

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:
400376890

Date Received:
02/19/2013

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:
432551
Expiration Date:
04/17/2016

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: Bonnie Lamond
 Phone: (720) 876-5156
 Fax: (720) 876-6177
 email: bonnie.lamond@encana.com

4. Location Identification:

Name: Hagen Federal Number: 22-8A (PC22)
 County: GARFIELD
 QuarterQuarter: NENW Section: 22 Township: 7S Range: 95W Meridian: 6 Ground Elevation: 6529

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: 678 feet FNL, from North or South section line, and 1831 feet FWL, from East or West section line.
 Latitude: 39.428400 Longitude: -107.986289 PDOP Reading: 0.0 Date of Measurement: 01/21/2013
 Instrument Operator's Name: Ted T. Taggart

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

Special Purpose Pits: <input type="text" value="0"/>	Drilling Pits: <input type="text" value="0"/>	Wells: <input type="text" value="20"/>	Production Pits: <input type="text" value="0"/>	Dehydrator Units: <input type="text" value="0"/>
Condensate Tanks: <input type="text" value="11"/>	Water Tanks: <input type="text" value="0"/>	Separators: <input type="text" value="20"/>	Electric Motors: <input type="text" value="0"/>	Multi-Well Pits: <input type="text" value="0"/>
Gas or Diesel Motors: <input type="text" value="0"/>	Cavity Pumps: <input type="text" value="0"/>	LACT Unit: <input type="text" value="0"/>	Pump Jacks: <input type="text" value="0"/>	Pigging Station: <input type="text" value="0"/>
Electric Generators: <input type="text" value="0"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text" value="0"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text" value="1"/>
Gas Compressors: <input type="text" value="0"/>	VOC Combustor: <input type="text" value="0"/>	Oil Tanks: <input type="text" value="0"/>	Fuel Tanks: <input type="text" value="0"/>	

Other: _____

6. Construction:

Date planned to commence construction: 05/18/2013 Size of disturbed area during construction in acres: 8.40
Estimated date that interim reclamation will begin: 05/15/2014 Size of location after interim reclamation in acres: 2.00
Estimated post-construction ground elevation: 6521 Will a closed loop system be used for drilling fluids: Yes No
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: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ 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: 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: 1200, public road: 3400, above ground utility: 1880,
railroad: 17000, property line: 555

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 be 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: Villa Grove-Zoltay loams, 15 to 30 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: 06/17/2011
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: 660, water well: 2350, depth to ground water: 173
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 for this location will be adjacent to the north side of the pad. Wells on the PC22 pad will access both federal and fee minerals.

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

Signed: _____ Date: 02/19/2013 Email: bonnie.lamond@encana.com

Print Name: Bonnie Lamond Title: Permitting Technician

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: 4/18/2013

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.

PROJECT RULISON-RELATED COAs:

Email notification shall be sent to COGCC field inspection staff at the time of spud notice to identify the wells location with respect to both the sector and tier as defined by the Rulison Sampling and Analysis Plan (RSAP). Submit Form 42: Other as specified by permit condition.

Comply with all DOE Office of Legacy Management requests for sampling and analysis of natural gas and other materials associated with drilling, completion, and production.

Operator shall comply with all provisions of the most recent COGCC approved revision of the Rulison Sampling and Analysis Plan (RSAP).

SITE SPECIFIC 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).

The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.

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

Operator must ensure 110 percent secondary containment for any volume of fluids (excluding freshwater) 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 location is in an area of moderate to high run-on / run-off potential; therefore the pad and access road shall be constructed to prevent any stormwater run-on and/or stormwater run-off. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

The moisture content of any drill cuttings in a cuttings trench, container, or bermed/covered pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel 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.

A closed loop mud system shall be utilized to ensure containment of all materials that have been in contact with downhole strata and fluids. All cuttings will be kept on the pad in an area where they can be isolated from the ground surface, precipitation, and precipitation/snow melt run-on/run-off. Contour features, french drains and other stormwater BMPs as necessary shall be employed to ensure site integrity.

No individual operator shall utilize more than one rig within one mile of the Project Rulison blast site at any given time and no individual operator shall utilize more than two rigs within a three mile radius of the site at any given time. The total number of rigs allowed by all operators within three miles of the site shall be limited to five at any given time.

Operator will conduct regular inspections of equipment for leaks and equipment problems with appropriate documentation retained in the operator's office. All equipment deficiencies shall be corrected. Monitoring should end approximately 30 days after well completion and/or after production has been stabilized; however, timely inspections should continue during the production phase.

Operator will use adequately sized containment devices for all chemicals and/or hazardous materials stored or used on location.

Strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

Attachment Check List

Att Doc Num	Name
400376890	FORM 2A APPROVED
400381118	ACCESS ROAD MAP
400381120	CONST. LAYOUT DRAWINGS
400381121	LOCATION DRAWING
400381122	LOCATION PICTURES
400381123	MULTI-WELL PLAN
400381125	NRCS MAP UNIT DESC
400382720	HYDROLOGY MAP
400406202	SURFACE AGRMT/SURETY
400406445	FORM 2A SUBMITTED

Total Attach: 10 Files

General Comments

User Group	Comment	Comment Date
Permit	The surface owner is the mineral owner, and the Operator has an oil/gas lease with owner	4/18/2013 2:25:59 PM
OGLA	Initiated/Completed OGLA Form 2A review on 04-04-13 by Dave Kubeczko; placed fluid containment, spill/release BMPs, moisture content cuttings, lined cuttings trench, Project Rulison SAP, closed loop, flowback to tanks, sediment control access road/pad, tank berming, DOE notification/sampling, hillside monitoring, dust control, secondary containment, equipment inspection COAs on the Form 2A; changed to sensitive area due to close SW (444'); passed by CPW on 02-22-13 with operator submitted wildlife BMPs acceptable; passed OGLA Form 2A review on 04-12-13 by Dave Kubeczko; fluid containment, spill/release BMPs, moisture content cuttings, lined cuttings trench, Project Rulison SAP, closed loop, flowback to tanks, sediment control access road/pad, tank berming, DOE notification/sampling, hillside monitoring, dust control, secondary containment, equipment inspection COAs.	4/4/2013 9:34:11 AM
LGD	Passed DB	3/11/2013 10:55:08 AM
DOW	The BMPs included in the Form 2A application adequately address wildlife concerns. Approved: Jim Komatinsky 2-22-2013	2/22/2013 3:54:28 PM
Permit	This form has passed completeness.	2/20/2013 1:53:43 PM
Permit	RTD: Surface location in the Sensitive Wildlife Habitat area. Surface is Fee and Minerals are Federal. No Federal minerals noted on location. If not Federal then: Surface owner is mineral should be checked, Committed to an O&G lease would be checked and is the executer of O&G lease would be checked.	2/20/2013 11:48:41 AM
Permit	RTD: Surface location in the Sensitive Wildlife Habitat area. Surface is Fee and Minerals are Federal. No Federal minerals noted on location. If not Federal then: Surface owner is mineral should be checked, Committed to an O&G lease would be checked and is the executer of O&G lease would be checked.	2/20/2013 8:54:42 AM

Total: 7 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Interim Reclamation	Maintenance Revegetation Monitoring BMP maintenance & monitoring Weed Management
Pre-Construction	Wattles, Silt Fence, Vegetation Buffers, Slash, Topsoil Windrows (diversions & ROP's), Scheduling, Phased Construction
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
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.

Total: 4 comment(s)