

# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402147071

Receive Date:

Report taken by:

## 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: UTAH GAS OP LTD DBA UTAH GAS CORP	Operator No: 10539	Phone Numbers Phone: (970) 6971550 Mobile: (970) 3091022
Address: 1125 ESCALANTE DR		
City: RANGELY	State: CO Zip: 81648	
Contact Person: Charlie Jensen	Email: cjensen@telesto-inc.com	

### PROJECT, PURPOSE & SITE INFORMATION

#### PROJECT INFORMATION

Remediation Project #: 11538

Initial Form 27 Document #: 401693839

#### 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 checked="" type="checkbox"/> 909.c.(2), Rule 906: Spill/Release Remediation                 | <input type="checkbox"/> Rule 909.e.(2)B.: Closure of remediation project                                  |
| <input checked="" 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 type="checkbox"/> Other   |

#### SITE INFORMATION

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

Facility Type: PIT	Facility ID: 104322	API #:	County Name: RIO BLANCO
Facility Name: FEDERAL 8-1	Latitude: 39.894058	Longitude: -108.977577	
** correct Lat/Long if needed: Latitude:		Longitude:	
QtrQtr: NWNE	Sec: 8	Twp: 2S	Range: 103W Meridian: 6 Sensitive Area? No

#### SITE CONDITIONS

General soil type - USCS Classifications CL

Most Sensitive Adjacent Land Use Rangeland

Is domestic water well within 1/4 mile? No

Is surface water within 1/4 mile? No

Is groundwater less than 20 feet below ground surface? Yes

Other Potential Receptors within 1/4 mile

# SITE INVESTIGATION PLAN

## TYPE OF WASTE:

- ☒ E&P Waste      ☐ Other E&P Waste      ☐ Non-E&P Waste
- ☒ Produced Water      ☐ Workover Fluids
- ☐ Oil      ☐ Tank Bottoms
- ☐ Condensate      ☐ Pigging Waste
- ☐ Drilling Fluids      ☐ Rig Wash
- ☐ Drill Cuttings      ☐ Spent Filters
- ☐ Pit Bottoms
- ☐ Other (as described by EPA)

## DESCRIPTION OF IMPACT

Impacted?	Impacted Media	Extent of Impact	How Determined
Yes	SOILS	In the vicinity of the earthen pit	Visual and initial 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.

On May 23, 2018, Utah Gas Corp collected a soil sample from near the base of an earthen blowdown pit recently acquired from Wexpro. Utah Gas Corp is taking the earthen pit out of service and plans to remediate/reclaim the surface. The soil sample collected shows impacts above the COGCC Table 910 -1 standards. This data will assist in the remedial options proposed. A eForm 19 was submitted and approved. COGCC recommends a 72 hour notice prior to proposed excavation activities.

## 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 ):

Soil samples will be collected and analyzed for the Table 910-1 constituents. The number of samples will be dependent on the extent of excavation. At a minimum, soil samples (5) will be collected from each side wall and from the base of the excavation. A background sample to quantify arsenic and SAR may be collected from adjacent the well pad.

07/18/2019 UPDATE: A composite sample of the landfarm was collected for TPH and SVOCs. NO SVOCs detected again and TPH has decreased to 674 mg/kg.

12/12/18 UPDATE: A composite sample of the landfarm soils was collected and analyzed for TPH and SVOCs on 11/29/2018.

TPH GRO/DRO combined was reported at 1,750 mg/kg. TPH GRO/DRO on 9/24/18 was reported at 4,011 mg/kg. Utah Gas proposes to continue with the landfarm (turning, tilling).

### Proposed Groundwater Sampling

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

Groundwater is not expectedd to be encountered.

### Proposed Surface Water Sampling

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

## 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 1

Was the areal and vertical extent of soil contamination delineated? Yes

Approximate areal extent (square feet) 225

### NA / ND

-- Highest concentration of TPH (mg/kg) 674

NA Highest concentration of SAR

BTEX > 910-1 No

Vertical Extent > 910-1 (in feet) 6

### Groundwater

Number of groundwater samples collected 0

Was extent of groundwater contaminated delineated? Yes

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?

☐ 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?

# 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.

The source (earthen blowdown pit) and potential soil impacts beneath/adjacent to the pit is proposed to be removed by excavation. All or a majority of the source should be removed. Soil samples will document remedial efforts. The earthen pit will be replaced with a blowdown tank.

On 9/24/18, excavation activities occurred to remove impacted soil associated with the legacy earthen pit. The impacted soils were placed on location to be land treated. The final excavation was approximately 15' x 15' x 6' deep.

## 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.

The proposed remedial plan will be physical removal by excavation. Access is open, there is space available on the pad to stage soil and equipment. Budget and timeline is aggressive. Based on the initial soil sample, Utah Gas Corp proposes to stage the impacted soil on location and use land treatment technology to remediate the soils to Table 910-1 standards

On 9/24/18, impacted soils were removed and placed on location to be landfarmed. The landfarm is approximately 50 feet long and 18 feet wide with impacted soils approximately 18 inches deep. The landfarm is bermed and is scheduled to be tilled once every two to three weeks until soils meet Table 910-1 standards. The initial soil sample (in May 2018) was compliant for BTEX; the subsequent soil samples have been analyzed for TPH and SVOCs. Four bottom corner soil samples were collected from the excavation and are compliant with the Table 910-1 standards for TPH and SVOCs. TPH ranged from 131 to 184 mg/kg in the base of the excavation; the composite soil sample for the landfarm was 4,011 mg/kg TPH. Landfarm soil composite samples are proposed to occur at the end of October 2018. The SVOCs were reported as ND this time but due to laboratory J-flags, some of the detection limits were elevated; subsequent soil samples will continue to be analyzed for SVOCs.

12/12/18 UPDATE: A composite soil sample was collected on 11/29/18 from the landfarm and analyzed for TPH and SVOCs. TPH was reported at 1,750 mg/kg - this is a decrease from 4,011 mg/kg on 9/24/18. SVOCs were ND (but detection limits were high - working with the lab on reducing the RDLs). 7/22/19 UPDATE: landfarm sample reported TPH at 674 mg/kg; continues to decrease. SVOCs not detected. Will continue to till the landfarm.

## Soil Remediation Summary

☐ In Situ

\_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

\_\_\_\_\_ Chemical oxidation

\_\_\_\_\_ Air sparge / Soil vapor extraction

\_\_\_\_\_ Natural Attenuation

\_\_\_\_\_ Other \_\_\_\_\_

☒ Ex Situ

No \_\_\_\_\_ Excavate and offsite disposal

If Yes: Estimated Volume (Cubic Yards) \_\_\_\_\_

Name of Licensed Disposal Facility or COGCC Facility ID # \_\_\_\_\_

Yes \_\_\_\_\_ Excavate and onsite remediation

Yes \_\_\_\_\_ Land Treatment

Yes \_\_\_\_\_ Bioremediation (or enhanced bioremediation)

No \_\_\_\_\_ Chemical oxidation

No \_\_\_\_\_ Other \_\_\_\_\_

## Groundwater Remediation Summary

No \_\_\_\_\_ Bioremediation ( or enhanced bioremediation )

No \_\_\_\_\_ Chemical oxidation

No \_\_\_\_\_ Air sparge / Soil vapor extraction

No \_\_\_\_\_ Natural Attenuation

No \_\_\_\_\_ 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.

## REMEDATION PROGRESS UPDATE

### PERIODIC REPORTING

**Frequency:** ☐ Quarterly ☐ Semi-Annually ☐ Annually ☒ Other Progress report with recent data.

**Report Type:** ☐ Groundwater Monitoring ☒ Land Treatment Progress Report ☐ O&M Report

☒ Other Earthen (legacy) blowdown pit

### WASTE DISPOSAL INFORMATION

Was E&P waste generated as part of this remediation? No

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

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

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

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

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

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

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

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

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

## REMEDATION COMPLETION REPORT

### REMEDATION COMPLETION SUMMARY

Is this a Final Closure Request for this Remediation Project? No

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

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

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? \_\_\_\_\_

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.

Well pad is an active production pad. Reclamation efforts will include regrading to COGCC, BLM, and safety standards.

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). \_\_\_\_\_

Date of commencement of Site Investigation. 05/23/2018

Date of completion of Site Investigation. \_\_\_\_\_

### REMEDIAL ACTION DATES

Date of commencement of Remediation. 08/27/2018

Date of completion of Remediation. \_\_\_\_\_

### SITE RECLAMATION DATES

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

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

### OPERATOR COMMENT

Attention John and Alex: eForm27 update on landfarm soil results for the Fed 8-1 (REM #11538).  
TPH results have decreased to 674 mg/kg - down from 1,750 mg/kg. Utah Gas will continue to till and schedule to sample later this fall.

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

Signed: Charlie Jensen

Title: Hydrogeologist

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

Email: cjensen@telesto-inc.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: \_\_\_\_\_

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

Remediation Project Number: 11538

### COA Type

### Description

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### 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.

### Att Doc Num

### Name

402147092	ANALYTICAL RESULTS
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Total Attach: 1 Files

### General Comments

### User Group

### Comment

### Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)