

FORM  
2A

Rev  
04/01

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 Number:

400439904

Date Received:

06/27/2013

Oil and Gas Location Assessment

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:

**433706**

Expiration Date:

**07/22/2016**

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

1. CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
- 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: Heather Mitchell  
 Phone: (720) 876-3070  
 Fax: (720) 876-4070  
 email: heather.mitchell@encana.com

4. Location Identification:

Name: Rose Number: K22W  
 County: GARFIELD  
 Quarter: NESW Section: 22 Township: 7S Range: 93W Meridian: 6 Ground Elevation: 6950

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: 2303 feet FSL, from North or South section line, and 2226 feet FWL, from East or West section line.  
 Latitude: 39.430424 Longitude: -107.761537 PDOP Reading: 1.4 Date of Measurement: 03/08/2013  
 Instrument Operator's Name: C.D. Slaugh

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

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="14"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text" value="8"/>	Water Tanks: <input type="text"/>	Separators: <input type="text" value="14"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: 1 meter house

6. Construction:

Date planned to commence construction: 08/30/2013 Size of disturbed area during construction in acres: 7.46  
 Estimated date that interim reclamation will begin: 09/14/2014 Size of location after interim reclamation in acres: 1.51  
 Estimated post-construction ground elevation: 6945 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: James Rose Phone: \_\_\_\_\_  
 Address: P.O. Box 432 Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 City: Rifle State: CO Zip: 81650 Date of Rule 306 surface owner consultation: 05/10/2013  
 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: 20100017  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgnt. Surety ID: \_\_\_\_\_

**9. Cultural:**

Is the location in a high density area (Rule 603.b.): Yes  No   
 Distance, in feet, to nearest building: 3467, public road: 612, above ground utility: 612,  
 railroad: 35963, property line: 355

**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.

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: 46. Nihill Channery Loam, 1 to 6 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: 06/18/2013  
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: 270, water well: 2373, depth to ground water: 20  
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 Supply 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:**

This pad is a fee/fee location. The pad will be reclaimed to adjacent location to the north. The distance are from the 22-9C well location. The reference area is located immediately adjacent to the west of the well pad on undisturbed ground.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.  
Signed: \_\_\_\_\_ Date: 06/27/2013 Email: heather.mitchell@encana.com  
Print Name: Heather Mitchell Title: Regulatory Analyst

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:  Director of COGCC Date: 7/23/2013

**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.**

**BASELINE GROUNDWATER TESTING COA:**

Operator shall comply with Rule 609. STATEWIDE GROUNDWATER BASELINE SAMPLING AND MONITORING. The following water well has been identified as an acceptable location:

1) Permit No. 156310-Pitman, Barbara A & Nancy S; domestic well; TD - 10' bgs; SWL - 4' bgs; FM – alluvium; located approximately 2373' to the E (downgradient-crossgradient).

Documented refusal to grant access by well owner or surface owner (for water well or spring sampling), or if no water wells or springs are located/identified within one-half mile, shall not constitute a violation of this COA.

**GENERAL SITE COAs:**

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

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

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations (as shown on the Construction Layout Drawings attachment); 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 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, if the drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) located on the well pad; or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment 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.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

**Attachment Check List**

Att Doc Num	Name
2106689	CORRESPONDENCE
400439904	FORM 2A SUBMITTED
400439975	HYDROLOGY MAP
400439978	NRCS MAP UNIT DESC
400439999	ACCESS ROAD MAP
400440001	LOCATION DRAWING
400440004	CONST. LAYOUT DRAWINGS
400440007	LOCATION PICTURES
400440009	SURFACE AGRMT/SURETY
400440530	MULTI-WELL PLAN

Total Attach: 10 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
OGLA	Initiated/Completed OGLA Form 2A review on 07-08-13 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, tank berming, flowback to tanks, GW baseline sampling, notification, and cuttings low moisture content COAs from operator on 07-08-13; received acknowledgement of COAs from operator on 07-08-13; changed distance to water well to 2373' per COGCC GIS online map; changed to sensitive area due to close SW (270') and shallow GW (20' bgs); passed by CPW on 07-01-13 with operator submitted BMPs acceptable; passed OGLA Form 2A review on 07-23-13 by Dave Kubeczko; fluid containment, spill/release BMPs, tank berming, flowback to tanks, GW baseline sampling, notification, and cuttings low moisture content COAs.	7/8/2013 3:40:49 PM
DOW	The BMPs identified in the Form 2A application adequately address wildlife concerns.  Approved:Jim Komatinsky July 1, 2013	7/1/2013 11:25:19 AM
Permit	Pending.Changed Desc. from Reference Area Pictures to Location Pictures w/consent of Operator.	7/1/2013 10:51:40 AM
Permit	Passed completeness	6/28/2013 11:04:16 AM
Permit	Returned to draft: Multi-plan must show the correct bottom hole location as well as the surface location.	6/28/2013 9:31:40 AM

Total: 5 comment(s)

**BMP**

<b>Type</b>	<b>Comment</b>
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.
Construction	Wattles, Silt Fence, Vegetation Buffers, Slash, Topsoil Windrows (diversions & ROP's), Scheduling, Phased Construction (Not all are used all the time) Terminal Containment, Diversions, 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
Interim Reclamation	Maintenance Revegetation Monitoring BMP maintenance & monitoring Weed Management

Total: 3 comment(s)