

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 #2222682

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information for proposed or completed operations...

RECEIVED 1/20/2012

Form with fields for OGCC Operator Number, Contact Name, Name of Operator, Address, City, State, Zip, Phone, Fax, API Number, OGCC Facility ID Number, Well/Facility Name, Location, County, Field Name, Federal, Indian or State Lease Number.

Table with columns for Survey Plat, Directional Survey, Surface Eqm't Diagram, Technical Info Page, Other.

Pit Facility ID # 293830 Location ID # 335899

General Notice

General Notice section with checkboxes for Change of Location, Change Spacing Unit, Change Operator, Abandoned Location, Spud Date, Subsequent Report of Stage, Reclamation, etc.

Technical Engineering/Environmental Notice

Technical Engineering/Environmental Notice section with checkboxes for Notice of Intent, Report of Work Done, Intent to Recomplete, etc.

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

Signed: [Signature] Date: 1/20/2012 Email: jessica.dooling@xtoenergy.com Print Name: Jessica Dooling Title: Environmental Coordinator

COGCC Approved: [Signature] Title: FOR Date: 02/07/2012

CONDITIONS OF APPROVAL IF ANY: Chris Canfield EPS NW Region

Ardenic OK [Signature]

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number:	100264	API Number:	05-103-11128
2. Name of Operator:	XTO Energy Inc.	OGCC Facility ID #	Freedom Unit 297-B1-B9
3. Well/Facility Name:	Freedom Unit	Well/Facility Number:	FRU 297-20B
4. Location (QtrQtr, Sec, Twp, Rng, Meridian):	NW/NW, Sec 20, T2S, R97W, 6th PM		

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

XTO Energy herin requests consideration of site-specific background Arsenic levels as an alternative to the Table 910-1 value for the FRU 297-20B locaiton. COGCC Table 910-1 Concentration Levels list the allowable concentration level for arsenic in soil at 0.39 mg/kg. However, COGCC has allowed site specific changes to allowable concentration levels based upon background concentration levels. At other locations COGCC has allowed the determination of allowable levels based upon a 10 % variability factor applied to background soil concentration values where the maximum allowable level is computed by multiplying the highest detected background concentration by 1.1.

Five representative background samples were collected from undisturbed areas adjacent to the subject location. Arsenic concentrations in those samples ranged from 7.2 mg/kg to 8.3 mg/kg. Applying the 10% variability factor to the highest concentration detected results in an allowable arsenic concentration level of 9.13 mg/kg.

Attached please find the Lab Data Summary Table and the Site Map indicating arsenic sampling locations attached.

Table 1  
Location: FRU 297-20B  
Lab Summary

Updated:  
1/20/12

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

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



B-1  
ARSENIC: 7.2 mg/kg ⊗

B-2  
ARSENIC: 7.4 mg/kg ⊗

B-3  
ARSENIC: 8.3 mg/kg ⊗

B-4  
ARSENIC: 8.1 mg/kg ⊗

RESERVE PIT SUBLINER  
TPH: 262 mg/kg  
ARSENIC: 3.3 mg/kg

FRESHWATER PIT SUBLINER  
TPH: 60 mg/kg  
ARSENIC: 7.5 mg/kg

B-5  
ARSENIC: 7.4 mg/kg ⊗

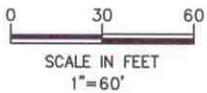
-∞  
-∞

**NOTES:**

1. ALL SAMPLE RESULTS ARE PIT BOTTOM SUBLINER COMPOSITE SAMPLES UNLESS OTHERWISE NOTED.
2. BACKGROUND ARSENIC RESULTS ARE DISCRETE SAMPLES.
3. ND INDICATES NO TPH DETECTED TO LABORATORY DETECTION LIMIT.

**LEGEND**

---	EDGE OF PAD
---	EDGE OF PITS
-∞	WELL HEAD



s:\proj\exxonmobil environmental\1108-01a fru 297-20b\civil3d\tph arsenic.dwg.1/20/12

DESIGNED: DK	CHECKED: JH	FIGURE 1	NOTES:	
DATE: 1/20/12	DRAWN: DRF		DATE	REVISIONS
FILE NAME: tph arsenic	SHEET NO. 1 of 1			
PROJECT NO. 1108-01A	SCALE: 1"=60'			

**KRW CONSULTING, INC.**  
8000 W. 14TH AVENUE, SUITE 200  
LAKEWOOD, COLORADO  
(303) 239-9011

FIGURE 1  
PICEANCE CREEK  
FRU 297-20B  
SITE MAP WITH SELECT TPH  
AND ARSENIC RESULTS  
PREPARED FOR XTO ENERGY