

FORM 2A Rev 04/01

State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number: 400130323

Oil and Gas Location Assessment

[X] New Location [ ] Amend Existing Location Location#: \_\_\_\_\_

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at http://colorado.gov/cogcc/ for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID: 422418 Expiration Date: 03/30/2014

[X] This location assessment is included as part of a permit application.

1. CONSULTATION

- [ ] This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
[X] This location is in a sensitive wildlife habitat area.
[ ] This location is in a wildlife restricted surface occupancy area.
[ ] This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 100185 Name: ENCANA OIL & GAS (USA) INC Address: 370 17TH ST STE 1700 City: DENVER State: CO Zip: 80202-5632

3. Contact Information

Name: DeAnne Spector Phone: (720) 876-5826 Fax: (720) 876-6826 email: deanne.spector@encana.com

4. Location Identification:

Name: MCU Number: 16-13A (M16W) County: GARFIELD Quarter: SESW Section: 16 Township: 7S Range: 93W Meridian: 6 Ground Elevation: 7878 Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location. Footage at surface: 661 feet FSL, from North or South section line, and 1356 feet FWL, from East or West section line. Latitude: 39.440191 Longitude: -107.782985 PDOP Reading: 0.0 Date of Measurement: 07/22/2010 Instrument Operator's Name: Ted Taggart

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: 0 Drilling Pits: 0 Wells: 20 Production Pits: 0 Dehydrator Units: 0
Condensate Tanks: 0 Water Tanks: 0 Separators: 20 Electric Motors: 0 Multi-Well Pits: 0
Gas or Diesel Motors: 0 Cavity Pumps: 0 LACT Unit: 0 Pump Jacks: 0 Pigging Station: 0
Electric Generators: 0 Gas Pipeline: 1 Oil Pipeline: 0 Water Pipeline: 1 Flare: 0
Gas Compressors: 0 VOC Combustor: 0 Oil Tanks: 0 Fuel Tanks: 0

Other: A mixing area will be set aside for the drill cuttings. A ditch will be used to flare.

6. Construction:

Date planned to commence construction: 04/01/2011 Size of disturbed area during construction in acres: 7.85  
Estimated date that interim reclamation will begin: 05/01/2012 Size of location after interim reclamation in acres: 4.65  
Estimated post-construction ground elevation: 7878 Will a closed loop system be used for drilling fluids: Yes   
Will salt sections be encountered during drilling: Yes  No  Is H2S anticipated? Yes  No   
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes  No   
Mud disposal: Offsite  Onsite  Method: Land Farming  Land Spreading  Disposal Facility   
Other: \_\_\_\_\_

7. Surface Owner:

Name: BLM CRVFO Phone: 970-876-9055  
Address: 2300 River Frontage Rd Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_  
City: Silt State: CO Zip: 81652 Date of Rule 306 surface owner consultation: \_\_\_\_\_  
Surface Owner:  Fee  State  Federal  Indian  
Mineral Owner:  Fee  State  Federal  Indian  
The surface owner is:  the mineral owner  committed to an oil and gas lease  
 is the executer of the oil and gas lease  the applicant  
The right to construct the location is granted by:  oil and gas lease  Surface Use Agreement  Right of Way  
 applicant is owner  
Surface damage assurance if no agreement is in place:  \$2000  \$5000  Blanket Surety ID \_\_\_\_\_

8. Reclamation Financial Assurance:

Well Surety ID: \_\_\_\_\_  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgmt. Surety ID: \_\_\_\_\_

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes  No   
Distance, in feet, to nearest building: 815, public road: 4500, above ground utilit: 4900  
, railroad: 33000, property line: 661

10. Current Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

11. Future Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 12 Bucklon-Inchau Loams, 25 to 50 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

NRCS Map Unit Name: \_\_\_\_\_

**13. Plant Community:**

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_

List individual species: \_\_\_\_\_

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): \_\_\_\_\_

**14. Water Resources:**

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area:  No  Yes Was a Rule 901.e. Sensitive Areas Determination performed:  No  Yes

Distance (in feet) to nearest surface water: 681, water well: 4730, depth to ground water: 88

Is the location in a riparian area:  No  Yes Was an Army Corps of Engineers Section 404 permit filed  No  Yes

Is the location within a Rule 317B Surface Water Suppl Area buffer zone:

No  0-300 ft. zone  301-500 ft. zone  501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified:  No  Yes

**15. Comments:**

The reference area will be directly next to the pad, on the North East side. Reference area is currently under snow so photos will be taken during the growing season.

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

Signed: \_\_\_\_\_ Date: 02/17/2011 Email: deanne.spector@encana.com

Print Name: DeAnne Spector Title: Regulatory Analyst

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_

*David S. Nesline*

Director of COGCC

Date: 3/31/2011

**CONDITIONS OF APPROVAL, IF ANY:**

**All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.**

**GENERAL SITE COAs:**

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines.

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit located on the well pad. The flowback and stimulation fluid tanks must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material (per Rule 604.a.(4)).

Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

**Attachment Check List**

Att Doc Num	Name
1792119	MULTI-WELL PLAN
2033668	CORRESPONDENCE
400130323	FORM 2A SUBMITTED
400131305	LOCATION PICTURES
400131311	LOCATION DRAWING
400131314	HYDROLOGY MAP
400131454	NRCS MAP UNIT DESC
400131455	CONST. LAYOUT DRAWINGS
400131458	MULTI-WELL PLAN
400131459	PROPOSED BMPs
400134516	ACCESS ROAD MAP
400134532	TOPO MAP

Total Attach: 12 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
DOW	The BMPs as submitted by the operator are applicable to the site.  by Michael Warren on Friday, March 25, 2011 at 4:00 P.M.	3/25/2011 3:57:08 PM
Permit	Operator comment: "The reclamation area will be directly next to the pad, on the North East side." I believe that should read "reference" area not "reclamation" area. Typo in lat/long corrected from plat.  Yes, it should be "reference" area. Please change this and I will try to keep the two terms separate in my mind for future Form 2As.DeAnne	3/16/2011 5:37:11 AM
OGLA	Initiated/Completed OGLA Form 2A review on 03-09-11 by Dave Kubeczko; requested clarifications and acknowledgement of fluid containment, spill/release BMPs, flowback to tanks, tank berming, no pit in fill, and cuttings low moisture content COAs from operator on 03-09-11; received acknowledgement of COAs from operator on 03-11-10; passed by CDOW on 03-25-11 with operator submitted BMPs (with permit application) acceptable; passed OGLA Form 2A review on 03-25-11 by Dave Kubeczko; fluid containment, spill/release BMPs, flowback to tanks, tank berming, and cuttings low moisture content COAs.	3/9/2011 4:57:15 PM

Total: 3 comment(s)

**BMP**

<b><u>Type</u></b>	<b><u>Comment</u></b>
Interim Reclamation	Maintenance Revegetation Monitoring BMP maintenance & monitoring Weed Management
Wildlife	Minimize the number, length and footprint of oil & gas development roads Use existing routes where possible Combine utility infrastructure planning (gas, electric & water) when possible with roadway Planning to avoid separate utility corridors Coordinate Employee transport when possible Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors. Maximize use of state-of-the-art drilling technology (e.g., high efficiency rigs, coiled-tubing unit rigs, closed-loop or pitless drilling, etc.) to minimize disturbance.  Reclaim mule deer and elk habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed.

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Construction	Terminal Containment Diversion Run-On Protection Tracking Benching Terracing ECM (Erosion Control Mulch) ECB (Erosion Control Blanket) Check Dams Seeding Mulching Water Bars Stabilized Unpaved Surfaces (Gravel) Stormwater & Snow Storage Containment Scheduling Phased Construction Temporary Flumes Culverts with inlet & outlet protection Rip Rap TRM (Turf Reinforcement Mats) Maintenance Scheduling Phased Construction Fueling BMP's Waste Management BMP's Materials Handling BMP's
Pre-Construction	Wattles Silt Fence Vegetation Buffers Slash Topsoil Windrows (diversions & ROP's) Scheduling Phased Construction

Total: 4 comment(s)