

APPLICATION FOR PERMIT TO:

Drill

 Deepen

 Re-enter

 Recomplete and Operate

Date Received:
 10/21/2020

TYPE OF WELL OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER: _____	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Well Name: <u>BLEHM</u>	Well Number: <u>4X-HNC-10-07-67</u>
Name of Operator: <u>NICKEL ROAD OPERATING LLC</u>	COGCC Operator Number: <u>10669</u>
Address: <u>1600 STOUT STREET SUITE 1850</u>	
City: <u>DENVER</u>	State: <u>CO</u>
Zip: <u>80202</u>	
Contact Name: <u>JENNIFER LIND</u>	Phone: <u>(303)406-1117</u>
Email: <u>JENNIFER.LIND@NICKELROADOPERATING.COM</u>	Fax: ()

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20200034

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 9 Twp: 7N Rng: 67W Meridian: 6

Latitude: 40.594716 Longitude: -104.891176

Footage at Surface:	<u>452</u>	Feet	FNL/FSL	<u>707</u>	Feet	FEL/FWL
	<u>FNL</u>		<u>FNL</u>	<u>707</u>	<u>FEL</u>	<u>FEL</u>

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 5097 County: WELD

GPS Data: GPS Quality Value: 1.6 Type of GPS Quality Value: PDOP Date of Measurement: 06/23/2020

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone:	FNL/FSL	FEL/FWL	Bottom Hole:	FNL/FSL	FEL/FWL
<u>2026</u>	<u>FNL</u>	<u>460</u>	<u>2026</u>	<u>FNL</u>	<u>460</u>
<u>Sec: 9</u>	<u>Twp: 7N</u>	<u>Rng: 67W</u>	<u>Sec: 10</u>	<u>Twp: 7N</u>	<u>Rng: 67W</u>

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The local government siting permit type is: 1041WOGLA

The local government siting permit was filed on: 09/03/2020

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:
1041WOGLA20-0076 approved on 10/15/20

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) 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 by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

PLEASE SEE ATTACHED LEASE MAP.

Total Acres in Described Lease: 2 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

- Building: 2041 Feet
- Building Unit: 2041 Feet
- High Occupancy Building Unit: 5280 Feet
- Designated Outside Activity Area: 5280 Feet
- Public Road: 440 Feet
- Above Ground Utility: 410 Feet
- Railroad: 5280 Feet
- Property Line: 433 Feet
- School Facility: 5280 Feet
- School Property Line: 5280 Feet
- Child Care Center: 5280 Feet

INSTRUCTIONS:
- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 175 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	407-3028	640	Sec.9 & 10: N/2

DRILLING PROGRAM

Proposed Total Measured Depth: 19092 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: _____ Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S Drilling Operations Plan)

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

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

Will oil based drilling fluids be used? Yes

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
CONDUCTOR	24	16	N/A	42	0	80	100	80	0
SURF	13+1/2	9+5/8	K-55	36	0	1500	415	1500	0
1ST	8+1/2	5+1/2	HCP-110	20	0	19092	2470	19092	1000

Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Hydrocarbon	NIOBRARA / CODELL	9072	6708	19092	7220			
Hydrocarbon	Niobrara	9112	6729	19092	7085			Btm MD=TD, Btm TVD=TVD @ BHL
Confining Layer	Pierre Shale	1314	1314	4661	4114			
Hydrocarbon	Sussex	4661	4114	5339	4463			
Groundwater	Upper Pierre	300	300	1314	1314	1001-10000	Other	Water Quality and the Presence and Origin of Methane in the Upper Pierre Aquifer in Northeastern Weld County, Morgan County and Logan County, Colorado COGCC Project Number 2141 October 2017 Estimated slightly over 1,000 mg/L from TDS data in Figure 5.
Hydrocarbon	Shannon	5339	4463	5383	4492			
Confining Layer	Pierre Shale	5383	4492	9112	6729			
Groundwater	Laramie-Fox Hills	0	0	139	139	1001-10000	Other	Data Source: CSU - Domestic Water Analysis Report - Larry Moore Well - 176559

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)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

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

OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- Rule 603.a.(2) Exception Location (Property Line Setback).

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

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
2	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point to into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.
3	Drilling/Completion Operations	Operator acknowledges and will comply with COGCC policy for Bradenhead Monitoring during Hydraulic Fracturing treatments in the Greater Wattenberg Area dated May 29, 2012.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment List

Att Doc Num	Name
402510267	FORM 2 SUBMITTED
402510272	DIRECTIONAL DATA
402510276	SURFACE AGRMT/SURETY
402510279	DEVIATED DRILLING PLAN
402515891	LEASE MAP
402515894	EXCEPTION LOC REQUEST
402515897	WELL LOCATION PLAT
402531439	OffsetWellEvaluations Data
402570867	OFFSET WELL EVALUATION

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	12/29/2020
Permit	COGCC conducted the technical review for the related Oil and Gas Location Assessment permit, Form 2A document #402449623 under the statutory authority provided through SB 19-181, including the Objective Criteria. The Director approved the Form 2A on 11/5/2020, establishing Location ID #478497 subject to conditions included in the permit. The well proposed by this related Form 2 was contemplated during COGCC's review of the Form 2A. The Objective Criteria Review Memo (Doc# 1347977) can be found in the document file for this Location.	12/29/2020
Engineer	Offset Wells Evaluated.	12/03/2020
Permit	Passed Completeness.	11/24/2020
Permit	Location ID missing. Return to draft.	10/28/2020

Total: 5 comment(s)