

16-622

# HOBBS OCD

Form 3160-3  
(March 2012)

OCD Hobbs  
MAY 09 2016

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMNM122621

6. If Indian, Allottee or Tribe Name

*H*

*(316203)*

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

8. Lease Name and Well No.  
Whirling Wind 11 Fed Com 704H

9. API Well No.  
30-025- *43224*

10. Field and Pool, or Exploratory  
WC-025 G-09 S253336D; Upper WC

*(98099)*

1a. Type of work:  DRILL  REENTER

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

2. Name of Operator EOG Resources, Inc *(7777)*

3a. Address P.O. Box 2267 Midland, TX 79702

3b. Phone No. (include area code)  
432-686-3689

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface 856' FSL & 2422' FEL, SWSE (O), Sec 11, 26S, 33E

At proposed prod. zone 2410' FSL & 2310' FEL, NWSE (J), Sec 2

**UNORTHODOX  
LOCATION**

11. Sec., T. R. M. or Blk. and Survey or Area  
Section 11, T26S, R33E

14. Distance in miles and direction from nearest town or post office\*  
Approximately +/- 23 miles Southwest from Jal, New Mexico

12. County or Parish  
Lea

13. State  
NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)  
230', 330' PP

16. No. of acres in lease  
1280

17. Spacing Unit dedicated to this well  
240 ac.

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.  
660' from 703H

19. Proposed Depth  
19979' MD, 12495' TVD

20. BLM/BIA Bond No. on file  
NM 2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3344' GL

22. Approximate date work will start\*  
08/01/2016

23. Estimated duration  
25 days

### 24. Attachments

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

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

25. Signature *Stan Wagner* Name (Printed/Typed) Stan Wagner Date *3/2/16*

Title  
Regulatory Specialist

Approved by (Signature) */s/George MacDonell* Name (Printed/Typed) Date **MAY - 4 2016**

Title **FIELD MANAGER** 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.

(Continued on page 2)

Carlsbad Controlled Water Basin

*Ka*  
*05/11/16*

See attached NMOCD  
Conditions of Approval

Approval Subject to General Requirements  
& Special Stipulations Attached

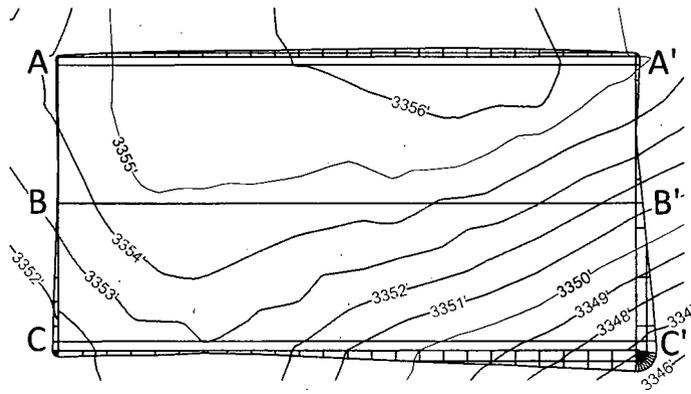
**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

MAY 12 2016

# EXHIBIT 6

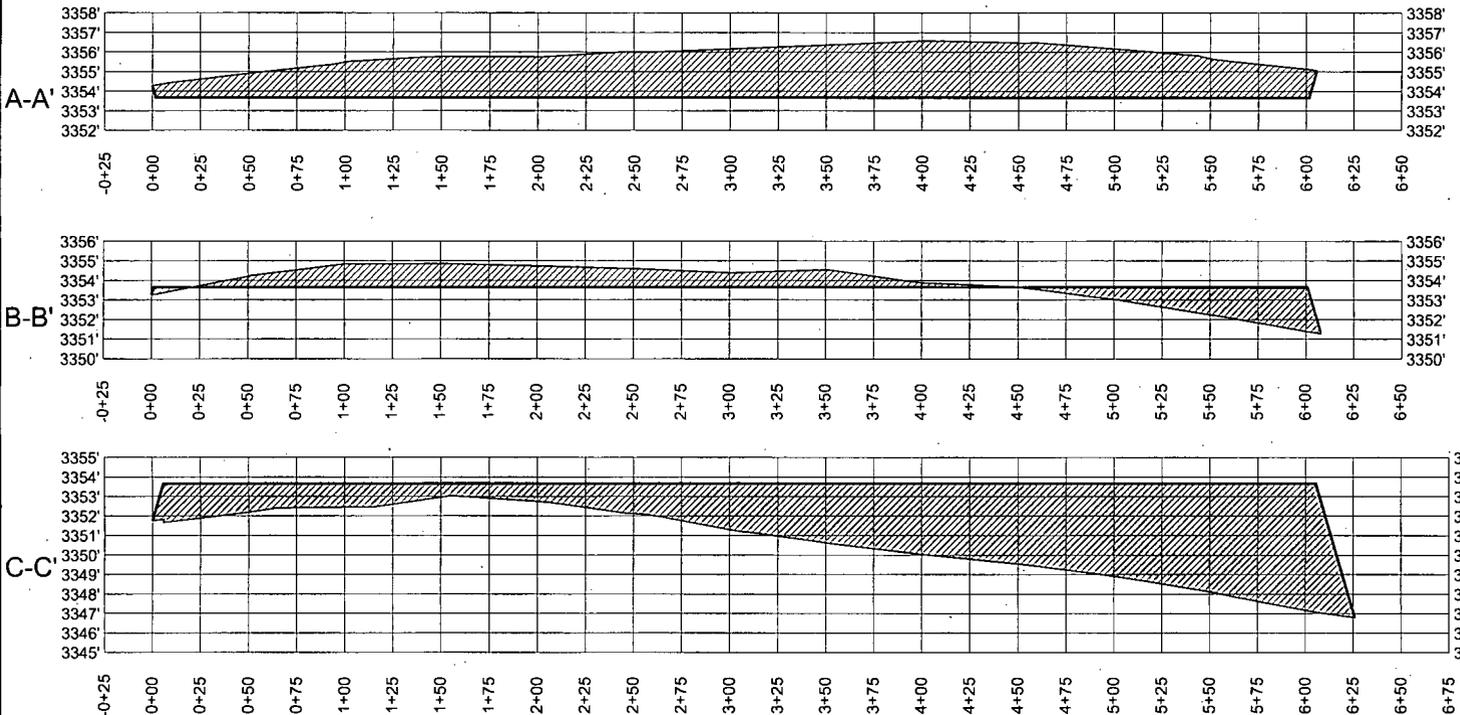
SECTION 11, TOWNSHIP 26-S, RANGE 33-E, N.M.P.M.  
LEA COUNTY, NEW MEXICO

SCALE: 1" = 200'



Top of pad elevation: 3353.6571  
Cut Slope: 33.33% 3.00:1 18.43°  
Fill Slope: 33.33% 3.00:1 18.43°  
Balance Tolerance (C.Y.): 0.00  
Cut Swell Factor: 1.00  
Fill Shrink Factor: 1.00

Pad Earthwork Volumes  
Cut : 152,754.3 C.F., 5,657.56 C.Y.  
Fill: 152,754.2 C.F., 5,657.56 C.Y.  
Balance Export: 0.1 C.F., 0.00 C.Y.  
Area: 193313.7 Sq.Ft., 4.438 Acres

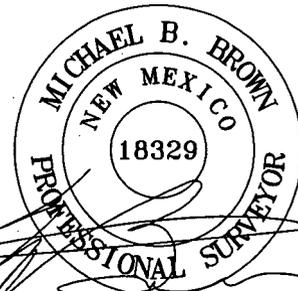


Horizontal Scale = 1:50  
Vertical Scale = 1:5



**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548  
TEXAS FIRM REGISTRATION NO. 10042504  
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329

MARCH 25, 2016



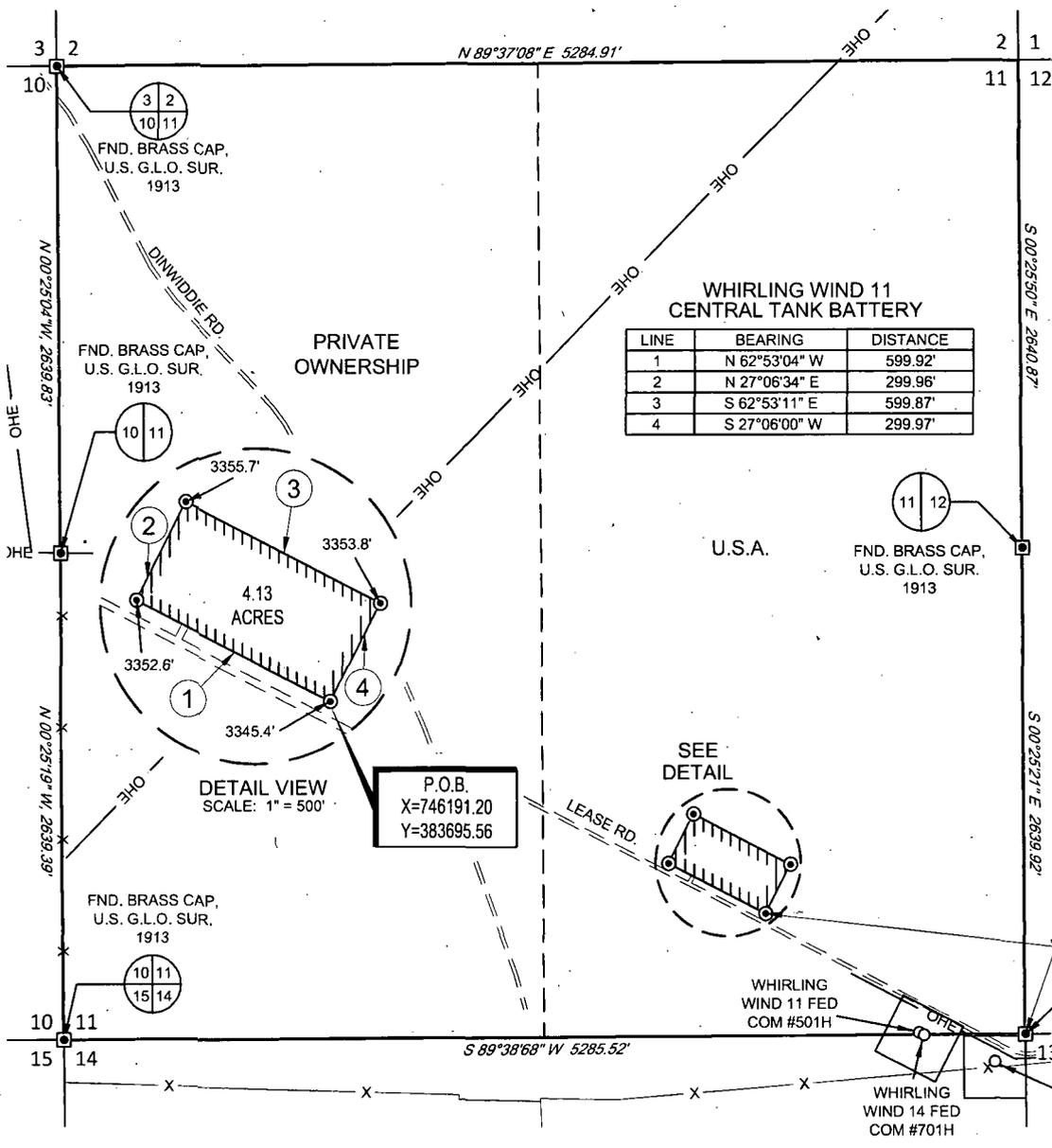
|                                      |           |      |
|--------------------------------------|-----------|------|
| WHIRLING WIND 11<br>CTB SITE PRO     | REVISION: |      |
|                                      | INT       | DATE |
| DATE: 03/25/16                       |           |      |
| FILE: CD_WHIRLINGWIND11_CTB_SITE_PRO |           |      |
| DRAWN BY: GLH                        |           |      |
| SHEET: 1 OF 1                        |           |      |

**NOTES:**

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.

SCALE: 1" = 1000'  
 0' 500' 1000'

SECTION 11, TOWNSHIP 26-S, RANGE 33-E, N.M.P.M.  
 LEA COUNTY, NEW MEXICO



**WHIRLING WIND 11  
CENTRAL TANK BATTERY**

| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| 1    | N 62°53'04" W | 599.92'  |
| 2    | N 27°06'34" E | 299.96'  |
| 3    | S 62°53'11" E | 599.87'  |
| 4    | S 27°06'00" W | 299.97'  |

**WHIRLING WIND 11  
CENTRAL TANK BATTERY**

Metes and Bounds Description of a 4.13 acre site located within Section 11, Township 26 South, Range 33 East, N.M.P.M., in Lea County, New Mexico.

BEGINNING at a 1/2" iron rod with cap marked "TOPOGRAPHIC" set for the South corner of this site, from whence a U.S. G.L.O. brass cap found for the Southeast corner of said Section 11, bears: S 65°27'42" E, a distance of 1567.75 feet;

Thence N 62°53'04" W, a distance of 599.92 feet to a 1/2" iron rod with cap marked "TOPOGRAPHIC" set for the West corner of this site;

Thence N 27°06'34" E, a distance of 299.96 feet to a 1/2" iron rod with cap marked "TOPOGRAPHIC" set for the North corner of this site;

Thence S 62°53'11" E, a distance of 599.87 feet to a 1/2" iron rod with cap marked "TOPOGRAPHIC" set for the East corner of this site;

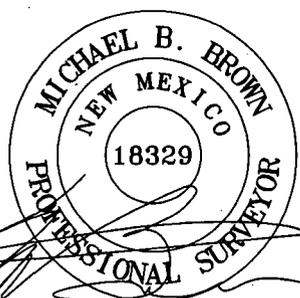
Thence S 27°06'00" W, a distance of 299.97 feet to the Point of Beginning.

**LEGEND**

- SURVEY/SECTION LINE
- SITE BOUNDARY
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- OVERHEAD ELECTRIC
- MONUMENT
- POINT OF INTERSECTION
- IRON ROD SET

**P.O.B.**  
 X=746191.20  
 Y=383695.56

SEE  
DETAIL



Michael Blake Brown, P.S. No. 18329  
 MARCH 17, 2016



1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140  
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548  
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705  
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743  
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|  |           |          |
|--|-----------|----------|
| WHIRLING WIND 11<br>CENTRAL TANK BATTERY | REVISION: |          |
|  | GJU       | 02/25/16 |
| DATE: 01/08/16                           | GLH       | 03/17/16 |
| FILE: BO_WHIRLINGWIND11_CTB_REV2         |           |          |
| DRAWN BY: GJU                            |           |          |
| SHEET: 1 OF 1                            |           |          |

**NOTES:**

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- CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
- P.O.B. = POINT OF BEGINNING

EOG RESOURCES, INC.  
WHIRLING WIND 11 FED COM NO. 704H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

|                                   |         |
|-----------------------------------|---------|
| Rustler                           | 1,100'  |
| Top of Salt                       | 1,440'  |
| Base of Salt / Top Anhydrite      | 4,880'  |
| Base Anhydrite                    | 5,120'  |
| Lamar                             | 5,120'  |
| Bell Canyon                       | 5,160'  |
| Cherry Canyon                     | 6,190'  |
| Brushy Canyon                     | 7,780'  |
| Bone Spring Lime                  | 9,250'  |
| 1 <sup>st</sup> Bone Spring Sand  | 10,220' |
| 2 <sup>nd</sup> Bone Spring Shale | 10,420' |
| 2 <sup>nd</sup> Bone Spring Sand  | 10,755' |
| 3 <sup>rd</sup> Bone Spring Carb  | 11,255' |
| 3 <sup>rd</sup> Bone Spring Sand  | 11,820' |
| Wolfcamp                          | 12,325' |
| TD                                | 12,495' |

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

|                                   |         |             |
|-----------------------------------|---------|-------------|
| Upper Permian Sands               | 0- 400' | Fresh Water |
| Cherry Canyon                     | 6,190'  | Oil         |
| Brushy Canyon                     | 7,780'  | Oil         |
| 1 <sup>st</sup> Bone Spring Sand  | 10,220' | Oil         |
| 2 <sup>nd</sup> Bone Spring Shale | 10,420' | Oil         |
| 2 <sup>nd</sup> Bone Spring Sand  | 11,755' | Oil         |
| 3 <sup>rd</sup> Bone Spring Carb  | 11,255' | Oil         |
| 3 <sup>rd</sup> Bone Spring Sand  | 11,820' | Oil         |
| Wolfcamp                          | 12,325' | Oil         |

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 10.75" casing at 1,125' and circulating cement back to surface.

**EOG RESOURCES, INC.**  
**WHIRLING WIND 11 FED COM NO. 704H**

**4. CASING PROGRAM - NEW**      SEE COA

1025

| Hole Size | Interval         | Csg OD | Weight | Grade   | Conn     | DF <sub>min</sub> Collapse | DF <sub>min</sub> Burst | DF <sub>min</sub> Tension |
|-----------|------------------|--------|--------|---------|----------|----------------------------|-------------------------|---------------------------|
| 14.75"    | 0 - 1,125'       | 10.75" | 40.5#  | J55     | STC      | 1.125                      | 1.25                    | 1.60                      |
| 9.875"    | 0-8,000'         | 7.625" | 29.7#  | HCP-110 | LTC      | 1.125                      | 1.25                    | 1.60                      |
| 8.75"     | 8,000' - 10,900' | 7.625" | 29.7#  | HCP-110 | Ultra FJ | 1.125                      | 1.25                    | 1.60                      |
| 6.75"     | 0' - 19,979'     | 5.5"   | 23#    | HCP-110 | ULT SFII | 1.125                      | 1.25                    | 1.60                      |

Variance is requested to wave the centralizer requirements for the 7-5/8" FI casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Centralizers will be placed in the 9-7/8" hole interval at least one every third joint.

SEE COA

Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Cementing Program:      SEE COA

| Depth             | No. Sacks  | Wt. ppg | Yld Ft <sup>3</sup> /ft | Mix Water Gal/sk | Slurry Description  |
|-------------------|------------|---------|-------------------------|------------------|---|
| 10-3/4"<br>1,125' | 325        | 13.5    | 1.73                    | 9.13             | Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface) |
| 1025              | 200        | 14.8    | 1.34                    | 6.34             | Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate                                |
| 7-5/8"<br>10,900' | 750        | 9.0     | 2.50                    | 9.06             | Class C + 0.6% ASM-3 + 0.15% CDF-4P + 0.6% LTR + 0.5% SCA-6 + 0.13 pps LCL-11 + 0.13 pps LDP-c-0215     |
|                   | 500        | 12.5    | 1.71                    | 9.06             | Class C + 0.6% LTR + 0.5% SCA-6 + 0.6% ASM-3 + 0.15% CDF-4P + 0.13% LCL-11 + 0.13% LCF-7                |
|                   | 250        | 15.6    | 1.19                    | 5.20             | Class H + 0.2% ASM-3 + 0.3% SCA-6 + 0.65% LTR + 0.3% SPC-2  |
| 5-1/2"<br>19,979' | <u>725</u> | 14.1    | <u>1.26</u>             | 5.80             | Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17  |

LOW CEMENT  
SEE COA

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

**EOG RESOURCES, INC.**  
**WHIRLING WIND 11 FED COM NO. 704H**

**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

SEE  
COA

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram; mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

**6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:**

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

| Depth                        | Type        | Weight (ppg) | Viscosity | Water Loss |
|------------------------------|-------------|--------------|-----------|------------|
| 0 - 1,125'                   | Fresh - Gel | 8.6-8.8      | 28-34     | N/c        |
| 1,125' - 10,900'             | Brine       | 8.8-10.0     | 28-34     | N/c        |
| 10,900' - 19,979'<br>Lateral | Oil Base    | 10.0-11.5    | 58-68     | 3- 6       |

1025

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

**EOG RESOURCES, INC.**  
**WHIRLING WIND 11 FED COM NO. 704H**

**7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:**

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H<sub>2</sub>S monitoring and detection equipment will be utilized from surface casing point to TD.

**8. LOGGING, TESTING AND CORING PROGRAM:**

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

SEE  
COA

**9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:**

The estimated bottom-hole temperature (BHT) at TD is 182 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 7472 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,300' to Intermediate casing point.

SEE  
COA

**10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

**11. WELLHEAD:**

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5000 psi.

SEE  
COA

**EOG RESOURCES, INC.**  
**WHIRLING WIND 11 FED COM NO. 704H**

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo FBD100 Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi. Prior to running the intermediate casing, the rams will be changed out to accommodate the 7-5/8" casing. The bonnet seals will be tested to 1500 psi. After installing the intermediate casing the casing rams will be removed and replaced with variable bore rams. The remaining BOPE will not be retested after installing the intermediate casing.

SEE  
CDA

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

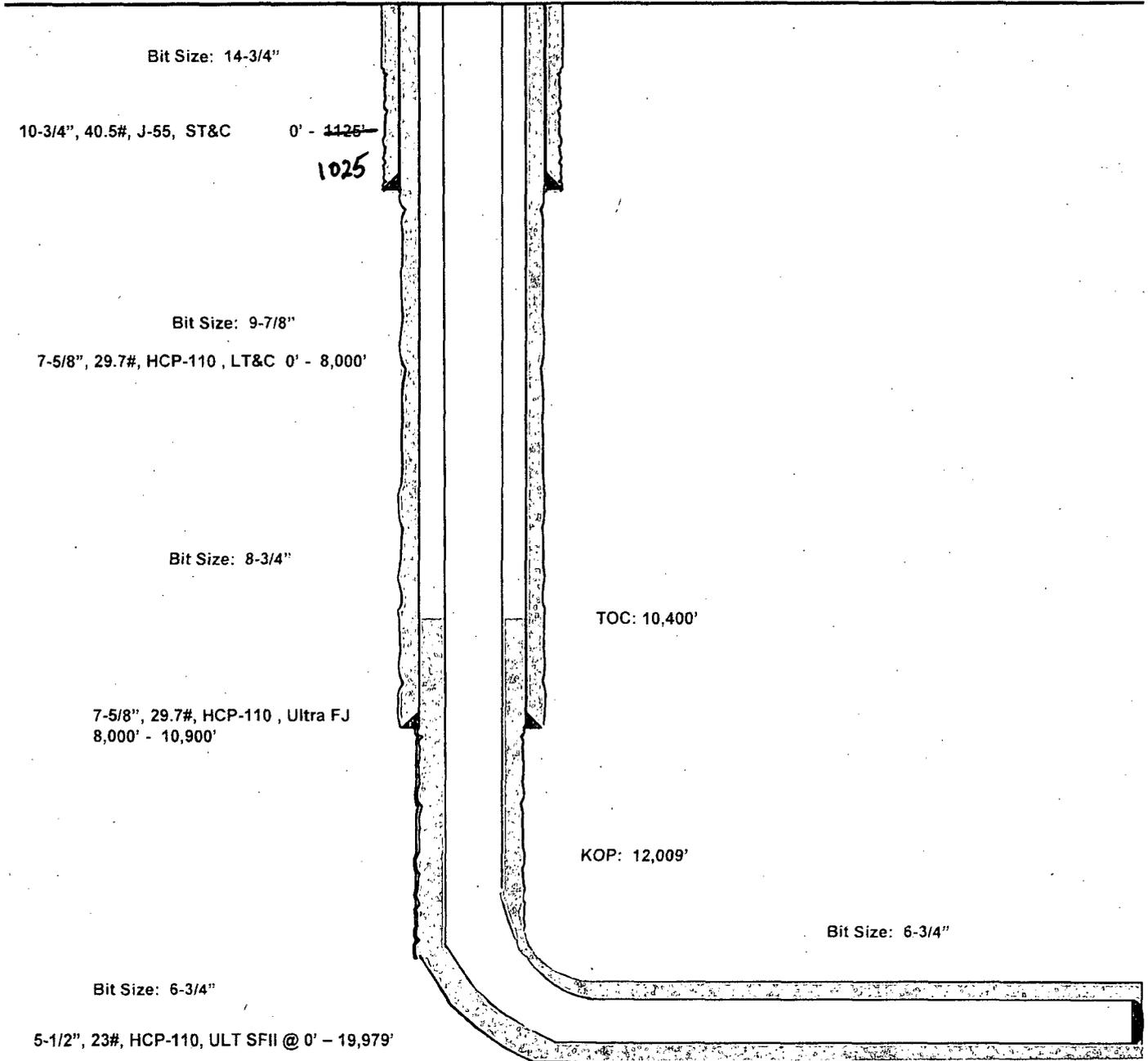
Wellhead drawing Attached.

Whirling Wind 11 Fed Com #704H

856' FSL  
2422' FEL  
Section 11  
T-26-S, R-33-E

Lea County, New Mexico  
Proposed Wellbore  
Revised 4/7/16  
API: 30-025-\*\*\*\*\*

KB: 3,374'  
GL: 3,344'



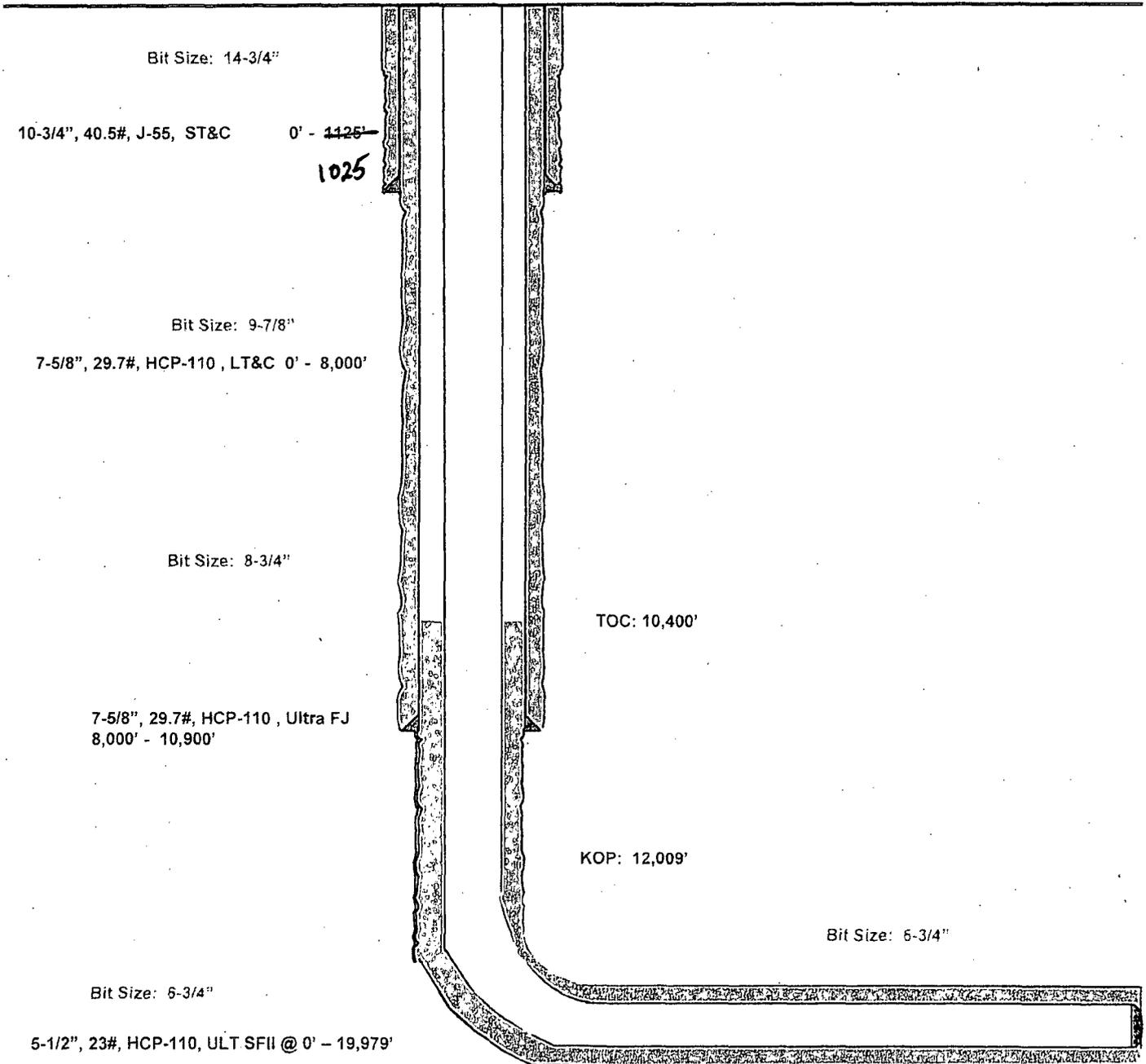
Lateral: 19,979' MD, 12,495' TVD  
Upper Most Perf:  
330' FSL & 2310' FEL Sec. 11  
Lower Most Perf:  
2310' FSL & 2310' FWL Sec. 2  
BH Location: 2410' FSL & 2310' FEL  
Section 2  
T-26-S, R-33-E

Whirling Wind 11 Fed Com #704H

856' FSL  
2422' FEL  
Section 11  
T-26-S, R-33-E

Lea County, New Mexico  
Proposed Wellbore  
Revised 4/7/16  
API: 30-025-\*\*\*\*\*

KB: 3,374'  
GL: 3,344'



Lateral: 19,979' MD, 12,495' TVD  
Upper Most Perf:  
330' FSL & 2310' FEL Sec. 11  
Lower Most Perf:  
2310' FSL & 2310' FWL Sec. 2  
BH Location: 2410' FSL & 2310' FEL  
Section 2  
T-26-S, R-33-E



**PROJECT DETAILS: Lea County, NM (NAD 27 NME)**

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: New Mexico East 3001  
 System Datum: Mean Sea Level



Azimuths to Grid North  
 True North: -0.42°  
 Magnetic North: 6.60°  
 Magnetic Field  
 Strength: 47924.9snT  
 Dip Angle: 59.92°  
 Date: 8/19/2016  
 Model: IGRF2016

To convert a Magnetic Direction to a Grid Direction, Add 6.60°  
 To convert a Magnetic Direction to a True Direction, Add 7.02° East  
 To convert a True Direction to a Grid Direction, Subtract 0.42°

Lea County, NM (NAD 27 NME)  
**Whirling Wind 11 Fed Com #704H**  
**H&P 415**  
**Plan #0.1**

**WELL DETAILS: #704H**

|      |      |                      |           |                               |                   |      |  |  |  |  |  |
|------|------|----------------------|-----------|-------------------------------|-------------------|------|--|--|--|--|--|
|      |      | Ground Level: 3344.0 |           | KB = 25 @ 3265.0ush (H&P 415) |                   |      |  |  |  |  |  |
| +N-S | +E-W | Northing             | Easting   | Latitude                      | Longitude         | Slot |  |  |  |  |  |
| 0.0  | 0.0  | 38385.00             | 745188.00 | 32° 3' 10.600 N               | 103° 32' 30.897 W |      |  |  |  |  |  |

**SECTION DETAILS**

| Sec | MD      | Inc   | Azi    | TVD     | +N-S   | +E-W  | Dleg  | TFace   | VSect  | Target               |
|-----|---------|-------|--------|---------|--------|-------|-------|---------|--------|----------------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0     | 0.0    | 0.0   | 0.00  | 0.00    | 0.0    |                      |
| 2   | 4500.0  | 0.00  | 0.00   | 4500.0  | 0.0    | 0.0   | 0.00  | 0.00    | 0.0    |                      |
| 3   | 5150.1  | 6.50  | 172.21 | 5148.7  | -36.5  | 5.0   | 1.00  | 172.21  | -36.5  |                      |
| 4   | 12009.5 | 6.50  | 172.21 | 11964.0 | -806.0 | 110.3 | 0.00  | 0.00    | -805.0 |                      |
| 5   | 12813.2 | 90.00 | 359.58 | 12495.0 | -331.5 | 114.6 | 12.00 | -172.58 | -330.5 |                      |
| 6   | 19979.9 | 90.00 | 359.58 | 12495.0 | 6835.0 | 62.0  | 0.00  | 0.00    | 6835.3 | PBHL(WW 11 FC #704H) |

**WELLBORE TARGET DETAILS (MAP CO-ORDINATES)**

| Name                 | TVD     | +N-S   | +E-W  | Northing  | Easting   | Shape |
|----------------------|---------|--------|-------|-----------|-----------|-------|
| FTP(WW 11 FC #704H)  | 12495.0 | -425.0 | 116.0 | 38385.00  | 745235.00 | Point |
| PBHL(WW 11 FC #704H) | 12495.0 | 6835.0 | 62.0  | 390720.00 | 745251.00 | Point |

