

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

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No:

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):

OGCC Operator Number: 66561	Contact Name and Telephone:
Name of Operator: OXY USA Inc.	Daniel Padilla
Address: 760 Horizon Drive	No: (970) 263-3637
City: Grand Junction State: CO Zip: 81506	Fax: (970) 263-3694
API Number: 05-077-09337	County: Mesa
Facility Name: Hawkins Ranch Pit	Facility Number: 414313
Well Name: Hawkins Ranch	Well Number: 10-4
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, Sec 10, T10S, R94W, 6th PM Latitude: 39.21071 Longitude: -107.87404	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): NA, Reserve Pit Closure

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.): Rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Hesperus-Pagoda Complex

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Water Well ~ 1074' SW of Pit, Unnamed Irrigation Ditch ~ 405' N of Pit, Salt Creek ~ 740' E of Pit

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input type="checkbox"/> Soils	None	See attached sample results
<input type="checkbox"/> Vegetation	No impact	Visual
<input type="checkbox"/> Groundwater	NA	Visual inspection below pit liner
<input type="checkbox"/> Surface Water	NA	Visual

REMEDIATION WORKPLAN

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

Oxy permitted this pit in October of 2009 as a special purpose pit for drilling and completion operations. Oxy has closed this pit and is providing this closure form/plan for COGCC review/approval.

Describe how source is to be removed:

Prior to pit closure, background samples were taken. Oxy removed liquids and solids found inside the lined pit. The liquids were disposed of at Danish Flats in Utah. Solids found in the pit were blended with native fill material and placed within the pit excavation for sampling. Oxy characterized the pit liner and soil found inside the pit. Based on the sampling results of the pit liner, the liner was disposed of at the Mesa County Landfill. Based on the sampling results of the pit bottom, all concentrations following the Table 910-1 analytes are below COGCC Table 910-1 standards. Arsenic and pH are found to be above the respective allowable Table 910-1 concentration, but below the undisturbed background samples collected.

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.:

Liquids and solids were removed from the pit. The liquids were transported for disposal to Danish Flats, a licensed commercial facility located in Utah. Soils found within the reserve pit were blended with native fill material and placed into the pit excavation for sampling. Analytical concentrations found in the pit bottom are below the COGCC Table 910-1 concentrations except for arsenic and pH, which are below the undisturbed background samples collected. The 36-mil HDPE liner was characterized and disposed of at the Mesa County Landfill. The site will be contoured and seeded.

FORM  
27  
Rev 6/99

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



Facility ID # 414313  
Location ID # 334520  
API # 077-09337  
REN # 5302

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: Hawkins Ranch Pit

Page 2

### REMEDIATION WORKPLAN (Cont.)

OGCC Employee: \_\_\_\_\_

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

No groundwater was impacted by the pit. The pit was lined with a 36-mil HDPE liner. Drill cuttings, completion sand, and initial completion flowback fluids were contained in the pit. There was no evidence of staining below the liner.

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 pit was constructed at grade of Oxy's Hawkins Ranch 10-4 multi-well pad, and was approximately 6' deep. Based on analytical results from the pit liner, Mesa County Landfill accepted the liner for final disposal. Based on the pit bottom sample results, all analytical concentrations were found to be below Table 910-1 concentrations except for arsenic and pH, which is found to be below undisturbed background samples, see attached table results. The reclaimed pit will be contoured to minimize stormwater runoff. The reclaimed pit area will also be seeded by the next growing season and later monitored to determine revegetation efforts.

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:

Oxy will monitor the site for stormwater compliance and will follow up the next growing season to determine if revegetation efforts were successful.

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

Oxy removed all solids and liquids within the pit. Oxy transported the liquids for disposal to Danish Flats, a licensed commercial disposal facility. Soils found within the reserve pit were mixed with native fill material and placed into the pit excavation for sampling. Samples collected from the pit bottom determined all concentrations to be below COGCC Table 910-1 concentrations except for arsenic and pH, which were found to be below undisturbed background concentrations. Note that the reserve pit liner was disposed of at the Mesa County Landfill.

### IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>2/15/2009</u>	Date Site Investigation Completed: <u>4/5/2010</u>	Date Remediation Plan Submitted: <u>11/1/10</u>
Remediation Start Date: <u>3/4/2009</u>	Anticipated Completion Date: <u>5/1/2009</u>	Actual Completion Date: <u>4/27/2009</u>

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

Print Name: Daniel Padilla

Signed: [Signature]

Title: Regulatory Advisor

Date: 11/1/10

OGCC Approved: [Signature]

Title: FOR Chris Cam

EPS NW Region

Date: 12/07/2011

## Pit Reclaims - Collbran

Pad #:	Hawkins 10-4
Sample Date:	03/27/2009
Clearance Achieved Date:	

	MCL (mg/kg)	Sample Identifications (mg/kg)					
		Post Reclaim	Background	Background - S (05-06-10)	Background - W (05-06-10)	Background - N (05-06-10)	Background - E (05-06-10)
<b>Organics in Soil</b>							
TPH (GRO and DRO)	500	<0.50	<0.050	-	-	-	-
Benzene	0.17	<0.0025	<0.0025	-	-	-	-
Toluene	85	<0.025	<0.025	-	-	-	-
Ethylbenzene	100	<0.0025	<0.0025	-	-	-	-
Xylenes	175	<0.0075	<0.0075	-	-	-	-
<b>Organics in Soil (PAH's)</b>							
Acenaphthene	1000	<0.033	<0.033	-	-	-	-
Anthracene	1000	<0.033	<0.033	-	-	-	-
Benzo(A)anthracene	0.22	<0.033	<0.033	-	-	-	-
Benzo(B)fluoranthene	0.22	<0.033	<0.033	-	-	-	-
Benzo(K)fluoranthene	2.2	<0.033	<0.033	-	-	-	-
Benzo(A)pyrene	0.022	<0.033	<0.033	-	-	-	-
Chrysene	22	<0.033	<0.033	-	-	-	-
Dibenzo(A,H)anthracene	0.022	<0.033	<0.033	-	-	-	-
Fluoranthene	1000	<0.033	<0.033	-	-	-	-
Flourene	1000	<0.033	<0.033	-	-	-	-
Indeno(1,2,3,C,D)pyrene	0.22	<0.033	<0.033	-	-	-	-
Napthalene	23	<0.033	<0.033	-	-	-	-
Pyrene	1000	<0.033	<0.033	-	-	-	-
<b>Inorganics in Soil</b>							
EC	<4 mmhos/cm or 2X background	0.330	0.310	-	-	-	-
SAR	<12	5.0	8.4	-	-	-	-
pH	6-9	8.0	9.3	-	-	-	-
<b>Metals in Soils</b>							
Arsenic	0.39	0.66	<0.27	1.8	2.9	2.8	3.3
Barium	15000	550	460	-	-	-	-
Boron (Hot Water Soluble)	2 (mg/L)	0.6	0.5	-	-	-	-
Cadmium	70	0.60	0.70	-	-	-	-
Chromium	12000	12.0	12.0	-	-	-	-
Chromium VI	23	<2.0	<2.0	-	-	-	-
Copper	3100	11.0	14.0	-	-	-	-
Lead	400	8.9	11	-	-	-	-
Mercury	23	<0.020	<0.020	-	-	-	-
Nickel	1600	10.0	24.0	-	-	-	-
Selenium	390	<1.0	<1.0	-	-	-	-
Silver	390	<0.50	<0.50	-	-	-	-
Zinc	23000	36.0	33.0	-	-	-	-