

# OPERATOR'S COPY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5. Lease Serial No. **54; BH**  
**NM-117119 NM12559**  
6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. **58957**  
**COTTONMOUTH "13" FED. COM.**

2. Name of Operator  
**OGX RESOURCES, LLC.** (Jeff Birkelbach 432-685-1287) **217955**

9. API Well No.  
**30-015-39734**

3a. Address  
**P. O. BOX 2064 MIDLAND, TEXAS 79702**

3b. Phone No. (include area code)  
**432-685-1287**

10. Field and Pool, or Exploratory  
**DELAWARE RIVER-BONE SPRING**

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface **810' FSL & 2630' FWL SEC. 13 T26S-R28E**  
At proposed prod. zone **330' FSL & 2310' FWL SEC. 24 T26S-R28E**

**UNORTHODOX LOCATION**

11. Sec., T. R. M. or Blk. and Survey or Area  
**SECTION 13 T26S-R28E**

14. Distance in miles and direction from nearest town or post office\*  
**Approximately 14 miles South of Malaga New Mexico**

12. County or Parish  
**EDDY CO.**

13. State  
**NM**

15. Distance from proposed\* location to nearest property or lease line, ft.  
(Also to nearest drig. unit line, if any) **330'**

16. No. of acres in lease  
**320**

17. Spacing Unit-dedicated to this well-  
**160**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. **NA**

19. Proposed Depth  
**TVD-7050'**  
**MD-12,644'**

20. BLM/BIA Bond No. on file  
**NMB-000244**

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
**2920' GL**

22. Approximate date work will start\*  
**WHEN APPROVED**

23. Estimated duration  
**25 days**

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

**RECEIVED**  
**DEC 02 2011**  
**NM OGD APPEALS**

25. Signature  
**Joe T. Janica**  
Title  
**Permit Eng.**

Name (Printed/Typed)  
**Joe T. Janica**

Date  
**10/11/11**

Approved by (Signature)  
**[Signature]**  
Title  
**FIELD MANAGER**

Name (Printed/Typed)

Date  
**12/11/11**

Office  
**CARLSBAD FIELD OFFICE**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

Witness Surface &  
Intermediate Casing

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approval Subject to General Requirements  
& Special Stipulations Attached

**Colt**

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator CGX OGRID # 217955  
 Well Name & # Cottonmouth 13 Fed Com Surface Type (F) (S) (P)  
 Location: UL 17, Sect 13, Township 26s, RNG 28e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 12/02/2011 C101 reviewed 12/02/2011

B. 1. Check mark, Information is OK on Forms:

OGRID ✓, BONDING ✓, PROP CODE ✓, WELL # ✓, SIGNATURE ✓

2. Inactive Well list as of: 12/02/2011 # wells 40, # Inactive wells 0

a. District Grant APD but see number of inactive wells:

No letter required ✓; Sent Letter to Operator       , to Santa Fe       

3. Additional Bonding as of: 12/02/2011

a. District Denial because operator needs addition bonding:

No Letter required ✓; Sent Letter to Operator       , To Santa Fe       

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required ✓; Sent Letter to Operator       , To Santa Fe       

C. C102 YES ✓, NO       , Signature ✓

1. Pool RGD BLUEP; B.S. South, Code 51010

a. Dedicated acreage       , What Units       

b. SUR. Location Standard       : Non-Standard Location       

c. Well shares acres: Yes       , No       , # of wells        plus this well #       

2. 2<sup>nd</sup>. Operator in same acreage, Yes       , No       

Agreement Letter       , Disagreement letter       

3. Intent to Directional Drill Yes ✓, No       

a. Dedicated acreage 160, What Units       

b. Bottomhole Location Standard       , Non-Standard Bottomhole       

4. Downhole Commingle: Yes       , No       

a. Pool #2       , Code       , Acres       

Pool #3       , Code       , Acres       

Pool #4       , Code       , Acres       

5. POTASH Area Yes       , No ✓

D. Blowout Preventer Yes ✓, No       

E. H2S Yes       , No ✓

F. C144 Pit Registration Yes ✓, No       

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes       , No ✓, NSL #       

2. Non-Standard Proration: Yes       , No ✓, NSP #       

3. Simultaneous Dedication: Yes       , No ✓, SD #       

Number of wells        Plus #       

4. Injection order Yes       , No ✓; PMX #        or WFX #       

5. SWD order Yes       , NO ✓; SWD #       

6. DHC from SF       ; DHC-HOB       ; Holding       

7. OCD Approval Date 12/02/2011

API #30-015-39734

8. Reviewers TRG

# APPLICATION TO DRILL

OGX RESOURCES, LLC.  
COTTONMOUTH "13" FEDERAL COM. #1H  
UNIT "N" SECTION 13  
T26S-R28E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provided.

1. LOCATION: SHL: 810' FSL & 2630' FWL SECTION 13 T26S-R28E EDDY CO. NM  
BHL 330' FSL & 2310' FWL SECTION 24 T26S-R28E EDDY CO. NM
2. ELEVATION ABOVE SEA LEVEL: 2920' GL
3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits;
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from the hole.
5. PROPOSED DRILLING DEPTH: TVD-7050'  
MD-12,644'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	400'	Cherry Canyon	3500'
Basal Anhydrite	2420'	Brushy Canyon	4700'
Lamar Lime	2600'	Bone Spring	6350'
Bell Canyon	2630'	TVD	7050'
		TOP OF SALT 520'	Base of Salt 1560'
7. POSSIBLE MINERAL BEARING FORMATIONS:

Bell Canyon	Oil/Gas/Form. Water	Brushy Canyon	Oil/Gas/Form. Water
Cherry Canyon	Oil/Gas/Form. Water	Bone Spring	Oil/Gas/Form. Water
Possible Fresh Water 100±'			
8. CASING PROGRAM:

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
26"	0-40'	20"	NA	NA	NA	Conductor	New
17½"	0-425'	13 3/8"	48#	8-R	ST&C	H-40	New
11"	0-2625'	8 5/8"	32#	8-R	ST&C	J-55	New
7 7/8"	0-6400'	5 ½"	17#	8-R	LT&C	P-110	New
7 7/8"	6400-12,644'	5½"	17#	Buttress	BT&C	P-110	New

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5  
Joint Strength 8-Round 1.8  
Buttress 1.6

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9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Run and set 425' of 13 3/8" 48# H-40 ST&C casing. Cement to surface with 225 Sx. of 35/65/6 Premium Plus Class "C" POZ, + 6% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.00, tail in with 200 Sx. of Premium Plus Class "C" cement + 2% CaCl, Yield 1.34 circulate cement to surface. 50% Excess
8 5/8"	Intermediate	Run and set 2625' of 8 5/8" 32# J-55 ST&C casing. Cement with 300 Sx. of 35/65 Premium Plus Class "C" POZ cement + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx., Yield 2.02, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.34, Circulate cement to surface. After running fluid caliper add 25% Excess
5 1/2"	Production	Run and set 12,644' of 5 1/2" casing as follows: 6244' of 5 1/2" 17# P-110 BTC, 6400' of 5 1/2" 17# P-110 LT&C casing. Cement with 400 Sx. of 35/65 Premium Plus Class "C" POZ cement + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.02, tail in with 900 Sx. of Class "C" cement + 2% CaCl, Yield 1.34 circulate cement to surface. After fluid caliper and open hole caliper has been run and volume calculated add 25% Excess

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor. middle blind rams, and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period, and the blind rams will be operated when the drill pipe is out of the hole. Full opening stabbing valve and upper kelly cock will be available at all times on the derrick floor. Exhibit "E-1" shows a hydraulically operate closing unit and a 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well.  
B.O.P. 13 5/8" X 11"

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T26S-R28E EDDY CO. NM

## 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-425	8.6-8.8	36-38	NC	Fresh water Spud Mud, us paper to control seepage
425-2625'	10.0-10.1	29-30	NC	Brine water use paper to control seepage and high viscosity sweeps to clea hole.
2625-6400'	8.4-9.1	28-29	NC	Fresh water use paper to control seepage and high viscosity sweeps to clea hole.
6400-12,644'	8.4-9.1	34-36	12-15 cc or less	Same as above use Dynaza HB-411 and starch to cont fluid loss and hole stab ity.

A closed mud system will be employed during the drilling of this well all cutting  
and fluids will be disposed in a State approved disposal facility..

Sufficient mud materials will be kept on location at all times in order to combat  
lost circulation, or unexpected kicks. In order to run DST's, open hole logs, cut  
cores and casing, the viscosity, water loss and other properties may have to be  
altered to meet these requirements.

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12. LOGGING , CORING , AND TESTING PROGRAM: *See COR*

- A. Open hole logs: Dual Laterolog, Neutron/Density, Gamma Ray, Caliper from KOP back to 8 5/8" casing shoe. Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- B. Mud logger will be rigged up on hole below the 13 3/8" casing and remain on the hole to TD.
- C. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated bottom hole pressure 3048 PSI and estimated bottom hole temperature 139°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after The BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 25 days. If production casing is run then an additional 20 days will be required to complete the well and construct surface production facilities.

15. OTHER FACETS OF OPERATION:

After running casing, cased hole Gamma Ray, Neutron, Collar logs will be run over the productive interval. The BONE SPRING formation will be perforated and stimulated in order to establish production, and potential as an oil well.