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Proj # 4620

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

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: 66571
Name of Operator: Oxy USA WTP LP
Address: 2754 Compass Dr., Ste. 170
City: Grand Junction State: CO Zip: 81506

Contact Name and Telephone:
Daniel I. Padilla
No: 970-263.3637
Fax: 970.243.2525

API Number: 05-045-14445-00
County: Garfield
Facility Name: Cascade Creek
Facility Number: 697-09-61
Well Name: Cascade Creek
Well Number: 697-09-52B
Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWSE, S9S, T6S, R97W, 6th PM Latitude: 39.53513 Longitude: -108.22485

TECHNICAL CONDITIONS

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

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 (shrub and brush land)

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Previously identified on Form 2A

Potential receptors (water wells within 1/4 mi, surface waters, etc.): ~592 (unregistered water well) and ~595 unnamed drainage of Cascade Canyon

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

Impacted Media (check):	Extent of Impact:	How Determined:
☑ Soils	TBD	sediment sampling will be conducted
☑ Vegetation	Small areas of dead grasses near creek	Visually
☑ Groundwater	TBD	
☑ Surface Water	Sheen on creek; dissolved BTEX	Visually, sample results

REMEDIATION WORKPLAN

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

Installed containment dams along stream to contain and control release. Dam 1 located ~200' downstream of N seep in corral near cabin. Dam 2 located ~2100' downstream from Dam 1, just upstream from the NE drainage that converges into Cascade Canyon Dam 2 sited at end of stream (drainage) in order to follow up with assessment of sources/seeps. Three groundwater interceptor trenches were constructed parallel to the stream next to seep areas to collect groundwater prior to entering stream. All contained water is pumped to FRAC tanks (4ea) and further pumped into lined Mesa storage ponds. Installed both series of booms and strawbales to contain and capture any hydrocarbon liquids. Currently conducting daily suction of any floating hydrocarbon liquids at boom/straw bale locations as required. See response to Item 5 of NOAV 2009191192 for additional details.

Describe how source is to be removed:

Existing two wells shut in on May 6, 2008). No further production fluids are being released to the former pit. Reserve pit was reclaimed with a new liner installed. Once production resumes (2009), all produced fluids will be temporarily stored onsite in tanks, prior to transfer to the Cascade Central Water Facility for separation. A lined production pit will be maintained on location for emergency situations (will be permitted in accordance with Notice to Operators, Drilling wells within ¾ mile of the rim of the Roan Plateau in Garfield County, (June 12, 2008)).

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.:

Approximately 3,000 bbl/day of recovered groundwater and surface water are being pumped from the impacted area. Impacted vegetation will be removed from the creek bed. The release will be allowed to bioremediate insitu and surface water sampling will continue until drainage flow ceases, and will re-commence in the Spring (2009) once surface water flow resumes. If sediment samples indicate chemical-of-concern soil concentrations above COGCC clean-up requirements, the remediation plan will be modified to include management of impacted areas.

Submit Page 2 with Page 1

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Page 2

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Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

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

Groundwater at the release area is unconfined and discharges seasonally, as evidenced by the ephemeral nature of the impacted unnamed tributary recharged by the local groundwater flow. Groundwater monitoring will be conducted by collecting samples from the groundwater interceptor trenches and by collecting surface water samples from the seeps discharging into the unnamed tributary. Sampling points, frequency and analytical methods are detailed in Appendix G.

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.

Interim reclamation will include implementation of stormwater BMPs as outlined in our NOAV response dated July 11, 2008. Final reclamation will involve removing the earthen dams and returning the tributary channel to pre-remediation contours. Disturbed excavation areas will be reseeded to provide slope stabilization. Reseeding will be completed in accordance with OXY's Stormwater Management Plan and Noxious Weed Management Plan.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.
Analytical results and drawings showing sampling locations are included in Appendix F.
Is further site investigation required? ☑ Y ☐ N If yes, describe:

OXY will continue surface water monitoring in the drainage, groundwater monitoring in the interceptor trenches, and will obtain sediment samples from the seep areas.

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

Currently constructing a temporary storage and treatment facility to process impacted material for reuse/reclamation. The ground and surface water collected from the earthen dam areas and interceptor trenches will be processed in the facility water management system.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 06/16/08	Date Site Investigation Completed: ongoing	Date Remediation Plan Submitted: 07/11/08
Remediation Start Date: 06/16/08	Anticipated Completion Date: 06/30/09	Actual Completion Date:

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

Print Name: Daniel I. Padilla Signed: Daniel I. Padilla

Title: Designated Agent Date: 7/10/08

OGCC Approved: _____ Title: _____ Date: _____