

FORM
2A

Rev
08/13

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:

400614799

Date Received:

07/16/2014

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location 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. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

439141

Expiration Date:

10/02/2017

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

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.

Operator

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

Contact Information

Name: Alexis Kubat
Phone: (720) 876-3074
Fax: ()
email: Alexis.Kubat@encana.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20100017 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: CBU Number: O15 1100

County: RIO BLANCO

Quarter: SESE Section: 15 Township: 1S Range: 100W Meridian: 6 Ground Elevation: 8351

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 253 feet FSL from North or South section line

1277 feet FEL from East or West section line

Latitude: 39.957144 Longitude: -108.598512

PDOP Reading: 1.6 Date of Measurement: 04/18/2014

Instrument Operator's Name: Greg Olsen

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	<u>2</u>	Oil Tanks	<u> </u>	Condensate Tanks	<u>2</u>	Water Tanks	<u>2</u>	Buried Produced Water Vaults	<u> </u>
Drilling Pits	<u> </u>	Production Pits	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits	<u> </u>	Temporary Large Volume Above Ground Tanks	<u> </u>
Pump Jacks	<u> </u>	Separators	<u>1</u>	Injection Pumps	<u> </u>	Cavity Pumps	<u> </u>		
Gas or Diesel Motors	<u> </u>	Electric Motors	<u> </u>	Electric Generators	<u> </u>	Fuel Tanks	<u> </u>	Gas Compressors	<u> </u>
Dehydrator Units	<u>2</u>	Vapor Recovery Unit	<u> </u>	VOC Combustor	<u>1</u>	Flare	<u> </u>	LACT Unit	<u> </u>
								Pigging Station	<u> </u>

OTHER FACILITIES

Other Facility Type

Number

<u>Other Facility Type</u>	<u>Number</u>

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Two Pipelines, up to 12" in diameter each leaving the location to the tie in point (1 produced water and 1 gas). Flowlines from the wellheads to the separator will be 2" steel. The produced water flowline from the separator to the water tanks will be 2" steel. The condensate flowline from the separator to the water tanks will be 2" steel. The gas flowline from the separator to the take away pipeline will be 6" to 12" steel. All flowline disturbance will be within pad boundaries. All flowlines will be buried 4' deep.

CONSTRUCTION

Date planned to commence construction: 08/01/2014 Size of disturbed area during construction in acres: 6.86

Estimated date that interim reclamation will begin: 04/01/2015 Size of location after interim reclamation in acres: 1.28

Estimated post-construction ground elevation: 8341

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: ONSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: ONSITE Cuttings Disposal Method: Cuttings trench

Other Disposal Description:

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Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: BLM- WRFO

Phone: (970) 878-3800

Address: 220 East Market Street

Fax: _____

Address: _____

Email: wrfomail@blm.gov

City: Meeker State: CO Zip: 81641

Surface Owner: Fee State Federal Indian

Check all that apply. The Surface Owner: is the mineral owner

is committed to an oil and Gas Lease

has signed the Oil and Gas Lease

is the applicant

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation _____

CURRENT AND FUTURE LAND USE

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

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

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 293 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 253 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____
Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SOIL

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.org/> 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: 87 Starman- Vadamore complex, 5 to 40 percent sloped

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

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: 05/07/2014

List individual species: Elk sedge and westerns wheatgrass.

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): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 2767 Feet

water well: 5280 Feet

Estimated depth to ground water at Oil and Gas Location 280 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest water wells with available data are BLM monitoring wells located approximately 20631' to the southeast; Permit No. 232734 is screened from 280' to 355' below ground surface (bgs) and Permit No. 232735 is screened from 404' to 491' bgs; depth to first water bearing zone is estimated to be no shallower than 280' bgs.

Is the location in a riparian area: No Yes

Was an Army Corps of Engineers Section 404 permit filed No Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No
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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

- Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

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

Signed: _____ Date: 07/16/2014 Email: Alexis.Kubat@encana.com

Print Name: Alexis Kubat 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: 10/3/2014

Conditions Of Approval

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.

<u>COA Type</u>	<u>Description</u>
	Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network.
	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, if drill cuttings are to remain/disposed of 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 pit 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 constructed to be sufficiently impervious to contain any spilled or released material.
	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); 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.
	Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, pipeline testing, start of hydraulic stimulation operations, and start of flowback operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Best Management Practices

No	BMP/COA Type	Description
1	General Housekeeping	<ul style="list-style-type: none"> • Prohibit Encana employees and contractors from carrying projectile weapons on Encana property, except during company organized events.
2	Wildlife	<ul style="list-style-type: none"> • Install trench plugs (sloped to allow wildlife or livestock to exit the trench should they enter) at known wildlife or livestock trails to allow safe crossing on long spans of open trench, where appropriate, economically and technically feasible. • Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and aquatic resources. • Perform pre-disturbance surveys when the on-site inspection and commencement of disturbance occur in different field seasons using the most recent data sets for wildlife and aquatic resources. • Utilize the Encana Wildlife Resources Matrix to identify and document (where appropriate) potential impacts or concerns during the project planning phase for proposed drilling operations and construction of roads, pads and pipelines. • Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.
3	Dust control	<ul style="list-style-type: none"> • Strategically apply fugitive dust control measures, including enforcing established speed limits on Encana private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.
4	Construction	<ul style="list-style-type: none"> • Use solar panels as an alternative energy source for on-location production equipment, where appropriate, economically and technically feasible. • Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible. • Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible. • Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel.

Total: 4 comment(s)

Attachment Check List

Att Doc Num	Name
2107102	CORRESPONDENCE
400614799	FORM 2A SUBMITTED
400645951	LOCATION DRAWING
400645952	LOCATION PICTURES
400645953	CONST. LAYOUT DRAWINGS
400645954	ACCESS ROAD MAP
400645955	REFERENCE AREA MAP
400645956	MULTI-WELL PLAN
400645957	HYDROLOGY MAP
400645958	NRCS MAP UNIT DESC

Total Attach: 10 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Operator provided information for a revised the depth to groundwater, which has been added by COGCC to the Form 2A on 10-01-14. Corrected depth to groundwater is 280' bgs; location is not in a sensitive area.	10/1/2014 11:13:30 AM
Permit	Final review complete.	9/30/2014 4:31:19 PM
DOW	CPW attended an onsite of this location on 5/7/2014. Wildlife concerns identified at this time are being adequately addressed through the BLMs required lease stipulations and COAs along with the operators BMPs provided on the submitted Form 2A. By: Taylor Elm, 7/21/2014, 4:18	7/21/2014 4:20:07 PM
OGLA	Initiated/Completed OGLA Form 2A review on 07-20-14 by Dave Kubeczko, requested acknowledgement of notification, fluid containment, spill/release BMPs, flowback to tanks, cuttings low moisture content, and pipeline testing COAs from operator on 07-20-14; received acknowledgement of COAs from operator on 07-21-14; passed by CPW on 07-21-14 with operator submitted BMPs and BLM stipulations and COAs acceptable; passed OGLA Form 2A review on 09-15-14, and again on 10-01-14 by Dave Kubeczko; notification, fluid containment, spill/release BMPs, flowback to tanks, cuttings low moisture content, and pipeline testing COAs.	7/20/2014 7:43:57 PM
Permit	Passed completeness. Submitter's maiden name is Bidgood and is a designated agent.	7/17/2014 1:25:05 PM

Total: 5 comment(s)