

State of Colorado  
Oil and Gas Conservation Commission

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Receive Date:  
11/21/2017

Report taken by:  
Jim Hughes

Site Investigation and Remediation Workplan (Supplemental Form)

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. However, this shall not preclude the Operator from taking immediate action to protect public health or safety, the environment, wildlife, or livestock.

This Form 27 describes site conditions as currently understood by the Operator; approval of this Form 27 by COGCC is based on the site conditions accurately described herein; any changes in site conditions identified during or subsequent to the performance of the approved workplan may necessitate additional investigation or remediation which shall be described on a supplemental Form 27.

This Form 27 is intended to provide basic information regarding the proposed site investigation and remediation actions, but the workplan may be more fully described in attached documentation.

Refer to Rules 340, 905, 906, 907, 908, 909, and 910

OPERATOR INFORMATION

Name of Operator: <u>WPX ENERGY PRODUCTION LLC</u>	Operator No: <u>96705</u>	<b>Phone Numbers</b>
Address: <u>P O BOX 3102 MS-25-2</u>		Phone: <u>(505) 3331880</u>
City: <u>TULSA</u> State: <u>OK</u> Zip: <u>74101</u>		Mobile: <u>(505) 3869693</u>
Contact Person: <u>Deborah Watson</u>	Email: <u>deborah.watson@wpxenergy.com</u>	

PROJECT, PURPOSE & SITE INFORMATION

**PROJECT INFORMATION**  
Remediation Project #: 10423 Initial Form 27 Document #: 401389779

**PURPOSE INFORMATION**

<input type="checkbox"/> 901.e. Sensitive Area Determination	<input type="checkbox"/> 909.c.(5), Rule 910.b.(4): Remediation of impacted ground water
<input checked="" type="checkbox"/> 909.c.(1), Rule 905: Pit or PW vessel closure	<input type="checkbox"/> Rule 909.e.(2)A.: Notice completion of remediation in accordance with Rule 909.b.
<input type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation	<input checked="" type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project
<input type="checkbox"/> 909.c.(3), Rule 907.e.: Land treatment of oily waste	<input type="checkbox"/> Rule 906.c.: Director request
<input type="checkbox"/> 909.c.(4), Rule 908.g.: Centralized E&P Waste Management Facility closure	<input checked="" type="checkbox"/> Other <u>Pit tank removal</u>

**SITE INFORMATION** N Multiple Facilities ( in accordance with Rule 909.c. )

Facility Type: <u>LOCATION</u>	Facility ID: <u>325159</u>	API #: _____	County Name: <u>LA PLATA</u>
Facility Name: <u>IGNACIO 33-8-N33N8W 10NESW</u>	Latitude: <u>37.117710</u>	Longitude: <u>-107.705880</u>	
	** correct Lat/Long if needed: Latitude: <u>37.117664</u>	Longitude: <u>-107.705714</u>	
QtrQtr: <u>NESW</u>	Sec: <u>10</u>	Twp: <u>33N</u>	Range: <u>8W</u> Meridian: <u>N</u> Sensitive Area? <u>Yes</u>

**SITE CONDITIONS**

General soil type - USCS Classifications SC Most Sensitive Adjacent Land Use native-range

Is domestic water well within 1/4 mile? Yes Is surface water within 1/4 mile? Yes

Is groundwater less than 20 feet below ground surface? No

**Other Potential Receptors within 1/4 mile**

Dry arroyo located approximately 575 ft SE of pit tank

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> E&P Waste      | <input type="checkbox"/> Other E&P Waste             | <input type="checkbox"/> Non-E&P Waste |
| <input checked="" type="checkbox"/> Produced Water | <input type="checkbox"/> Workover Fluids             | _____                                  |
| <input type="checkbox"/> Oil                       | <input type="checkbox"/> Tank Bottoms                |  |
| <input type="checkbox"/> Condensate                | <input type="checkbox"/> Pigging Waste               |  |
| <input type="checkbox"/> Drilling Fluids           | <input type="checkbox"/> Rig Wash                    |  |
| <input type="checkbox"/> Drill Cuttings            | <input type="checkbox"/> Spent Filters               |  |
|  | <input type="checkbox"/> Pit Bottoms                 |  |
|  | <input type="checkbox"/> Other (as described by EPA) | _____                                  |

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
UNDETERMINED	SOILS	unlikely, possible PW impact	Will be determined based on field screening and laboratory analysis of soil sample.

## INITIAL ACTION SUMMARY

Description of initial action or emergency response measures take to abate, investigate, and/or remediate impacts associated with E&P Waste.

No impact to the environment anticipated. Current vessel consists of fiberglass tank with banded 40-mil plastic liner.

## PROPOSED SAMPLING PLAN

### Proposed Soil Sampling

Will soil samples be collected as part of this investigation? ( Number, type (grab/composite), analyses, and locations of samples ):

Existing vessel to be removed by excavation of surrounding soils, removal of tank and liner, offsite disposal of tank and liner at permitted landfill. WPX will collect one sample at the low/deepest point beneath the tank. One background sample (arsenic) will be collected. If any visibly impacted soil is identified beneath the tank, an additional sample will be collected from within the impacted area.

### Proposed Groundwater Sampling

Will groundwater samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

Not anticipated.

### Proposed Surface Water Sampling

Will surface water samples be collected as part of this investigation? ( Number, analyses, and locations of samples ):

Not anticipated.

## Additional Investigative Actions

Additional alternative investigative actions described in attached Site Investigation Plan ( summary ):

\_\_\_\_\_

# SITE INVESTIGATION REPORT

## SAMPLE SUMMARY

### Soil

Number of soil samples collected 1

Number of soil samples exceeding 910-1 0

Was the areal and vertical extent of soil contamination delineated? No

Approximate areal extent (square feet) 16

### NA / ND

--        Highest concentration of TPH (mg/kg) 706.4  
           1

--        Highest concentration of SAR 3.89

BTEX > 910-1 No

Vertical Extent > 910-1 (in feet) 6

### Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? No

Depth to groundwater (below ground surface, in feet)       

Number of groundwater monitoring wells installed       

Number of groundwater samples exceeding 910-1       

       Highest concentration of Benzene (µg/l)       

       Highest concentration of Toluene (µg/l)       

       Highest concentration of Ethylbenzene (µg/l)       

       Highest concentration of Xylene (µg/l)       

       Highest concentration of Methane (mg/l)       

### Surface Water

0 Number of surface water samples collected

       Number of surface water samples exceeding 910-1

If surface water is impacted, other agency notification may be required.

## OTHER INVESTIGATION INFORMATION

Were impacts to adjacent property or offsite impacts identified?

Were background samples collected as part of this site investigation?

One background sample was analyzed for arsenic. See attached laboratory report.

Was investigation derived waste (IDW) generated as part of this investigation?

Volume of solid waste (cubic yards)       

Volume of liquid waste (barrels)       

Is further site investigation required?

Impacted material will be excavated from the area beneath the pit tank. Impacted soil was located at 6 feet below ground surface.  
1

# REMEDIAL ACTION PLAN

Does this Supplemental Form 27A include changes to a previously approved Remedial Action Plan? No \_\_\_\_\_

## SOURCE REMOVAL SUMMARY

Describe how source is to be removed.

Existing buried tank to be removed by excavation of surrounding soils, removal of tank and liner, offsite disposal of tank and liner at permitted landfill.

11/6/17: Based on laboratory reports, the sample collected from beneath the pit tank reported a TPH concentration above the Table 910-1 concentration of 500 mg/kg. Impacted material will be excavated on November 9 and a minimum of 1 sample will be collected from within the excavated area and analyzed for TPH only.

## REMEDICATION SUMMARY

Describe how remediation of existing impacts to soil and groundwater is to be accomplished (i.e. summarize remedial action plan). Provide a brief narrative description including: technical justification, schedule for implementation, estimated time to attain NFA status, plus plans and specifications for the selected remedial action technology.

If soil impact found based on soil screening/sampling, impacted soils will be excavated to extent practical or until contamination is below regulatory limits. Excavated soils to be transported offsite to a permitted landfarm or landfill. If extent of contamination indicates impact beyond site boundaries and/or water resources, a revised remediation workplan will be submitted.

Update: Impacted soils were removed on 11/9/2017. The excavation measured 15 feet by 15 feet. Impacted material was located between 6 ft bgs and 8 ft bgs. Crews began removing material for disposal at around 4-5 ft bgs in order to remove all potentially impacted material. Five confirmation samples were collected from within the excavation. Excavation was back filled with clean soil on 11/15/2017.

## Soil Remediation Summary

In Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

Ex Situ

Yes Excavate and offsite disposal  
\_\_\_\_\_ If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_ 45  
Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_  
No Excavate and onsite remediation  
\_\_\_\_\_ Land Treatment  
\_\_\_\_\_ Bioremediation (or enhanced bioremediation)  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Other \_\_\_\_\_

## Groundwater Remediation Summary

Bioremediation ( or enhanced bioremediation )  
\_\_\_\_\_ Chemical oxidation  
\_\_\_\_\_ Air sparge / Soil vapor extraction  
\_\_\_\_\_ Natural Attenuation  
\_\_\_\_\_ Other \_\_\_\_\_

## GROUNDWATER MONITORING

If groundwater has been impacted, describe proposed monitoring plan, including # of wells or sample points, monitoring schedule, analytical methods, points of compliance. Attach a groundwater monitoring location diagram.

## REMEDIATION PROGRESS UPDATE

### PERIODIC REPORTING

**Frequency:**  Quarterly  Semi-Annually  Annually  Other \_\_\_\_\_

**Report Type:**  Groundwater Monitoring  Land Treatment Progress Report  O&M Report  
 Other \_\_\_\_\_

### WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? Yes \_\_\_\_\_

Describe beneficial use, if any, of E&P Waste derived from this remediation project:

Impacted soils were transported to landfarm for disposal.

Volume of E&P Waste (solid) in cubic yards \_\_\_\_\_ 45

E&P waste (solid) description hydrocarbon impacted soils \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: JFJ Landfarm/Industrial Ecosystems, Inc. \*Permit #: NM 01-0010B \_\_\_\_\_

Volume of E&P Waste (liquid) in barrels \_\_\_\_\_ 0

E&P waste (liquid) description \_\_\_\_\_

COGCC Disposal Facility ID #, if applicable: \_\_\_\_\_

Non-COGCC Disposal Facility: \_\_\_\_\_

## REMEDIATION COMPLETION REPORT

### REMEDIATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? Yes \_\_\_\_\_

Do all soils meet Table 910-1 standards? Yes \_\_\_\_\_

Does the previous reply indicate consideration of background concentrations? Yes \_\_\_\_\_

Are the only residual soil impacts pH, SAR, or EC at depths greater than 3 feet below ground surface? \_\_\_\_\_

Does Groundwater meet Table 910-1 standards? Yes \_\_\_\_\_

Is additional groundwater monitoring to be conducted? \_\_\_\_\_

## RECLAMATION PLAN

### RECLAMATION PLANNING

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing.

No seeding or surface restoration planned until site abandonment.

Is the described reclamation complete? No \_\_\_\_\_

Does the reclamation described herein constitute interim or final reclamation of the Oil and Gas Location?

Interim?  Final?

Did the Surface Owner approve the seed mix? \_\_\_\_\_

If NO, does the seed mix comply with local soil conservation district recommendations? \_\_\_\_\_

## IMPLEMENTATION SCHEDULE

### PRIOR DATES

Date of Surface Owner notification/consultation, if required. \_\_\_\_\_

Actual Spill or Release date, if known. \_\_\_\_\_

### SITE INVESTIGATION DATES

Date of Initial Actions described in Site Investigation Plan (start date). 08/30/2017

Date of commencement of Site Investigation. 08/30/2017

Date of completion of Site Investigation. 11/10/2017

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 11/09/2017

Date of completion of Remediation. 11/15/2017

### SITE RECLAMATION DATES

Date of commencement of Reclamation. \_\_\_\_\_

Date of completion of Reclamation. \_\_\_\_\_

### OPERATOR COMMENT

Please contact me with any questions.

Thank you.

I hereby certify all statements made in this form are to the best of my knowledge true, correct, and complete.

Signed: Deborah Watson

Title: Environmental Specialist

Submit Date: 11/21/2017

Email: deborah.watson@wpenergy.com

Based on the information provided herein, this Application for Site Investigation and Remediation Workplan complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: Jim Hughes

Date: 11/27/2017

Remediation Project Number: 10423

### COA Type

### Description

<u>COA Type</u>	<u>Description</u>

## Attachment Check List

Upon approval, the approved Form 27 and all listed attachments will be indexed to the Remediation Project file. Only the approved Form 27 will also be indexed to the related Facilities.

<u>Att Doc Num</u>	<u>Name</u>
401465248	FORM 27-SUPPLEMENTAL-SUBMITTED
401465254	ANALYTICAL RESULTS
401465268	MAP

Total Attach: 3 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Environmental	Based on review of information presented, it appears that no further action is necessary at this time, and COGCC approves the closure request. However, should future conditions at the site indicate contaminant concentrations in soils exceeding COGCC standards or if ground water is found to be significantly impacted, then further investigation and/or remediation activities may be required at the site.	11/27/2017

Total: 1 comment(s)