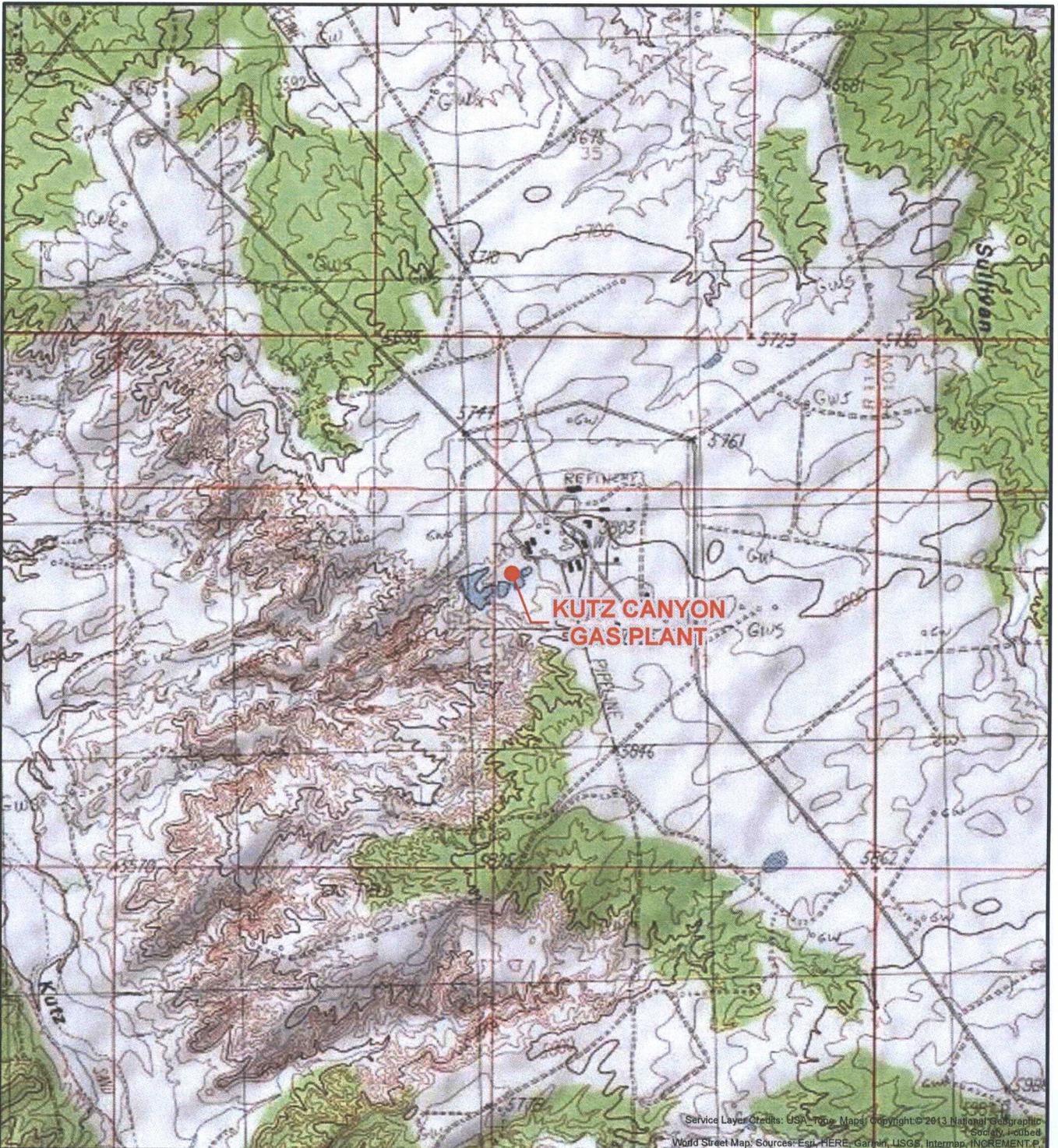
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## Figures

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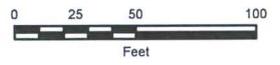
WILLIAMS FOUR CORNERS LLC	
KUTZ CANYON GAS PLANT SAN JUAN COUNTY, NEW MEXICO	
FIGURE NUMBER <b>1</b>	<b>SITE LOCATION</b>
 6380 South Fiddlers Green Circle Suite 310 Greenwood Village, Colorado 80111 www.APTIM.com	

C:\Williams\Kutz\Chimney\GIS\_Documents\Project\_Maps\Map\SB\_02\_proposed\_soil\_boring\_locations.aprx Analyt\_csbh.docx Date: 4/18/2018 8:12 AM



**Legend**

- Proposed Soil Boring
- Soil Boring
- ⊙ Seep
- EX-South @ 10' Composite
- TR01 @ 8' Composite
- TR02 @ 6' Composite
- Trench Groundwater
- Electrical Line
- Ground Line
- Large Gas Line
- Line
- NMCCO Line
- WFS Flare Line
- Gas Company of New Mexico Pipeline
- - Excavation Extent
- Estimated Extent of TPH and BTEX Impacts Requiring Excavation and Disposal
- Area of Surface Staining



WILLIAMS FOUR CORNERS LLC

KUTZ CANYON GAS PLANT  
SAN JUAN COUNTY, NEW MEXICO

FIGURE NUMBER  
**2**

**PROPOSED SOIL BORING LOCATIONS**



6380 South Fiddlers Green Circle  
Suite 310  
Greenwood Village, Colorado 80111  
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Service Layer Credits: World Imagery | Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community