



March 12 2012

Mr. Chris Canfield
Colorado Oil and Gas Conservation Commission
Environmental Protection Specialist
Northwest Region
Rifle, CO 81650

Re: Notification of Completion of Pit Closure
FRU 297-20B, API #05-103-11128
Remediation Number 6821/Document # 2222681

Dear Mr. Canfield,

XTO Energy Inc. (XTO) completed closing the Freshwater and Reserve Pits associated with the FRU 297-20B well, Rem #6821, Doc # 2222681, on March 5, 2012. XTO is herein submitting the required Form 27, which includes the date closure of the aforementioned pits was completed and the completed closure photo.

If you should have any questions or comments please feel free to contact me at your earliest convenience (970)675-4122.

Respectfully,

Jessica Dooling
Environmental Coordinator

Jessica_dooling@xtoenergy.com

A handwritten signature in blue ink, appearing to be 'Jessica Dooling', written over the email address.

Enclosures (2)

Cc: Joe Bob Duncan
Sam Montoya
Kelly Kardos
Dee Johnson

State of Colorado
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): Pit Closure

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 100264

Name of Operator: XTO Energy

Address: 9127 S Jamacia Drive

City: Englewood

State: CO Zip: 80112

Contact Name and Telephone:

Jessica Dooling

No: 970-675-4122

Fax: 970-675-4150

API Number: 05-103-11128

County: Rio Blanco

Facility Name: Freedom Unit

Facility Number: 293830

Well Name: Freedom Unit

Well Number: FRU 297-20B

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NW/NW Sec 20, T2S, 97W, 6th PM Latitude: 39.866464 Longitude: -108.314587

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Drill Cuttings and Fluids

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): non-cropland rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Renstac channery loam, 5 to 50% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): no water wells within 1/4 mi., Black Suphur Creek greater than 1/2 mile away

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

Extent of Impact:

How Determined:

☐

Soils

☐

Vegetation

☐

Groundwater

☐

Surface Water

REMEDATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

All impacted pit contents were transported to an off-site permitted disposal/recycling facility. All pit liners were removed and transported to an off-site permitted disposal/recycling facility.

Describe how source is to be removed:

NA

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

NA

FRU 297-20B

FORM
27
Rev 6/99State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax: (303)894-2109

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REMEDIATION WORKPLAN (Cont.)

OGCC Employee

Tracking Number

Name of Operator

OGCC Operator No

Received Date:

Well Name & No: LOCATION ID # 335899

Facility Name & No: Pit Facility ID# 293830

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Available information indicates that the uppermost groundwater bearing zone is greater than 150 feet below ground surface. Soil samples were collected for laboratory analysis of subliner material. Analytical results confirm no groundwater impact potential exists.

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. Use additional sheet for description if required.

The pits will be closed and backfilled with native on-site material or material transported to the site. Material used to fill the top three feet of each pit will be obtained from on-site native material. The closed pits will be regraded per the approved pad reclamation design to provide positive drainage to the perimeter of the closed pit. Following grading activities, stockpiled topsoil will be spread across re-graded pits and seeded with a BLM approved seed mixture and application rate. Additional soil stabilization practices, such as mulching, crimping, or erosion control blankets may be employed as necessary.

Reclamation as specified in the Surface Use Plan, the BLM Conditions of Approval, and the COGCC regulations 900 and 1000 series will be completed as applicable.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe: ✓

Upon removal and proper disposal of fresh water and reserve pit contents and synthetic liners subliner samples were collected for analysis. Additionally proposed pit backfill soils were sampled and analyzed to assess if native soils had been impacted by site operations prior to initiating backfill operations. The results are attached in Table 1 Lab Summary. Based on subliner sample results no additional assessment will be necessary beneath the freshwater and reserve pits. Subliner results indicate elevated pH, SAR and arsenic levels in the Fresh Water and Reserve pits. Three foot of native material will be utilized as cover to address pH and SAR. The arsenic levels in the Fresh Water (7.5 mg/kg) and Reserve pit (3.3 mg/kg) are within the background arsenic range although above the Table 910-1 value of 0.39 mg/kg. Please refer to the associated Form 4 requesting consideration of background arsenic levels. The proposed pit backfill soils results indicate no impact by site operations.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

All pit liners and pit contents were removed to an off-site permitted disposal/recycling facility. ✓

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 10/27/11

Date Site Investigation Completed: in progress

Date Remediation Plan Submitted: 1/20/2012

Remediation Start Date: pending approval

Anticipated Completion Date: pending approval

Actual Completion Date: JDB 3/5/2012

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

Print Name: Jessica Dooling

Signed:

Title: Environmental Coordinator

Date: 1/20/2012

OGCC Approved:

Title: FOR Chris Canfield Date 02/07/2012
EPS NW Region

Table 1
Location: FRU 297-20B
Lab Summary

Updated
1/20/12

Analytical Parameter	Fresh Water Pit		Reserve Pit			Background					COGCC
(with units)	FW Subliner 12/8/11	FW Pit Backfill 10/31/11	Res Pit Contents 10/27/11	Res Pit Subliner 11/10/11	Res Pit Backfill 10/31/11	#1	#2	#3	#4	#5	Table 910-1 Concentration Levels
Accutest Job #	D30145	D29054	D28973	D29395	D29054	D29052					
Sample type (composite/discrete)	C	C	C	C	C	D	D	D	D	D	
TPH (GRO) (mg/Kg)	ND	ND	ND	ND	ND	-	-	-	-	-	-
TPH (DRO) (mg/Kg)	60	ND	6,050	262	ND	-	-	-	-	-	-
TPH (GRO + DRO) (mg/Kg)	60	ND	6,050	262	ND	-	-	-	-	-	500
Benzene (mg/Kg)	ND	ND	ND	ND	ND	-	-	-	-	-	0.170
Toluene (mg/Kg)	ND	ND	0.387	ND	ND	-	-	-	-	-	85
Ethylbenzene (mg/Kg)	ND	ND	ND	ND	ND	-	-	-	-	-	100
Xylenes (total) (mg/Kg)	ND	ND	0.961	ND	ND	-	-	-	-	-	175
Acenaphthene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	1000
Anthracene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	1000
Benzo(A)anthracene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	0.22
Benzo(B)fluoranthene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	0.22
Benzo(K)fluoranthene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	2.2
Benzo(A)pyrene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	0.022
Chrysene (mg/Kg)	0.0013	-	ND	ND	-	-	-	-	-	-	22
Dibenzo(A,H)anthracene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	0.022
Fluoranthene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	1000
Fluorene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	1000
Indeno(1,2,3-C,D)pyrene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	0.22
Napthalene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	23
Pyrene (mg/Kg)	ND	-	ND	ND	-	-	-	-	-	-	1000
Electrical Conductivity (mmhos/cm)	1.400	-	10.50	0.9	-	-	-	-	-	-	<4 or 2X BG
Sodium Adsorption Ratio (SAR)	19.7	-	15.2	10.1	-	-	-	-	-	-	<12
pH	9.98	-	12.46	9.67	-	-	-	-	-	-	6-9
Arsenic (mg/kg)	7.5	-	4.4	3.3	-	7.2	7.4	8.3	8.1	7.4	0.39
Barium (mg/kg)	326.0	-	19,200	1380	-	-	-	-	-	-	15000
Cadmium (mg/kg)	<1.2	-	<2.1	<1.2	-	-	-	-	-	-	70
Chromium (III) (mg/Kg)	29.5	-	15.4	21.6	-	-	-	-	-	-	120000
Chromium (VI) (mg/Kg)	1.0	-	<0.88	<0.47	-	-	-	-	-	-	23
Copper (mg/kg)	6.4	-	21.7	5.9	-	-	-	-	-	-	3100
Lead (inorganic) (mg/kg)	13.6	-	<11	13.1	-	-	-	-	-	-	400
Mercury (mg/kg)	<0.12	-	<0.2	<0.11	-	-	-	-	-	-	23
Nickel (mg/kg)	12.9	-	11.2	9.1	-	-	-	-	-	-	1600
Selenium (mg/kg)	<6.1	-	<110	<5.8	-	-	-	-	-	-	390
Silver (mg/kg)	<3.6	-	<6.3	<3.5	-	-	-	-	-	-	390
Zinc (mg/kg)	41.2	-	26.9	35.7	-	-	-	-	-	-	23000

Notes:

- 1) Freshwater pit contained de minimus contents, i.e. there was insufficient volume of material to collect a sample. Freshwater pit was used to stage solidified reserve pit contents prior to liner removal.
- 2) ND = not detectable to the laboratory detection limit.
- 3) Results highlighted in yellow exceed Table 910-1 parameters. Results highlighted in gray exceed Table 910-1, but are within area background levels.
- 4) "-" indicates no analysis.
- 5) One representative backfill sample was collected from native stockpiled soils to be used in backfilling one or more of the pits.
- 6) See site map (Figure 1) for pit configuration and sample locations.



Photograph 1 – View of completed pit closure, Freshwater and Reserve Pits, , photo taken 3/5/2012, N side facing S



Photograph 2 – View of completed pit closure, Freshwater and Reserve Pits, , photo taken 3/5/2012, NE side facing SW



Photos Taken: 3/5/2012

XTO FRU 297-20B
Piceance Basin, CO

Site Photographs