

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:

400607793

Date Received:

05/29/2014

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 335690

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:

**335690**

Expiration Date:

**07/30/2017**

☒ 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: Kelly Hamden  
Phone: (720) 876-5185  
Fax: (720) 876-6185  
email: Kelly.Hamden@encana.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20100017 ☐ Gas Facility Surety ID: \_\_\_\_\_  
☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: UWF Number: K04 596  
County: GARFIELD  
QuarterQuarter: NESW Section: 4 Township: 5S Range: 96W Meridian: 6 Ground Elevation: 8199  
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: 2241 feet FSL from North or South section line  
2402 feet FWL from East or West section line  
Latitude: 39.642964 Longitude: -108.175014  
PDOP Reading: 1.2 Date of Measurement: 04/11/2012  
Instrument Operator's Name: Brian Baker

## 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>36</u>	Oil Tanks	<u>      </u>	Condensate Tanks	<u>      </u>	Water Tanks	<u>      </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>      </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>      </u>	Vapor Recovery Unit	<u>      </u>	VOC Combustor	<u>      </u>	Flare	<u>      </u>	LACT Unit	<u>      </u>
								Pigging Station	<u>      </u>

## OTHER FACILITIES

### Other Facility Type

### Number

Meter houses	14
Water pipeline	1
Gas pipeline	2

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

Potential gas/water pipelines to be used at this location:

HP Pipeline 6", 1.5 miles- Gas to Sales  
HP Frac Water line 6", 1.0 miles- Remote Fracking  
Produced Water Supply 12", .25 miles (Shared with H04 pad)- Supply for Frac  
Fresh Waterline 6", 1.5 miles- Drilling  
Gas Lift pipeline 6", 300 LF- Artificial Lift  
PWC 8", 1 mile- Produced Water  
Oil Pipeline 4", 300 LF- Liquids

## CONSTRUCTION

Date planned to commence construction: 08/01/2014 Size of disturbed area during construction in acres: 11.10  
Estimated date that interim reclamation will begin: 06/01/2015 Size of location after interim reclamation in acres: 1.90  
Estimated post-construction ground elevation: 8199

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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: Other

Cutting Disposal: ONSITE

Cuttings Disposal Method: Other

Other Disposal Description:

Recycle and Bury

Beneficial reuse or land application plan submitted?           

Reuse Facility ID:                      or Document Number:                     

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

## SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Encana

Phone: 303-623-2300

Address: 370 17th St. Suite 1700

Fax:                     

Address:                     

Email:                     

City: Denver State: CO Zip: 80202

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: applicant is owner

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: 2615 Feet  
Above Ground Utility: 5280 Feet  
Railroad: 5280 Feet  
Property Line: 2996 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 be 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: 56. Parachute-Irigul-Rhone association, 25 to 50 percent slopes.

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: 04/22/2012

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): \_\_\_\_\_

## WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 991 Feet

water well: 8921 Feet

Estimated depth to ground water at Oil and Gas Location 40 Feet

Basis for depth to groundwater and sensitive area determination:

The closest water well per CO. Division of Water Resources is water permit #123567, with an elevation depth of 511 and Static Water Level of 67.

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

Form 2A Amendment: Please note Encana is the surface and mineral owner at this location. Encana requests an increase from initial surface disturbance area from 6.73 acres to 11.1 acres. The interim reclamation area will slightly increase from 1.72 acres to 1.9 acres. The revised location drawings and construction lay out plans have been attached for reference. This pad is included as part of the WMP. The K04 596 Pad will be reclaimed to the adjacent area to the Northwest.

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

Signed: \_\_\_\_\_ Date: 05/29/2014 Email: Kelly.Hamden@encana.com

Print Name: Kelly Hamden 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: 7/31/2014

### **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.

#### **COA Type**

#### **Description**

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### **Best Management Practices**

#### **No BMP/COA Type**

#### **Description**

1	General Housekeeping	<ul style="list-style-type: none"><li>• Prohibit Encana employees and contractors from carrying projectile weapons on Encana property, except during company organized events.</li><li>• Prohibit pets on Encana property.</li></ul>
2	Wildlife	<ul style="list-style-type: none"><li>• 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.</li><li>• Perform biological surveys (on-site) for each new development, using the most recent data sets for wildlife and aquatic resources.</li><li>• 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.</li><li>• 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.</li><li>• Use enclosed, locking garbage receptacles or implement a strict daily trash removal regime on each temporary or permanent work location.</li></ul>
3	Dust control	<ul style="list-style-type: none"><li>• 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.</li></ul>
4	Construction	<ul style="list-style-type: none"><li>• Use solar panels as an alternative energy source for on-location production equipment, where appropriate, economically and technically feasible.</li><li>• Use multiple gathering lines placed in a single trench to minimize disturbance and construction, where appropriate, economically and technically feasible.</li><li>• Install pipeline crossings at right angles to the drainages, wetlands, and perennial water bodies, where appropriate, economically and technically feasible.</li><li>• Maintain a minimum of five feet of soil cover between the pipeline and the lowest point of the drainage or water body channel.</li></ul>

Total: 4 comment(s)

### Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400607793	FORM 2A SUBMITTED
400616653	CONST. LAYOUT DRAWINGS
400616654	LOCATION DRAWING

Total Attach: 3 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed. LGD passed with one comment.	7/28/2014 1:11:56 PM
OGLA	Initiated/Completed OGLA Form 2A review on 07-01-14 by Dave Kubeczko; previously submitted and approved (06-14-12) Form 2A#400278249, OGCC ID#335690; same COAs apply - fluid containment, spill/release BMPs, monitoring hillside, moisture content cuttings, lined pit/closed loop, and flowback to tanks; passed by CPW on 05-30-14 with WMP acceptable; passed OGLA Form 2A review on 07-23-14 by Dave Kubeczko; fluid containment, spill/release BMPs, monitoring hillside, moisture content cuttings, lined pit/closed loop, and flowback to tanks COAs.	7/1/2014 6:56:03 PM

OGLA	<p>PREVIOUS FORM 2A#400278249 COAs:</p> <p>Operator must ensure 110 percent 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.</p> <p>The nearby hillside and and fill-material bermed portions (if present) of the pit must be monitored for any day-lighting of fluids throughout pit operations.</p> <p>Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines or permanent buried pipelines.</p> <p>There is the potential for shallow groundwater; therefore either a lined drilling pit or closed loop system must be implemented.</p> <p>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.</p> <p>Notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us), the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us), and the COGCC Field Inspector for Garfield County (Mike Longworth; email mike.longworth@state.co.us) 48 hours prior to start of pad construction, pit liner installation (if applicable), 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).</p> <p>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 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 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.</p>	7/1/2014 6:56:02 PM
LGD	<p>Note the location has two, adjacent disturbed areas instead of the more commonly observed single disturbed area.</p> <p>Pass, KHW</p>	6/13/2014 1:48:20 PM



DOW	The Form 2A application indicates that the Encana N Wildlife Mitigation Plan and Encana Wildlife Resources Matrix BMPs will be applicable to this location. Colorado Parks and Wildlife concurs that the BMPs and conditions of approval identified in the Encana N Wildlife Mitigation Plan and Form 2A application adequately address wildlife concerns.  Approved: Jim Komatinsky 5-30-2014	5/30/2014 2:08:42 PM
Permit	Passed completeness.	5/30/2014 9:30:08 AM

Total: 6 comment(s)