

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:

400675568

(SUBMITTED)

Date Received:

11/17/2014

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:

Expiration Date:

☒ 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: Toby Sachen

Phone: (720) 876-5845

Fax: (720) 876-6584

email: toby.sachen@encana.com

RECLAMATION FINANCIAL ASSURANCE

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

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Sullivan Number: 26H-P268

County: WELD

Quarter: SESE Section: 26 Township: 2N Range: 68W Meridian: 6 Ground Elevation: 4964

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: 566 feet FSL from North or South section line

519 feet FEL from East or West section line

Latitude: 40.103839 Longitude: -104.962825

PDOP Reading: 1.5 Date of Measurement: 07/10/2014

Instrument Operator's Name: Ryan Christi

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 #

Well Site is served by Production Facilities

400702956

FACILITIES

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

Wells	12	Oil Tanks*	Condensate Tanks*	Water Tanks*	Buried Produced Water Vaults*
Drilling Pits		Production Pits*	Special Purpose Pits	Multi-Well Pits*	Modular Large Volume Tanks
Pump Jacks		Separators*	Injection Pumps*	Cavity Pumps*	Gas Compressors*
Gas or Diesel Motors*		Electric Motors	Electric Generators*	Fuel Tanks*	LACT Unit*
Dehydrator Units*		Vapor Recovery Unit*	VOC Combustor*	Flare*	Pigging Station*

OTHER FACILITIES*

Other Facility Type

Number

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

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

Oil and water flowlines will run north from the well pad to the Sullivan Facilities pad.
Location of gas flowlines will be determined by KMG at a later date.

CONSTRUCTION

Date planned to commence construction: 08/01/2015

Size of disturbed area during construction in acres: 8.00

Estimated date that interim reclamation will begin: 10/01/2016

Size of location after interim reclamation in acres: 0.50

Estimated post-construction ground elevation: 4965

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: OFFSITE

Drilling Fluids Disposal Method: Land application

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

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: Shadetree Eagle LLC.

Phone:

Address: 11829 Ridge Parkway #626

Fax: _____

Address: _____

Email: _____

City: Broomfield State: CO Zip: 80021

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: Surface Use Agreement

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 Commercial

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 Commercial

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

CULTURAL DISTANCE INFORMATION

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	575 Feet	Feet
Building Unit:	618 Feet	Feet
High Occupancy Building Unit:	4000 Feet	Feet
Designated Outside Activity Area:	5280 Feet	Feet
Public Road:	440 Feet	Feet
Above Ground Utility:	390 Feet	Feet
Railroad:	5280 Feet	Feet
Property Line:	263 Feet	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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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: 08/30/2014

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (onll or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

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: 40 - Nunn loam, 1 to 3 percent slopes

NRCS Map Unit Name: 47 - Olney fine sandy loam 1 to 3 percent slopes

NRCS Map Unit Name: 52 - Otero sandy loam 3 to 5 percent slopes

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: 08/13/2014

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): alfalfa, bindweed, perennial sow thistle, kochia, corn

WATER RESOURCES

Is this a sensitive area: ☐ No ☒ Yes

Distance to nearest

downgradient surface water feature: 1586 Feet

water well: 544 Feet

Estimated depth to ground water at Oil and Gas Location 100 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive area based on nearest well within 1/8 mile.
Depth to groundwater based on water well, permit #61085, with a static water level of 100'.

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 zone: No

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 318A

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 Attached are drawings to help explain the land use. This land is subdivided and being developed now. A facility for the Town of Frederick's in the Western part of the business park and the recently purchased northern lot by Black Diamond will help also. Aerials don't show current land use as it has changed drastically over the past 6 months. This is no longer "crop" land as it is currently being developed.

Merideth #1 well is not part of the surface use agreement Encana has with the surface owner. KPK has a separate agreement with the surface owners as it pertains to surface use. This well is not an inclusion in Encana's Oil & Gas operations area as it was agreed to with the surface owner.

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

Signed: _____ Date: 11/17/2014 Email: toby.sachen@encana.com

Print Name: Toby Sachen Title: Permitting 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: _____

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.

Best Management Practices

No BMP/COA Type

Description

1	Traffic control	Under Rule 604.c.(2).D, if required by the local government, a traffic plan shall be coordinated with the local jurisdiction prior to commencement of move in and rig up. Any subsequent modification to the traffic plan must be coordinated with the local jurisdiction.
2	General Housekeeping	All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner.
3	General Housekeeping	The well site will be cleared of all non-essential equipment, trash and debris after ninety days of a well P&A.
4	General Housekeeping	Encana will identify plugged and abandoned wellbores according to Rule 319.a.(5). including the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). Encana will also inscribe or imbed the well number and date of plugging upon the permanent monument.
5	Construction	The pad will be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping.
6	Construction	Subject pad will have all weather access roads to allow for operator and emergency response.

7	Construction	Encana will install fencing to restrict access to wellheads and equipment. (If in a town, "Fencing style will be installed as required by the town".)
8	Construction	At the time of construction, all leasehold roads will be constructed to accommodate local emergency vehicle access requirements, and will be maintained in a reasonable condition.
9	Noise mitigation	Encana will perform a baseline noise survey prior to any operational activity measuring dBA at a distance 350 feet from the noise source (unless there is an occupied structure closer than that – then measurement will be taken 25 feet from the structure). If low frequency noise is a concern, measurement of dBC will be taken 25 feet from the occupied structure towards the noise source. As necessary, based on the survey, Encana will install temporary sound walls to minimize noise and light impacts during drilling and completions and will install permanent noise mitigation at the facility location as necessary to meet all COGCC regulations.
10	Noise mitigation	The subject location will be constructed to allow potential future noise mitigation installation without disturbance.
11	Drilling/Completion Operations	Guy line anchors in the DJ Basin are not installed. Encana will use an engineered base beam that we guy wire anchor the derricks to.
12	Drilling/Completion Operations	Encana will utilize a closed-loop system for drilling operations at this location.
13	Drilling/Completion Operations	Encana will not utilize pits.
14	Drilling/Completion Operations	Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections will be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing will be conducted and the documented results will be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing will be conducted on a daily basis when practicable.
15	Drilling/Completion Operations	Adequate blowout prevention equipment will be used on all well servicing operations.
16	Drilling/Completion Operations	Backup stabbing valves will be used on well servicing operations during reverse circulation. Valves will be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.

Total: 16 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400675568	FORM 2A SUBMITTED
400686781	NRCS MAP UNIT DESC
400686782	NRCS MAP UNIT DESC
400686783	NRCS MAP UNIT DESC
400698004	ACCESS ROAD MAP
400698008	LOCATION DRAWING
400698010	MULTI-WELL PLAN
400699976	WASTE MANAGEMENT PLAN
400703007	LOCATION PICTURES
400708335	HYDROLOGY MAP
400713395	OTHER
400739998	SURFACE AGRMT/SURETY
400741515	OTHER
400741517	OTHER

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Returned to Draft: For issues described by OGLA	11/25/2014 7:53:44 AM
OGLA	Issues identified during Buffer Zone completeness review: MLVT description in operator comments is incorrect No 303.b.(3)C pipeline description Current listed land use on form Subdivided Commercial - not consistent with Location Drawing or Photos Please attach SUA The planned disturbed area overlaps the existing Meredith #1 Well. Please describe plans for the Well and if the existing Well will be included into the proposed Oil and Gas Location.	11/24/2014 1:13:49 PM
Permit	Within buffer zone, sent to OGLA for further review.	11/18/2014 7:28:59 AM

Total: 3 comment(s)