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

Oil and Gas Location Assessment

Document Number: 400352543

Date Received: 12/06/2012

Location ID: **431328**

Expiration Date: **01/10/2016**

☒ 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.

☒ 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: JENNIFER LIND

Phone: (720) 876-5890

Fax: (720) 876-6890

email: JENNIFER.LIND@ENCANA.COM

4. Location Identification:

Name: SG Number: N30 495

County: GARFIELD

QuarterQuarter: NESW Section: 30 Township: 4S Range: 95W Meridian: 6 Ground Elevation: 8308

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: 1477 feet FSL , from North or South section line, and 2126 feet FWL , from East or West section line.

Latitude: 39.670128 Longitude: -108.100122 PDOP Reading: 1.0 Date of Measurement: 12/02/2011

Instrument Operator's Name: ROBERT KAY

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

Special Purpose Pits:		Drilling Pits:		Wells:	8	Production Pits:		Dehydrator Units:	
Condensate Tanks:		Water Tanks:		Separators:		Electric Motors:		Multi-Well Pits:	
Gas or Diesel Motors:		Cavity Pumps:		LACT Unit:		Pump Jacks:		Pigging Station:	
Electric Generators:	1	Gas Pipeline:	1	Oil Pipeline		Water Pipeline:	1	Flare:	
Gas Compressors:		VOC Combustor:		Oil Tanks:		Fuel Tanks:			

Other: Pipelines will be located along access roads.

6. Construction:

Date planned to commence construction: 02/01/2013 Size of disturbed area during construction in acres: 5.49

Estimated date that interim reclamation will begin: 04/01/2014 Size of location after interim reclamation in acres: 3.37

Estimated post-construction ground elevation: 8308 Will a closed loop system be used for drilling fluids: Yes [X]

Will salt sections be encountered during drilling: Yes [ ] No [X] Is H2S anticipated? Yes [ ] No [X]

Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes [ ] No [X]

Mud disposal: Offsite [ ] Onsite [X] Method: Land Farming [ ] Land Spreading [ ] Disposal Facility [ ]

Other: RECYCLE AND BURY

7. Surface Owner:

Name: _____ Phone: _____

Address: _____ Fax: _____

Address: _____ Email: _____

City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: _____

Surface Owner: [X] Fee [ ] State [ ] Federal [ ] Indian

Mineral Owner: [ ] Fee [ ] State [X] 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 [X] the applicant

The right to construct the location is granted by: [ ] oil and gas lease [ ] Surface Use Agreement [ ] Right of Way [X] 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 Mgnt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes [ ] No [X]

Distance, in feet, to nearest building: 11699 , public road: 262 , above ground utilit: 5343

, railroad: 78144 , property line: 4641

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

Crop Land: [ ] Irrigated [ ] Dry land [ ] Improved Pasture [ ] Hay Meadow [ ] CRP

Non-Crop Land: [X] 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: [X] 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: 53 - PARACHUTE-RHONE LOAMS, 5 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: 12/02/2011

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: 1260 , water well: 9198 , depth to ground water: 80

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:

THIS PAD WILL CONTAIN 8 WELLS TO BE USED AS WATER INJECTION WELLS. THE POINT OF REFERENCE FOR THE PAD IS THE WD01D-30 N30 495 WELL LOCATION. THE AREA DIRECTLY NORTHEAST OF THE PAD WILL SERVE AS THE REFERENCE AREA FOR RECLAMATION. REFERENCE AREA PHOTOS WILL BE COMPLETED DURING GROWING SEASON. Pipelines will follow the access roads.

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

Signed: Date: 12/06/2012 Email: JENNIFER.LIND@ENCANA.COM

Print Name: JENNIFER LIND 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: Matthew Lee **Director of COGCC** Date: 1/11/2013

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.

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).

Operator must submit an as-built drawing (plan view and cross-sections) of the SWD injection well pad and associated equipment within 30 calendar days of construction.

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

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations (as described on the BMPs tab and 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 freshwater generated 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.

Operator will use qualified containment devices for all appropriate chemicals/hazardous materials used onsite during the operation of the injection well.

All tanks and aboveground vessels containing fluids must have secondary containment structures. All secondary containment structures/areas must be lined. Operator must ensure 150 percent secondary containment for the largest structure containing fluids within each bermed area the facility during operations. The construction and lining of the secondary containment structures/areas shall be supervised by a professional engineer or their agent.

Operator shall equip and maintain on all tanks an electronic level monitoring device that will immediately shut in pipelines from wells.

Operator shall install a steel containment ring around tank batteries to provide secondary containment and install a synthetic liner that underlies the entire battery and is keyed into the top of the containment ring.

Approval of this Form 2A does not authorize operator the right to inject. Authorization to inject into the selected Formatuion(s) requires approval of both the Form 31 and the Form 33.

Befiore hydraulic stimulation of the well, operator shall collect a groundwater sample from the Maroon Formation and analyze for total dissolved solids (TDS); submit laboratory analytical results to denise.onyskiw@state.co.us and arthur.koelspell@state.co.us.

Attachment Check List

Att Doc Num	Name
1533913	LOCATION DRAWING
2106488	CORRESPONDENCE
400352543	FORM 2A SUBMITTED
400354774	HYDROLOGY MAP
400354781	MULTI-WELL PLAN
400357622	NRCS MAP UNIT DESC
400358427	ACCESS ROAD MAP
400358429	CONST. LAYOUT DRAWINGS
400358437	LOCATION PICTURES

Total Attach: 9 Files

General Comments

User Group	Comment	Comment Date
Permit	No LGD or public comments. Final Review--passed.	1/10/2013 3:23:43 PM
Permit	Attached revised loc. drawing w/ revised distance to road.	1/9/2013 8:06:30 AM
OGLA	Initiated/Completed OGLA Form 2A review on 01-08-13 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, tank berming, flowback to tanks, as builts, pipeline maps, and cuttings low moisture content COAs from operator on 01-08-13; received acknowledgement of COAs from operator on 01-10-13; changed distance to SW to 1260'; changed distance to public road to 262' per Construction Layout Drawings attachment and revised Location Drawing attachment; passed by CPW on 12-17-12 with BMPs and WMP acceptable; passed OGLA Form 2A review on 01-10-13 by Dave Kubeczko; fluid containment, spill/release BMPs, tank berming, flowback to tanks, as builts, pipeline maps, and cuttings low moisture content COAs.	1/8/2013 2:28:25 PM
LGD	Passed DB	12/27/2012 10:32:09 AM
DOW	This well pad is located within the boundary of the approved North Parachute Ranch-CPW Wildlife Mitigatin Plan.The BMPs were developed and agreed upon in the consultation and development of the Wildlife Mitigation Plan by EnCana and CPW. CPW affirms that the BMPs and conditions of approval of the Wildlife Mitigation Plan suffice to address wildlife mitigation concerns. Approved Jim Komatinsky 12-17-2012	12/17/2012 2:19:04 PM
Permit	Operator made corrections.	12/14/2012 10:59:02 AM
Permit	Return to draft: 1. field observation date under plant community is incomplete, 2. complete pad name required on all attachments (SG N30 495).	12/12/2012 10:34:47 PM

Total: 7 comment(s)

BMP

Type	Comment
Wildlife	• 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.
Site Specific	• Use solar panels as an alternative energy source for on-location production equipment, 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. • Prohibit Encana employees and contractors from carrying projectile weapons on Encana property, except during company organized events. • Prohibit pets on Encana property. • 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.
Construction	• 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.

Total: 3 comment(s)