

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.)

S/2 S/2 28, W/2 NW/4, SW/4 & W/2 SE/4 30, 31, 32, W/2 SW/4 & N/2 33, T13S-R42W
E/2 23, W/2 24, 25, E/2 E/2 26, 36, T13S-R43W
W/2 W/2 5, 6, 7, T14S-R42W
E/2 E/2 4, E/2 E/2 12, T14S-R43W
NWAU Unit outline.

Total Acres in Described Lease: 6000 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: 659 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 2330 Feet
Building Unit: 2429 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 630 Feet
Above Ground Utility: 620 Feet
Railroad: 5280 Feet
Property Line: 570 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: 1057 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1990 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
MORROW	MRRW	449-31		

DRILLING PROGRAM

Proposed Total Measured Depth: 5400 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1057 Feet (Including plugged wells)

Will a closed-loop drilling system be used? No

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: ONSITE Drilling Fluids Disposal Methods: Evaporation

Cuttings Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	8+5/8	24	0	500	300	500	0
1ST	7+7/8	5+1/2	15.5	0	5400	150	5400	4400
			Stage Tool	0	3000	350	3000	0

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 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: TANNIS TRITT _____

Title: EXECUTIVE ASSISTANT Date: 9/10/2014 Email: TTRITT@MULLDRILLING.CO

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: 10/9/2014

Expiration Date: 10/08/2016

API NUMBER

05 017 07799 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

	Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged.
	1) Provide 48 hour notice prior to spud via electronic Form 42. 2) If production casing is set provide cement coverage from TD to at least 200' above MRRW. Cement across Cheyenne/Dakota aquifers (2400' - 1700'). Verify with CBL. 3) If well is a dry hole set the following plugs: 40 sks cement +/- 50' above the MRRW, 40 sks cement +/- 50' above any DST w/ show, 40 sks cement at 2400' up, 40 sks cement at 1700' up, 50 sks cement from 50' below surface casing shoe up into surface casing, 10 sks cement in top of surface csg, cut 4 ft below GL, weld on plate, 5 sks cement each in rat hole and mouse hole.

Best Management Practices

No	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	<ul style="list-style-type: none"> • Conduct Initial Site Assessment <ul style="list-style-type: none"> o Identification of nearby water bodies o Identification of vegetation types o Identification of protected wildlife species o Identification of potential access routes to minimize disturbances o Identification of nearby improvements
2	Pre-Construction	<ul style="list-style-type: none"> • Preparation of a Storm Water Pollution Prevention Plan. Acquisition of a Storm Water Discharge Permit • Consultation with the surface landowner or appointed agent • Finalize access routes • Finalize well pad location to minimize surface grade impacts • Finalize well pad layout to minimize disturbances • Develop wildlife management plan if protected species are present
3	General Housekeeping	<ul style="list-style-type: none"> • Drilling and production operations conducted in safe, workmanlike manner. Safety expectations include good housekeeping. • During drilling/completion operations, debris stored in caged container which is removed from the site. • During production operations, the lease is inspected daily by MDC personnel.
4	Wildlife	<ul style="list-style-type: none"> • Development and implementation of a Wildlife Management Plan if protected species are present
5	Storm Water/Erosion Control	<ul style="list-style-type: none"> • During drilling / completion operations, implementation of Storm Water Pollution Prevention Plan • Following drilling/completion operations, prompt reclamation of disturbed areas • During production operations, implementation of MDC's Post Construction Storm Water Management Program
6	Material Handling and Spill Prevention	<ul style="list-style-type: none"> • During drilling/completion operations, storage areas graded towards pit • During production operations, implementation of Spill Prevention, Control and Countermeasure Plan & daily inspection • All stock and produced water tanks have secondary containment
7	Construction	<ul style="list-style-type: none"> • Access road, well pad and pit disturbances minimized • Soils segregated by type to facilitate reclamation • Storm water controls deployed and routinely inspected
8	Drilling/Completion Operations	<p>Includes Structural Practices</p> <ul style="list-style-type: none"> • Implement Storm Water Pollution Prevention Plan, including routine inspections and evaluation of effectiveness • Locate tank batteries at safe distance from public roadways and railhead • Full containment for stock tanks and separators • Installation of pipelines in common trenches when practical • Installation of pipelines at right angles to water bodies (drainages, wetlands, perennial water bodies) where practical <p>Site Specific:</p> <ol style="list-style-type: none"> 1. Reporting of the presence of H2S will be done via verbal and email notices. Verbal notice with a follow up email will be provided as soon as practicable upon detection of H2S to COGCC's area engineer and the local government designee. 2. Per ephemeral stream 29 feet southeast of staked location – structural practices will be implemented at the site to minimize erosion and sediment transport. Practices may include but are not limited to: straw bales, wattles/sediment control logs, silt fences, earth dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, and temporary sediment basins.

9	Interim Reclamation	<ul style="list-style-type: none"> • Debris and waste material removed • Areas not in use reclaimed promptly; pits closed using segregated material; well pad and other compacted surfaces ripped • Noxious weeds controlled
10	Final Reclamation	<ul style="list-style-type: none"> • All equipment and debris removed • All remaining disturbed areas, including access roads, reclaimed • Noxious Weed Control Plan developed if appropriate

Total: 10 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2519313	PLAT
400682928	FORM 2 SUBMITTED
400683852	WELL LOCATION PLAT
400683911	30 DAY NOTICE LETTER

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	10/9/2014 7:49:46 AM
Permit	Changed distances to other wells and buildings. Operator notified. Operator approved.	10/9/2014 6:19:51 AM
Permit	The Unit agreement recinded spacing requirements under Rule 449, 458, 477.	9/15/2014 1:35:45 PM
Permit	Operator listed unit acreage as the lease boundary. Original lease was section 25 (railroad section). Requested clarification. Operator agreed.	9/15/2014 1:27:11 PM
Permit	Passed completeness.	9/11/2014 12:28:04 PM

Total: 5 comment(s)