

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:

TYPE OF WELL OIL GAS COALBED OTHER UNPLANNED Refiling

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES Sidetrack

Well Name: Diamond Valley East Well Number: 13

Name of Operator: EXTRACTION OIL & GAS LLC COGCC Operator Number: 10459

Address: 1888 SHERMAN ST #200

City: DENVER State: CO Zip: 80203

Contact Name: Kaleb Roush Phone: (720)557-8322 Fax: ()

Email: kroush@extractionog.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20130028

WELL LOCATION INFORMATION

QtrQtr: SWSW Sec: 23 Twp: 6N Rng: 67W Meridian: 6

Latitude: 40.467930 Longitude: -104.869800

Footage at Surface: 992 feet FNL/FSL FSL 155 feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4769 County: WELD

GPS Data:
Date of Measurement: 08/19/2014 PDOP Reading: 1.9 Instrument Operator's Name: MARK ANGELL

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

2642 FSL 460 FEL 2634 FSL 460 FWL

Sec: 22 Twp: 6N Rng: 67W Sec: 21 Twp: 6N Rng: 67W

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: No

The right to construct the Oil and Gas Location is granted by: applicant is owner

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.)

T6n-R67W, SEC. 22:SW/4

Total Acres in Described Lease: 160 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: 155 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 964 Feet
Building Unit: 1005 Feet
High Occupancy Building Unit: 3331 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 970 Feet
Above Ground Utility: 1290 Feet
Railroad: 1345 Feet
Property Line: 155 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: 09/01/2014

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 80 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

S2/N2 & N2/S2 OF SEC. 21-T6N-R67W; S2/N2 & N2/S2 OF SEC. 22-T6N-R67W

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CODELL	CODL		640	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 16430 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 80 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 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? No

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	13+1/2	9+5/8	36	0	750	398	750	0
1ST	8+3/4	7	26	0	7745	756	7745	0
1ST LINER	6+1/8	4+1/2	13.5	7545	16430			

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

The Operator proposes to sidetrack a well in Section 23, Township 6N, Range 67W in Weld County, Colorado as follows:

SHL: 992' FSL 155' FWL

Top of Production: 2642 FSL 460 FEL

BHL: 2634' FSL 460' FWL Sec 21, T6N, R67W (same as original APD)

Proposed sidetrack point: 11944' MD

This well is a Rule 318A.a.(4)D Horizontal GWA Well: PSU Map is attached to document #400669093. Operator notified via certified mail on 9/4/13 all owners as defined in C.R.S. 34-60-103(7) within the proposed spacing unit and received no written objections. Extraction respectfully requested that the Rule 318A.a.(4)D Horizontal well and proposed spacing unit be approved. Application is surface owner and waives Rule 318A.a and 318A.c. Request was attached to document #400669093.

Operator intends to drill the well the Codell formation at 16,430' MD and 7195' TVD.

See CORRESPONDENCE attachment for REQUIRED OPERATOR COMMENTS for UNPLANNED Sidetrack While Drilling. The pertinent comments are as follows:

"We are having an issue on the Diamond Valley East #13 (API# - 05-123-40317-00). We had no issues maintaining the target zone until roughly 12100', where we exited. Seismic data shows the formation top above our current depth and our off-set horizontal wells showed a 10' fault shifting the Niobrara upward. Neither of these have proved to be true.

We have spent the rest of the lateral trying to get back in zone with no success.

As you can see we have been skipping off the top of the Codell since. We have spent too much time out of zone and need to sidetrack. I would like to open hole sidetrack, if the State will allow it. Tentatively, I am planning to open hole sidetrack about 11944' . We will cement this liner after sidetrack is complete and drilled to TD, so isolation will not be an issue."

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

Location ID: 435083

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Kaleb Roush

Title: Drilling Technician Date: _____ Email: kroush@extractionog.com

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: _____

Expiration Date: _____

API NUMBER

05 123 40317 01

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.

Best Management Practices

No BMP/COA Type

Description

No BMP/COA Type	Description

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400741365	CORRESPONDENCE
400741419	WELLBORE DIAGRAM
400742046	DEVIATED DRILLING PLAN

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>

Total: 0 comment(s)

