

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.)

T9N R79W Sec. 2: Lots 7-10, 15-20; Sec. 3: E2 of Lot 10, NE of Lot 19, Lots: 5-7, 11-14,20; Sec. 11: NE, N2NW, N2SE, N2NESE, SENESE; Sec. 35: W2SW, SESW, SWSWNW, SWNESW

Total Acres in Described Lease: 1178 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COD28963

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1235 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1542 Feet
 Building Unit: 5280 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 896 Feet
 Above Ground Utility: 272 Feet
 Railroad: 5280 Feet
 Property Line: 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, 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: _____

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 323 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 2915 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): McCallum Unit Number: COC47650X

SPACING & FORMATIONS COMMENTS

This is a unit well. It conforms to federal unit spacing.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
DAKOTA-LAKOTA	DK-LK			
NIOBRARA	NBRR			

DRILLING PROGRAM

Proposed Total Measured Depth: 5266 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 315 Feet (Including plugged wells)

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 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? No

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 609

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>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	28	20	63	0	80	50	80	0
SURF	17+1/2	13+3/8	54.4	0	250	300	250	0
1ST	12+1/4	9+5/8	40	0	3000	850	3000	0
OPEN HOLE	8+3/4			3000	5266			

Conductor Casing is NOT planned

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

Comments

This well will be drilled as a vertical pilot hole and then plugged back and drilled as a horizontal sidetrack into the Niobrara. The Pilot Hole will not be produced. The horizontal APD is being submitted concurrently (Doc. 400613901). Please see the attached Drilling Program for plug back information. Offset wells will be evaluated in the horizontal sidetrack APD submission. The location drawing is incorrect; there is no high occupancy building within 1-mile.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: Andrea Gross

Title: Permit Agent Date: 6/9/2014 Email: agross@upstreampm.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: 7/29/2014

Expiration Date: 07/28/2016

API NUMBER

05 057 06532 00

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

COA Type

Description

	<p>(1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED. SEE ATTACHED NOTICE.</p> <p>(2) INTERMEDIATE CASING (9+5/8" FIRST STRING) CEMENT SHALL EXTEND FROM THE INTERMEDIATE CASING SHOE TO 200' ABOVE THE SURFACE CASING SHOE TO PROVIDE FULL ISOLATION OF ALL CRETACEOUS OIL, GAS, OR WATER-BEARING HORIZONS BEHIND THE INTERMEDIATE CASING. INTERMEDIATE CASING (9+5/8" FIRST STRING) CEMENT COVERAGE VERIFICATION BY CBL IS REQUIRED.</p> <p>(3) MINIMUM REQUIRED ISOLATION FOR PILOT HOLE PLUG-BACK PRIOR TO DRILLING LATERAL: OPEN-HOLE CEMENT ISOLATION PLUGS SHALL BE SET IN THE PILOT HOLE (00 WELLBORE) FROM THE DAKOTA GROUP TOP TO 100' ABOVE THE DAKOTA GROUP TOP AND FROM THE FRONTIER FORMATION TOP TO 100' ABOVE THE FRONTIER FORMATION TOP, IN ADDITION TO THE LATERAL KICK-OFF PLUG IN THE NIOBRARA FORMATION.</p>
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Best Management Practices

No BMP/COA Type

Description

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Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

Attachment Check List

Att Doc Num

Name

400615075	FORM 2 SUBMITTED
400623613	DRILLING PLAN
400624612	WELL LOCATION PLAT

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	7/29/2014 10:12:09 AM
Permit	Pilot hole in Fed Unit. Ready to pass pending public comment 7/3/14.	7/2/2014 2:02:47 PM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1-MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1-MILE IS 150 FEET DEEP.	6/30/2014 1:32:12 PM
Engineer	This is a pilot hole with no planned stimulation. Refer to the associated lateral wellbore Form 2 #400613901 for the offset well evaluation.	6/30/2014 1:24:12 PM
Engineer	Removed plug-back cement details from Open Hole line item in the Casing section of this form. Operator intends to plug the pilot hole back with two 300 sack premium Class G cement plugs prior to drilling the lateral wellbore. Estimated kick-off point for the lateral wellbore is 3,096' measured depth.	6/30/2014 1:07:42 PM
Permit	Passed completeness. Well location information has been corrected. Confirmed with operator about the pilot hole proposed TD. For the Pilot Hole it is 5,266' and 7,295' is for the Sidetrack.	6/11/2014 11:47:39 AM
Permit	Return to draft. Lat/long, SHL, and PDOP do not match the attached well plat. Proposed total depth and Casing total depth appear to be the TVD from the drilling plan rather than the MD.	6/10/2014 4:21:36 PM

Total: 7 comment(s)