

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:

400581710

Date Received:

04/02/2014

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:

437015

Expiration Date:

05/02/2017

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: 10439
Name: CARRIZO NIOBRARA LLC
Address: 500 DALLAS STREET #2300
City: HOUSTON State: TX Zip: 77002

Contact Information

Name: Cynthia Pinel
Phone: (713) 358-6210
Fax: ()
email: cynthia.pinel@crzo.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120105 Gas Facility Surety ID: _____
 Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Hemberger Number: 7-26-8-60 PAD

County: WELD

Quarter: SWSE Section: 26 Township: 8N Range: 60W Meridian: 6 Ground Elevation: 4871

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: 391 feet FSL from North or South section line

2438 feet FEL from East or West section line

Latitude: 40.627190 Longitude: -104.058210

PDOP Reading: 1.9 Date of Measurement: 03/04/2014

Instrument Operator's Name: MARC WOODARD

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>4</u>	Oil Tanks	<u>12</u>	Condensate Tanks	<u> </u>	Water Tanks	<u>4</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>4</u>	Separators	<u>6</u>	Injection Pumps	<u> </u>	Cavity Pumps	<u> </u>		
Gas or Diesel Motors	<u>4</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>1</u>	Flare	<u>1</u>	LACT Unit	<u> </u>
								Pigging Station	<u> </u>

OTHER FACILITIES

Other Facility Type

Number

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

2 3/8" 8 round pipe. Approximately 300' used for flowlines (oil, water, gas) from the wellhead to the facilities. Pipeline from the facilities to the sales meter will remain unresolved until gas potential of the well(s) is/are determined. We use Sch 80 pipe that is welded together for all flowlines and generally has a capacity of .7 barrels of fluid per 100 feet with the average being 150 – 200' of flowline from the wellhead to the separators.

CONSTRUCTION

Date planned to commence construction: 07/01/2014 Size of disturbed area during construction in acres: 6.20
Estimated date that interim reclamation will begin: 12/01/2014 Size of location after interim reclamation in acres: 2.00
Estimated post-construction ground elevation: 4868

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: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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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: Clyde & Janie Hembeger

Phone: 970-663-2970

Address: 2490 N County Road 3

Fax: _____

Address: _____

Email: _____

City: Lovelland State: CO Zip: 80538

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 03/18/2014

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: 2745 Feet
Above Ground Utility: 5280 Feet
Railroad: 5280 Feet
Property Line: 54 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: NRCS 40_Nunn Loam, 0 to 6 percent slopes
NRCS Map Unit Name: NRCS 10_Avar-Manzanola complex, 0 to 3 percent slopes
NRCS Map Unit Name: NRCS 45_Olney Fine Sandy Loam, 6 to 9 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: 03/04/2014
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): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 520 Feet

water well: 4460 Feet

Estimated depth to ground water at Oil and Gas Location 63 Feet

Basis for depth to groundwater and sensitive area determination:

Colorado Division of Water Resources and study done by our Surveyor.

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: 04/02/2014 Email: cynthia.pinel@crzo.net

Print Name: Cynthia Pinel Title: Regulatory Comp. 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: 5/3/2014

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>

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Storm Water/Erosion Control	Operator has designed the well pad with insloping and a storm water control ditch to prevent storm water run-on/run-off and the release of fluids from the location. See attached Construction Layout Drawing.
2	Material Handling and Spill Prevention	Operator will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completion. Operator will implement best management practices to contain any unintentional release of fluids. Operator shall not allow any fluids to flow back to the Fresh Water Storage Pit/Pond.
3	Construction	The construction location will be fenced.
4	Drilling/Completion Operations	Operator will implement interim reclamation measures immediately after construction of the location to stabilize cut and fill slopes, stabilize the topsoil and spoil stockpiles, establish desirable vegetation and control weeds on the location. An Open Hole Resistivity log will be provided for one well on this pad, preferably the number 8 well.

Total: 4 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668288	NRCS MAP UNIT DESC
1668289	CORRESPONDENCE
1668290	CORRESPONDENCE
2157641	SURFACE AGRMT/SURETY
400581710	FORM 2A SUBMITTED
400581781	NRCS MAP UNIT DESC
400581782	NRCS MAP UNIT DESC
400581788	LOCATION PICTURES
400581791	REFERENCE AREA PICTURES
400585128	LOCATION DRAWING
400585129	CONST. LAYOUT DRAWINGS
400585130	HYDROLOGY MAP
400585132	ACCESS ROAD MAP
400585133	REFERENCE AREA MAP
400585136	MULTI-WELL PLAN

Total Attach: 15 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comments. Final Review--passed.	5/1/2014 9:04:59 AM
OGLA	No Public Comments. OGLA task passed.	5/1/2014 8:29:47 AM
OGLA	IN PROCESS - Operator agreed to removing Freshwater Pit. Operator provided distance to property line from nearest well, see Operator Comment section. Operator provided correct NRCS Map Description attachment. OGLA review complete. Waiting on Public Comment period.	4/23/2014 10:44:11 AM
Permit	Oper. submitted SUA. Changed right to construct to SUA and deleted surface bond. Distance to prop. line is from prod. facility on west side of pad.	4/17/2014 1:41:09 PM
OGLA	ON HOLD - Remove Freshwater Pit as it will not be on this location. Why is right to construct Bond when an SUA for adjacent pad with same surface owner is in effect. Provide distance to nearest property line from nearest well. Provide NRCS Soil Map Description for 40-Nunn loam NRCS soil unit. Due by 5/17/14.	4/17/2014 9:26:48 AM
Permit	Passed completeness so OGLA can review.	4/10/2014 7:23:20 AM
Permit	There is an issue with a surface disturbance that appears on Google Earth, dated 9/7/2013. This disturbance could be handled with a SUA and a water company, but needs to be reviewed by OGLA.	4/10/2014 7:19:35 AM
Permit	Returned to draft at oper.'s request.	4/3/2014 10:27:05 AM

Total: 8 comment(s)