

State of Colorado  
Oil and Gas Conservation Commission

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



#1943801

FOR OGCC USE ONLY

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**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.

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No: NA

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

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

OGCC Operator Number: #100185	Contact Name and Telephone: Jason D. Schmidt
Name of Operator: EnCana Oil & Gas (USA) Inc.	No: 720-876-5550
Address: 370 17th St., Suite 1700	Fax: 720-876-6550
City: Denver State: CO Zip: 80202	
API Number: See Attached List	County: See Attached List
Facility Name: See Attached List	Facility Number: See Attached List
Well Name: See Attached List	Well Number: See Attached List
Location: (QtrQtr, Sec, Twp, Rng, Meridian): See Attached List	Latitude: See Attached List Longitude: See Attached List

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Produced Water & 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.): Grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Clay, shell and sand

Potential receptors (water wells within 1/4 mi, surface waters, etc.): None

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	Minimum	Site inspection
<input checked="" type="checkbox"/> Vegetation	None	Pit is on the well pad
<input checked="" type="checkbox"/> Groundwater	None	Deep ground water in this area
<input checked="" type="checkbox"/> Surface Water	None	A few dry creek beds, but no permanent flow

**REMEDIALTION WORKPLAN**

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

Reviewed well site information in the COGCC database. Reviewed EnCana well files. Began site inspections Feb. 20, 2009.

Describe how source is to be removed:

After a soil analysis has been completed and standards meet or are below Table 910 levels we will reclaim the pit or pits with available soils on the well site. No additional soil will be disturbed outside the well pad's existing boundaries. If soil samples exceed acceptable Table 910 levels we will bio remediate on site with the approval of the COGCC and the BLM where applicable. When bio-remediation is unacceptable, contaminated soils will be removed to an approved disposal facility and replaced with soils acceptable to local vegetation and existing soil types.

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.:

First choice will be to bio-remediate onsite with approval of the COGCC and the BLM where applicable. Bio-remediation will consist of applying the hydrocarbon digesting microbes to break down the hydrocarbon base, isolate the area with fencing to keep wildlife out of the site, berm the area to minimize storm water contaminations. During the growing season, temperatures above 40 degrees, site will be monitored frequently and stirred with a backhoe to accelerate the process until all samples of the existing pit area meets Table 910 standards. If onsite bio-remediation is unacceptable, contaminated soils will be removed to acceptable Table 910 standards and disposed of in an approved disposal facility. (revised 6.1.09)

Submit Page 2 with Page 1

Revised  
received email 6-17-2009



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**REMEDIAL WORKPLAN (Cont.)**

Tracking Number: ~~4477~~ 4477  
Name of Operator: ENCONA  
OGCC Operator No: 100185  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: See Attached

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

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

No ground water is anticipated on this site, however, should ground water be encountered, reclamation of the site will cease and ground water samples will be taken and tested to meet Table 910 levels.

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.

This pit or pits are old earthen blowdown pits that were approved in the early 70's and some in the 60's. These pits are located on the well pad of an existing well and will be replaced with 45 barrel tanks with secondary containment to 110% of the tank volume. Other than closing of these pits, no other reclamation of the site is planned at this time. If no bio remediation of the old pit is taking place, fill being placed in the pit will be compacted and this site will be used to set the new tank and secondary containment. If bio remediation is taking place, the site will be isolated and fenced with regular monitoring of the site and soil samples taken every 6 months until Table 910 standards have been achieved. No seeding of the site will be done due to the fact that remediation is taking place or a tank will be set onsite. Control of noxious weeds will be done in spring and fall applications.

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:

Due to high elevations and access issues in the region, no soil samples have been taken at this time. All sites will have soil samples taken and submitted to the COGCC and the BLM when conditions are favorable.

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

Any contaminated soils that need to be removed will be disposed of in an approved disposal facility. A copy of the soil samples will be made available for review and kept on record. When onsite bio remediation is approved, the site will be monitored frequently and tested every 6 months until Table 910 levels have been achieved.

**IMPLEMENTATION SCHEDULE**

Date Site Investigation Began: <u>Feb. 20, 2009</u>	Date Site Investigation Completed: <u>TBD</u>	Date Remediation Plan Submitted: <u>3/30/09</u>
Remediation Start Date: <u>TBD</u>	Anticipated Completion Date: <u>TBD</u>	Actual Completion Date: <u>TBD</u>

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

Print Name: Jason D. Schmidt

Signed: [Signature]

Title: Production Engineer

Date: June 9, 2009

OGCC Approved: [Signature]

Title: Environmental Supervisor

Date: 6-29-09

Well Name	Well Number	API Number	County	QtrQtr	Section	Township	Range	Latitude 83	Longitude 83
Hell's Hole	9107	05103096230000	Rio Blanco	NW NW	11	2S	104W	39.892356	109.042490
Hell's Hole	9108	05103092690000	Rio Blanco	NE SW	11	2S	104W	39.885097	109.038763
Hell's Hole	9112	05103091190000	Rio Blanco	NE NE	14	2S	104W	39.878621	109.028814
Park Mountain	9002	05103097810000	Rio Blanco	NE SE	35	2S	104W	39.828277	109.028033
Park Mountain	9003	05103091640000	Rio Blanco	NE NE	2	3S	104W	39.819763	109.028637
Park Mountain	9004	05103096940000	Rio Blanco	SW SW	36	2S	104W	39.824508	109.016942
Cathedral Federal	E-28	05103083430000	Rio Blanco	SW NW	28	3S	101W	39.761653	108.742543
Rock Canyon Com B	7002	05045060890000	Garfield	SW SE	11	5S	102W	39.634222	108.810583
Federal	11-U1	05103078450000	Rio Blanco	NW NW	11	3S	102W	39.807284	108.817344
Cathedral Federal	J-25	05103085890000	Rio Blanco	NW SE	25	3S	102W	39.756360	108.790061
Federal	F-34	05103085860000	Rio Blanco	SE NW	34	3S	101W	39.746507	108.721442
Federal	33-14	05103089260000	Rio Blanco	SE SW	33	3S	101W	39.739491	108.739222
Federal	B-13	05103095120000	Rio Blanco	NW NE	13	2N	97W	40.145763	108.223394
Cities Federal	5-31	05103075110000	Rio Blanco	SW NW	31	3S	101W	39.746862	108.779836
Cathedral Federal	7-18	05103082510000	Rio Blanco	NW SW	18	2S	101W	39.873496	108.779313
Cathedral Federal	I-20	05103083490000	Rio Blanco	NE SE	20	3S	101W	39.769787	108.747704
Cathedral Federal	D-22	05103087980000	Rio Blanco	NW NW	22	3S	101W	39.776826	108.721794
Cathedral Federal	10-1	05103080080000	Rio Blanco	NW SW	10	3S	101W	39.798966	108.721899
Cathedral Federal	N-36	05103082500000	Rio Blanco	SE SW	36	2S	101W	39.827094	108.684236
Cathedral Federal	31-01	05103078320000	Rio Blanco	SW NE	31	2S	100W	39.834675	108.656970
Cathedral Federal	27-2	05103078190000	Rio Blanco	SE NE	27	2S	101W	39.848673	108.711048
Cathedral Federal	29-1	05103079030000	Rio Blanco	SW SW	29	2S	101W	39.841510	108.760900
Cathedral Federal	20-1	05103078130000	Rio Blanco	NW NW	20	3S	101W	39.778077	108.759423
Cathedral Federal	1-1	05103076980000	Rio Blanco	NE NW	1	3S	101W	39.822919	108.683063
Cath Fed	31-03	05103078160000	Rio Blanco	NE NE	31	3S	101W	39.749109	108.766048
Cities Federal	7-31	05103074840000	Rio Blanco	SW NE	31	3S	101W	39.745808	108.771609
Cathedral Federal	O-31	05103082490000	Rio Blanco	SW SE	31	3S	101W	39.739359	108.770464
Kirby E	7421	05103083580000	Rio Blanco	NW SE	34	4S	102W	39.656274	108.827880
Evacuation Creek	7612	05045062750000	Garfield	NE NW	18	5S	102W	39.630169	108.887169