

FORM
2
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:
400764505

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
01/14/2015

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Well Name: Sheep Mountain Unit Well Number: 6-4-I
Name of Operator: OXY USA INC COGCC Operator Number: 66561
Address: PO BOX 27757 #110
City: HOUSTON State: TX Zip: 77227-7757
Contact Name: Joan Proulx Phone: (970)263-3641 Fax: (970)263-3694
Email: joan_proulx@oxy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20060139

WELL LOCATION INFORMATION

QtrQtr: NWNE Sec: 9 Twp: 27S Rng: 70W Meridian: 6
Latitude: 37.721810 Longitude: -105.222840

Footage at Surface: 305 feet FNL/FSL FNL 2039 feet FEL/FWL FEL

Field Name: SHEEP MOUNTAIN Field Number: 77230

Ground Elevation: 8124 County: HUERFANO

GPS Data:
Date of Measurement: 10/29/2014 PDOP Reading: 2.4 Instrument Operator's Name: E Purcell

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
1223 FSL 1313 FEL 2546 FNL 615 FEL
Sec: 4 Twp: 27S Rng: 70W Sec: 4 Twp: 27S Rng: 70W

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: 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.)

Sec 4, T27S, R70W: S1/2N1/2, N1/2S1/2

Total Acres in Described Lease: 320 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: 4800 Feet

Building Unit: 4890 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 4040 Feet

Above Ground Utility: 960 Feet

Railroad: 5280 Feet

Property Line: 305 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: 924 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1235 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): Sheep Mountain Unit Number: 047683X

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.)
DAKOTA	DKTA			
ENTRADA	ENRD			

DRILLING PROGRAM

Proposed Total Measured Depth: 9681 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 924 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? 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 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: ONSITE Drilling Fluids Disposal Methods: Recycle/reuse

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

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24+0/0	20+0/0	65	0	100	4	100	0
SURF	17+1/2	13+3/8	54.5	0	976	623	976	0
1ST	12+1/4	9+5/8	40	0	2245	446	2245	0
2ND	8+1/2	7+0/0	26	0	9681	407	9681	1719

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 OXY USA Inc. is proposing to drill two CO2 wells from an existing pad, the 6-4-I pad, COGCC location # 334553. The existing location will be expanded to accommodate the two proposed wells. The COGCC GIS map indicates there are three pad location numbers for the location in question: 324499, 333353 and 334553. A Form 4 Sundry Notice has been submitted, document #400755420, to consolidate the locations into one location number of #334553.

There are six producing wells on the location:
Well Name API Location #
2-9-H 05-055-06057 324499
6-9-B 05-055-06075 333353
5-9-A 05-055-06073 333353
3-4-O 05-055-06065 334553
4-4-P 05-055-06072 334553
7-9 05-055-06031 334553

The pad lies on private (fee) surface. The proposed 6-4-I well will pass through BLM minerals and bottom hole in fee minerals. The proposed production will be obtained from both BLM and fee minerals. The proposed 1-3-M well will reach into and bottom hole in Federal minerals. The BHLs for both wells lie within an Exploratory Unit. All access roads, pipelines and production facilities are existing, with the exception of an approximate 150' pad access road and a new flowline for the two proposed wells.

OXY will provide appropriate housing for essential personnel in order to conduct safe, efficient drilling operations at this site.

A closed-loop system will be utilized.

The nearest building to the proposed wells is the compressor building located on the original pad footprint. The next closest building is a house located 4,970' away, which is the distance used for the Cultural Distance Information on the Form 2 and Form 2A.

Surface owner consultation: All communication with the surface owner is to be routed through the surface owner's representative. An invitation was extended to the surface owner on Nov. 11, 2014, for a pre-consultation meeting/visit. Her attorney responded that the surface owner's schedule will not allow the surface owner to attend. A second invitation was extended requesting alternate dates and no response was received. Per the BLM, they also sent an invitation to the surface owner to attend the on-site Notice of Staking/pre-consultation meeting and no response was received. The surface owner recently acquired a new representative and a request for a surface owner consultation was received by OXY on January 9, 2015. Arrangements are being made for the surface owner consultation.

The proposed pad extension lies within a black bear area; the OXY BMP for black bear wildlife is attached. The CPW consultation occurred on 12/8/2014 via email to Brett Ackerman.

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

Location ID: 334553

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: Joan Proulx

Title: Regulatory Date: 1/14/2015 Email: joan_proulx@oxy.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: 4/3/2015

Expiration Date: 04/02/2017

API NUMBER
05 055 06321 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.

<u>COA Type</u>	<u>Description</u>
	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. A CBL log shall be run to surface. At a minimum another cased hole log shall be run on wells not logged with an open hole log.
	<ol style="list-style-type: none"> 1) Provide 48 hour notice prior to spud via electronic Form 42. 2) Do not use oil base mud until after surface casing is set and then use closed loop system. 3) Ensure cement coverage of production casing to 200' above Dakota. Verify coverage with cement bond log. 4) If dry hole set the following plugs: 40 sks cement 50' above the Entrada, 40 sks cement 50' above the Dakota, 90 sks cement from 50' below to 50' above surface casing shoe, 40 sks cement at top of surface casing, cut casing 4-ft below GL, weld on plate, 5 sks cement in rat hole and mouse hole. 5) Run and submit Directional Survey from TD to base of surface casing.

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2519666	SURFACE AGRMT/SURETY
400764505	FORM 2 SUBMITTED
400764945	TOPO MAP
400764951	DEVIATED DRILLING PLAN
400764956	DEVIATED DRILLING PLAN
400764958	DIRECTIONAL DATA
400770028	WELL LOCATION PLAT
400770172	MINERAL LEASE MAP
400770173	OIL & GAS LEASE
400770466	DRILLING PLAN
400770819	FED. DRILLING PERMIT

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	4/3/2015 7:17:43 AM
Permit	Changed distance from wellhead to nearest building to 4800 feet based on the Location Drawing and Ogla review of the from 2A. Changed distance from wellhead to nearest Building Unit to 4890 feet based on the Location Drawing and Ogla review of the from 2A. Changed distance from wellhead to the nearest public road to 4040 feet based on the Location Drawing and Ogla review of the from 2A. Changed distance to Unit boundary based on COGCC GIS map.	4/1/2015 11:06:56 AM
Permit	Distance from another well plugged or producing from the same formation changed from 475' to 924' based off coordinates from the directional survey of the Sheep Mountain 4-4-P.	2/5/2015 11:47:08 AM
Permit	Productive portion of the well crosses through FED lease (COC 004399A) and the Fee lease. Therefore distance to lease line is 0'. Changed from 615'.	2/5/2015 10:37:06 AM
Permit	Right to construct is a surface use agreement on Fee lands. Missing attachment that represents a signed document by surface owner. Attached provided SUA.	2/5/2015 8:06:34 AM
Engineer	Asked operator about cement tops for int and prod csgs. Operator (N.Vega) called back, reviewed 9-point drilling plan. TOC on 7" is surf.	2/4/2015 10:36:10 AM
Permit	Corrected Surface Use Agreement file label from "Mineral Lease Map" to "Surface AGRMT/Surety" Passed completeness.	1/20/2015 9:55:39 AM

Total: 7 comment(s)