Form 3160-3
(June 2015)

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
FEB 13 2019
RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

5. Lease Serial No.
NMNM108503

6. If Indian, Allotee or Tribe Name

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

1a. Type of work: ☑ DRILL ☐ REENTER
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other
1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
CABALLO 23 FED 710H (38451)

2. Name of Operator
EOG RESOURCES INCORPORATED (7377)

9. API Well No.
30-025-45589

3a. Address
1111 Bagby Sky Lobby2 Houston TX 77002

3b. Phone No. *(include area code)*
(713)651-7000

10. Field and Pool, or Exploratory
RED HILLS / WC-025 G-09 S253509D UF

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SESE / 300 FSL / 639 FEL / LAT 32.1095936 / LONG -103.5366624
At proposed prod. zone NESE / 2541 FSL / 810 FEL / LAT 32.1302724 / LONG -103.5372226

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 23 / T25S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*
20 miles

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)
100 feet

16. No of acres in lease
1480

17. Spacing Unit dedicated to this well
480

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

19. Proposed Depth
12453 feet / 20026 feet

20. BLM/BIA Bond No. in file
FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3345 feet

22. Approximate date work will start*
01/01/2019

23. Estimated duration
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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 requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Sarah Mitchell / Ph: (432)848-9133	08/30/2018

Title
Regulatory Agent

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	01/25/2019
Title	Office	
Assistant Field Manager Lands & Minerals	CARLSBAD	

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.

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.

OCD rec 02/13/19

PM

APPROVED WITH CONDITIONS

KA 2/14/19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 01/25/2019

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

1. SHL: SESE / 300 FSL / 639 FEL / TWSP: 25S / RANGE: 33E / SECTION: 23 / LAT: 32.1095936 / LONG: -103.5366624 (TVD: 0 feet, MD: 0 feet)
   PPP: SESE / 100 FSL / 810 FEL / TWSP: 25S / RANGE: 33E / SECTION: 23 / LAT: 32.1090443 / LONG: -103.5372149 (TVD: 12188 feet, MD: 12201 feet)
   BHL: NESE / 2541 FSL / 810 FEL / TWSP: 25S / RANGE: 33E / SECTION: 14 / LAT: 32.1302724 / LONG: -103.5372226 (TVD: 12453 feet, MD: 20026 feet)

BLM Point of Contact

Name: Tenille Ortiz

Title: Legal Instruments Examiner

Phone: 5752342224

Email: tortiz@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES INCORPORATED
LEASE NO.:	NMNM108503
WELL NAME & NO.:	CABALLO 23 FED 710H
SURFACE HOLE FOOTAGE:	300'/S & 639'/E
BOTTOM HOLE FOOTAGE	2541'/S & 810'/E
LOCATION:	SECTION 23, T25S, R33E, NMPM
COUNTY:	LEA

Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐4 String Area	☐Capitan Reef	☐WIPP

A. Hydrogen Sulfide

1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13 3/8"** surface casing shall be set at approximately **1072'** (a minimum of 25' into the Rustler Anhydrite and above the salt) and cemented to surface.
   a. **If cement does not circulate to surface,** the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of **6 hours** after pumping cement, ideally between 8-10 hours after completing the cement job.
   b. WOC time for a primary cement job will be a minimum of **8 hours** or **500 psi** compressive strength, whichever is greater. This is to include the lead cement.
   c. If cement falls back, remedial cementing will be done prior to drilling out that string.
   d. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.

2. The minimum required fill of cement behind the **9 5/8"** intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **7 5/8"** intermediate casing is:

    - Cement should tie-back at least **200** feet into previous string. If cement does not circulate see B.1.a, c-d above.

4. The minimum required fill of cement behind the **5-1/2"** production casing is:

    - Cement should tie-back at least **200** feet into previous string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. **Option 1:**

    i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) shall be **10,000 (10M)** psi. **Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi).**

    Option 2:

    Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi).**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed

GENERAL REQUIREMENTS

1. The BLM is to be notified in advance for a representative to witness:

   a. Spudding well (minimum of 24 hours)
   b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
   c. BOPE tests (minimum of 4 hours)

   ☒ Chaves and Roosevelt Counties
   Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
   During office hours call (575) 627-0272.
   After office hours call (575)

   ☒ Eddy County
   Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

   ☒ Lea County
   Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log (one log per well pad is acceptable) run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
   b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
   c. Manufacturer representative shall install the test plug for the initial BOP test.
   d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
   e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.

g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

1. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

2. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG Resources Incorporated
LEASE NO.:	NMNM108503
WELL NAME & NO.:	Caballo 23 Fed 710H
SURFACE HOLE FOOTAGE:	300'/S & 639'/E
BOTTOM HOLE FOOTAGE	2541'/S & 810'/E
LOCATION:	Section 23, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

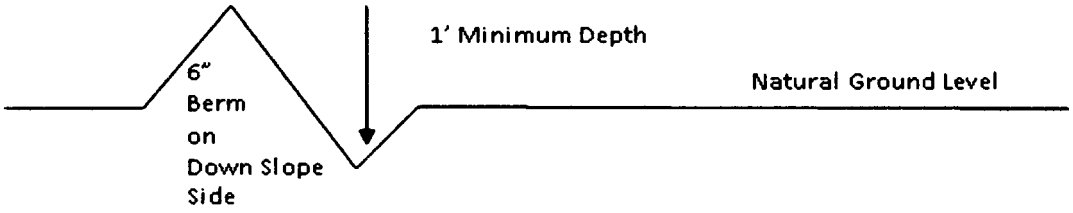
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps 1. Salvage topsoil 2. Construct road 3. Redistribute topsoil 4. Revegetate slopes

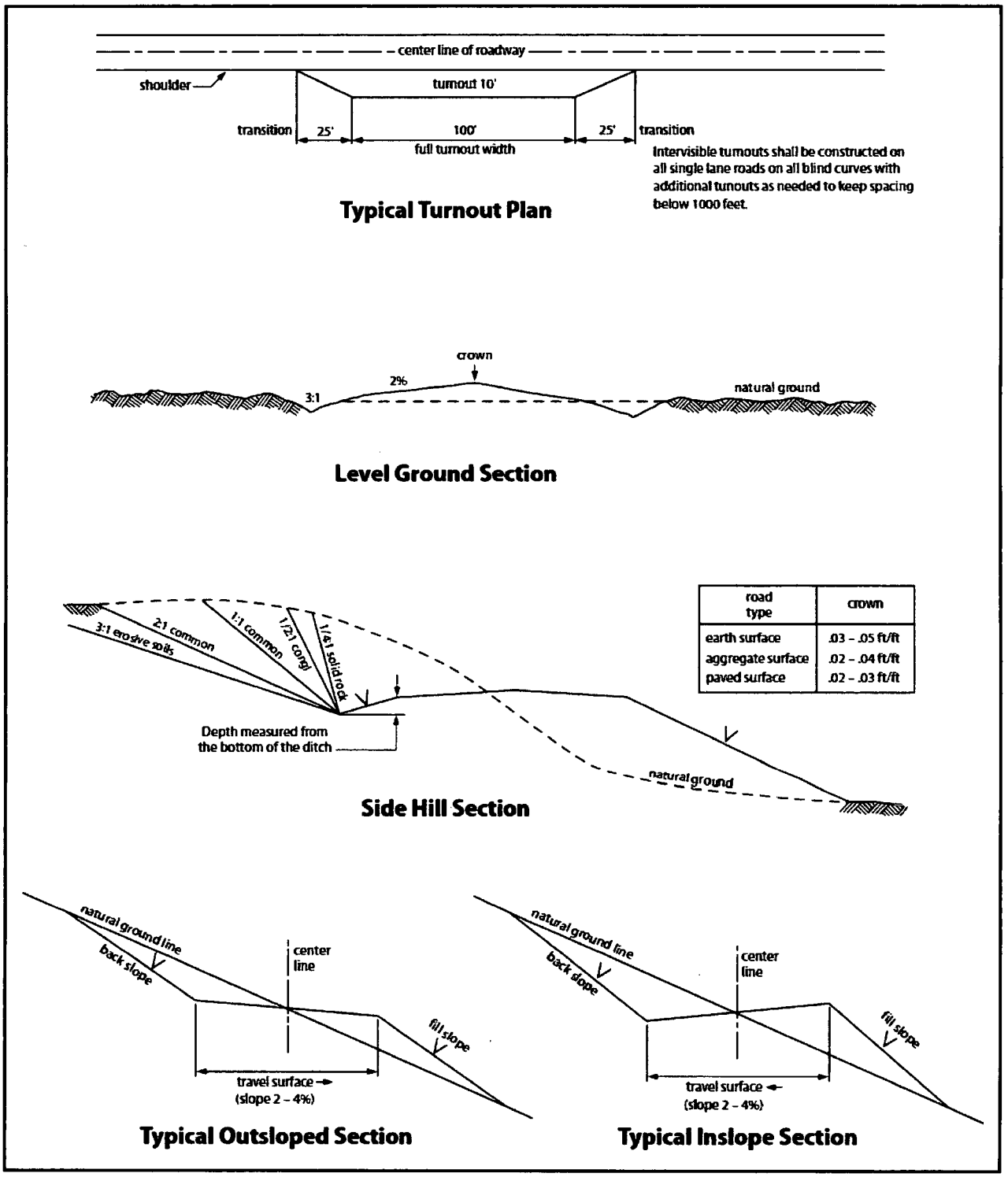


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
(X) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 01/25/2019

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

01/29/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Sarah Mitchell **Signed on:** 08/30/2018

Title: Regulatory Agent

Street Address: 5509 Champions Drive

City: Midland **State:** TX **Zip:** 79702

Phone: (432)848-9133

Email address: sarah_mitchell@eogresources.com

Field Representative

Representative Name: James Barwis

Street Address: 5509 Champions Drive

City: Midland **State:** TX **Zip:** 79706

Phone: (432)425-1204

Email address: james_barwis@eogresources.com

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

01/29/2019

APD ID: 10400033183 **Submission Date:** 08/30/2018

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400033183 **Tie to previous NOS?** **Submission Date:** 08/30/2018

BLM Office: CARLSBAD **User:** Sarah Mitchell **Title:** Regulatory Agent

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM108503 **Lease Acres:** 1480

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO **APD Operator:** EOG RESOURCES INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED

Operator Address: 1111 Bagby Sky Lobby2 **Zip:** 77002

Operator PO Box:

Operator City: Houston **State:** TX

Operator Phone: (713)651-7000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: CABALLO 23 FED **Well Number:** 710H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** RED HILLS **Pool Name:** WC-025 G-09 S253509D UPPER WC

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** CABALLO 23 FED **Number:** 710H/711H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 440 FT **Distance to lease line:** 100 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: Caballo_23_Fed_710H_Signed_C_102_20180830103205.pdf

Well work start Date: 01/01/2019 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

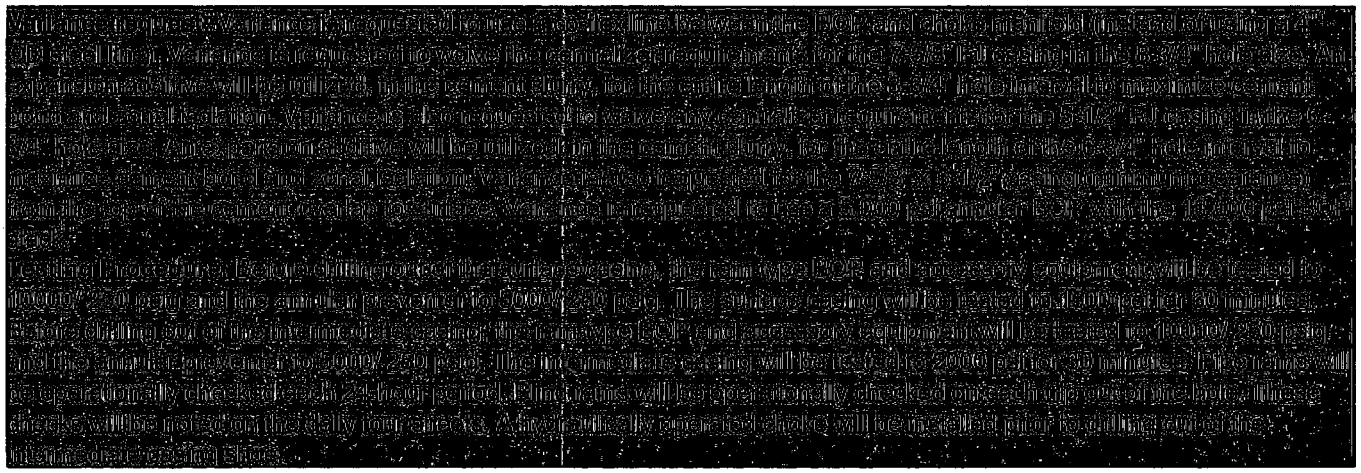
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	300	FSL	639	FEL	25S	33E	23	Aliquot SESE	32.1095936	-103.5366624	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 108503	3345	0	0
KOP Leg #1	50	FSL	810	FEL	25S	33E	23	Aliquot SESE	32.1089068	-103.537215	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 108503	-8630	11980	11975
PPP Leg #1	100	FSL	810	FEL	25S	33E	23	Aliquot SESE	32.1090443	-103.5372149	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 108503	-8843	12201	12188

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Pressure Rating (PSI): 10M **Rating Depth:** 12453

Requesting Variance? YES



Choke Diagram Attachment:

Caballo_23_Fed__710H_10_M_Choke_Manifold_20180830100249.pdf

Co_Flex_Hose_Test_Chart_20190102152322.pdf

Co_Flex_Hose_Certification_20190102152323.pdf

BOP Diagram Attachment:

Caballo_23_Fed__710H_10_M_BOP_Diagram_20180830100317.pdf

EOG_BLM_10M_Annular_Variance___4_String_20190102152447.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1150	0	1150	3345	2195	1150	J-55	54.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4100	0	4100	3345	-755	4100	J-55	40	LTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	INTERMEDIATE	12.25	9.625	NEW	API	N	4100	5100	4100	5100	-755	-1757	1000	HCK-55	40	LTC	1.125	1.25	BUOY	1.6	BUOY	1.6

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
4	PRODUCTION	6.75	5.5	NEW	API	N	0	10900	0	10900	3345	-7555	10900	OTHER	20	OTHER - DWC/C-IS MS	1.125	1.25	BUOY	1.6	BUOY	1.6
5	INTERMEDIATE	8.75	7.625	NEW	API	N	0	11400	0	11400	3345	-8055	11400	HCP-110	29.7	OTHER - FXL	1.125	1.25	BUOY	1.6	BUOY	1.6
6	PRODUCTION	6.75	5.5	NEW	API	N	10900	20026	10900	12453	3345	-9108	9126	OTHER	20	OTHER - VAM SFC	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caballo_23_Fed__710H_BLM_Plan___10_day_letter_12.7.18_20190102152702.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20180830100816.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Casing Attachments

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20180830100832.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caballo_23_Fed__710H_5.500in_20.00_VST_P110EC_DWC_C_IS_MS_20180830100849.pdf

See_previously_attached_Drill_Plan_20180830100849.pdf

Casing ID: 5 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caballo_23_Fed__710H_7.625in_29.70_P110HC_FXL_20180830100910.pdf

See_previously_attached_Drill_Plan_20180830100911.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Casing Attachments

Casing ID: 6 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caballo_23_Fed__710H_5.500in_20.00_VST_P110EC_VAM_SFC_20180830100932.pdf

See_previously_attached_Drill_Plan_20180830100933.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0
SURFACE	Lead		0	1150	600	1.73	13.5	1038	25	Class C	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		1150	1150	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
INTERMEDIATE	Lead		0	5100	1780	2.2	12.7	3916	25	Class C	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
INTERMEDIATE	Tail		5100	5100	200	1.12	16	224	25	Class C	Tail: Class C + 0.13% C-20

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		4600	11400	340	2.72	11.5	924	25	Class C	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,600')
INTERMEDIATE	Tail		11400	11400	210	1.12	16	235	25	Class H	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
PRODUCTION	Lead		10900	20026	950	1.26	14.1	1197	25	Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,900')

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: (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) H2S monitoring and detection equipment will be utilized from surface casing point to TD.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1150	5100	SALT SATURATED	10	10.2							
5100	11400	OIL-BASED MUD	8.7	9.4							

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1150	WATER-BASED MUD	8.6	8.8							
11400	12453	OIL-BASED MUD	10	14							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Open-hole logs are not planned for this well.

List of open and cased hole logs run in the well:

DS

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 9066 **Anticipated Surface Pressure:** 6326.34

Anticipated Bottom Hole Temperature(F): 181

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Caballo_23_Fed__710H_H2S_Plan_Summary_20180830101257.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Caballo_23_Fed__710H_Planning_Report_20180830101317.pdf

Caballo_23_Fed__710H_Wall_Plot_20180830101319.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Caballo_23_Fed__710H_Rig_Layout_20180830101343.pdf

Caballo_23_Fed_Gas_Capture_Plan_20180830101347.pdf

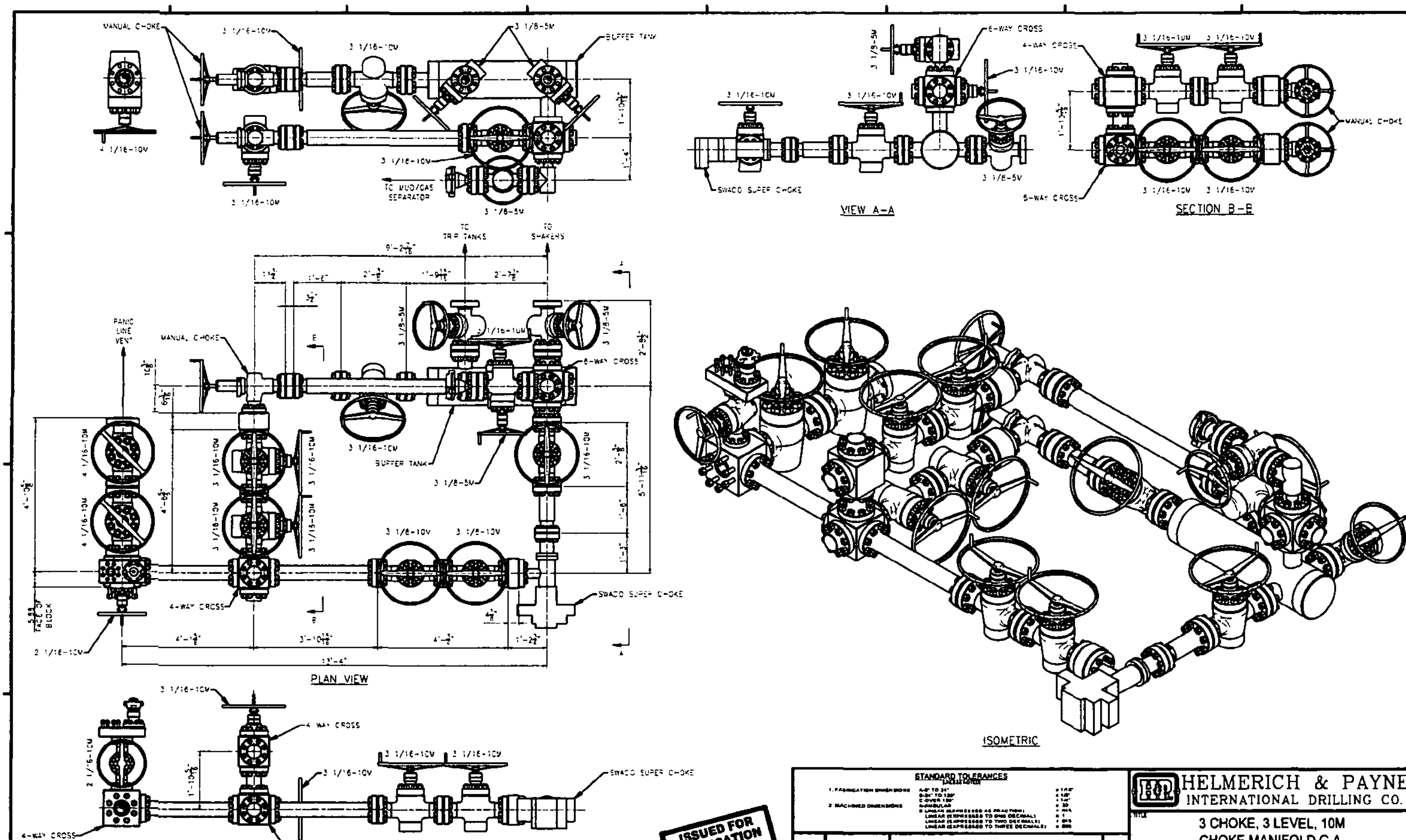
Caballo_23_Fed__710H_Proposed_Wellbore___10_day_letter_12.7.18_20190102152740.pdf

Four_String_Wellhead_Cap_20190102152807.pdf

Caballo_23_Fed__710H_BLM_Plan___10_day_letter_12.7.18_20190102152907.pdf

Other Variance attachment:

EOG_BLM_10M_Annular_Variance___4_String_20190102152921.pdf



ISSUED FOR FABRICATION
February-10-2014
DRAFTSMAN
ENGINEER

PROPRIETARY

THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

STANDARD TOLERANCES
(UNLESS NOTED)

1. FABRICATION DIMENSIONS: A-0" TO 24"; B-24" TO 120"; C-OVER 120"
2. MACHINED DIMENSIONS: A-ANGULAR; B-LINEAR (EXPRESSED AS FRACTION); LINEAR (EXPRESSED TO ONE DECIMAL); LINEAR (EXPRESSED TO TWO DECIMALS); LINEAR (EXPRESSED TO THREE DECIMALS)

REV	DATE	DESCRIPTION	BY

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

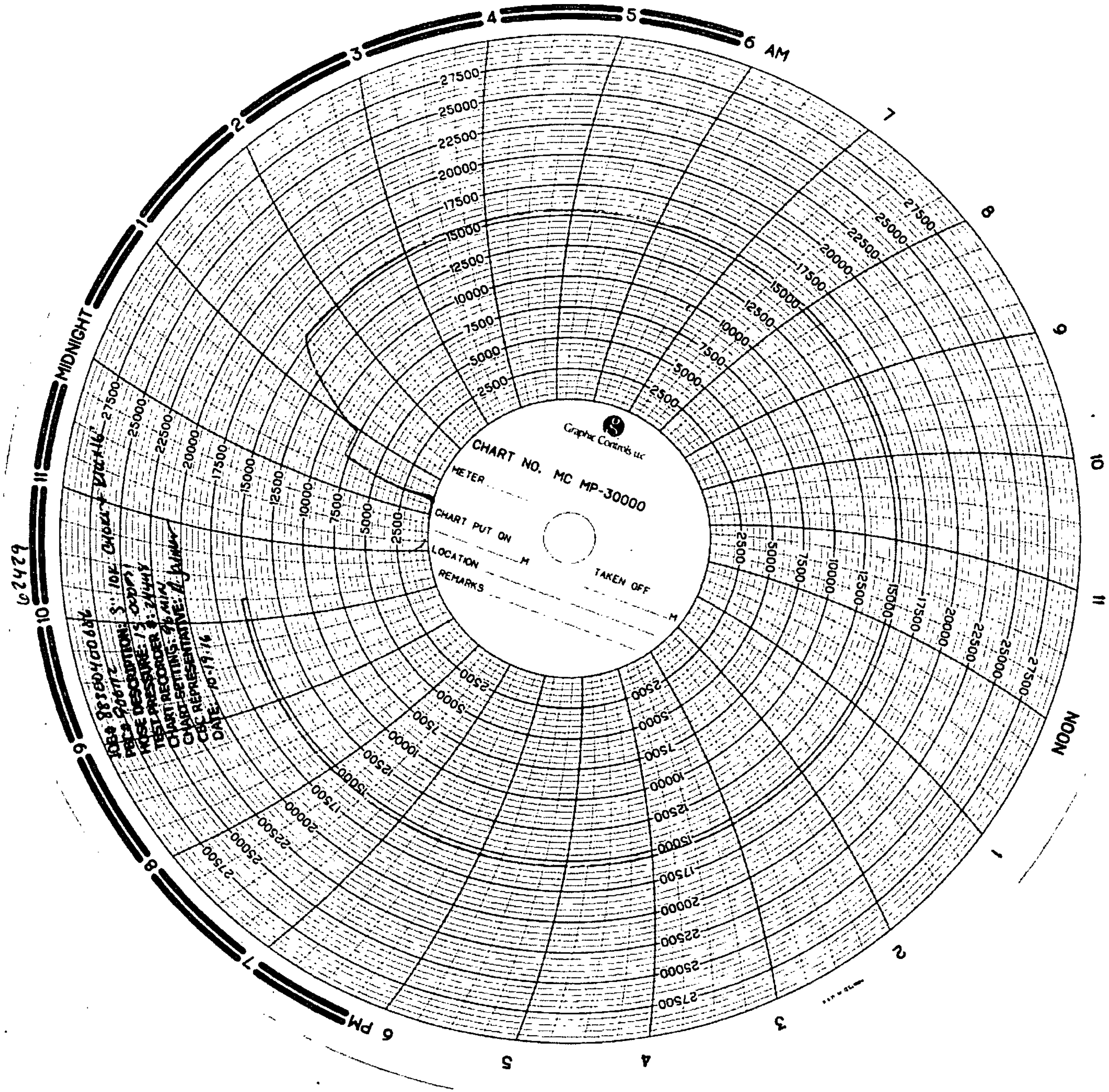
TITLE: 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.

CUSTOMER: H&P

PROJECT:

DRAWN: MWL | DATE: 2/10/2014 | DWG NO.: HP-D1254 | REV.: —

SCALE: 3/4"=1'-0" | SHEET: 1 OF 1



Graphic Controls LLC
CHART NO. MC MP-30000
METER
CHART PUT ON
M
LOCATION
REMARKS
TAKEN OFF
M
6 AM
NOON
6 PM
MIDNIGHT
JOB#
PIECE DESCRIPTION:
HOSE PRESSURE:
TEST PRESSURE:
CHART RECORDING:
CHART SETTING:
CBC REPRESENTATIVE:
DATE:

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	62429	**Date of Manufacture**	05/2012
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/16" 10KPsi API Spec 6A Type 6BX Flange	**End B:** 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX154	**Seal Face:** BX154
Length Before Hydro Test: 16'	**Length After Hydro test:** 16'

Conclusion: Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #62429 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

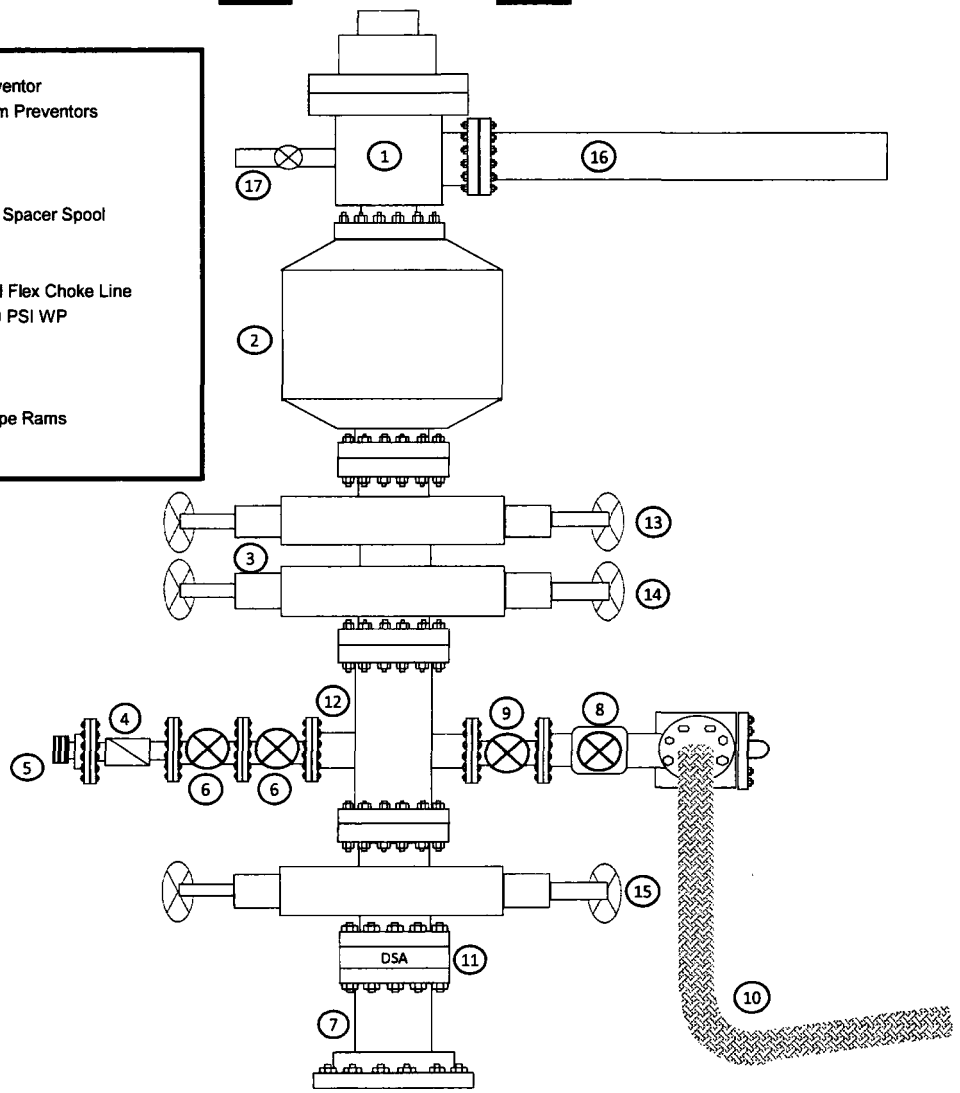
Visual inspection: Every 3 months (or during installation/removal)
Annual: In-situ pressure test
Initial 5 years service: Major inspection
2nd Major inspection: 8 / 10 years of service
(Detailed description of test regime available upon request, ISS-059 Rev 04)

**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Exhibit 1
EOG Resources
10M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 10,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line



10,000 PSI BOP Annular
Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

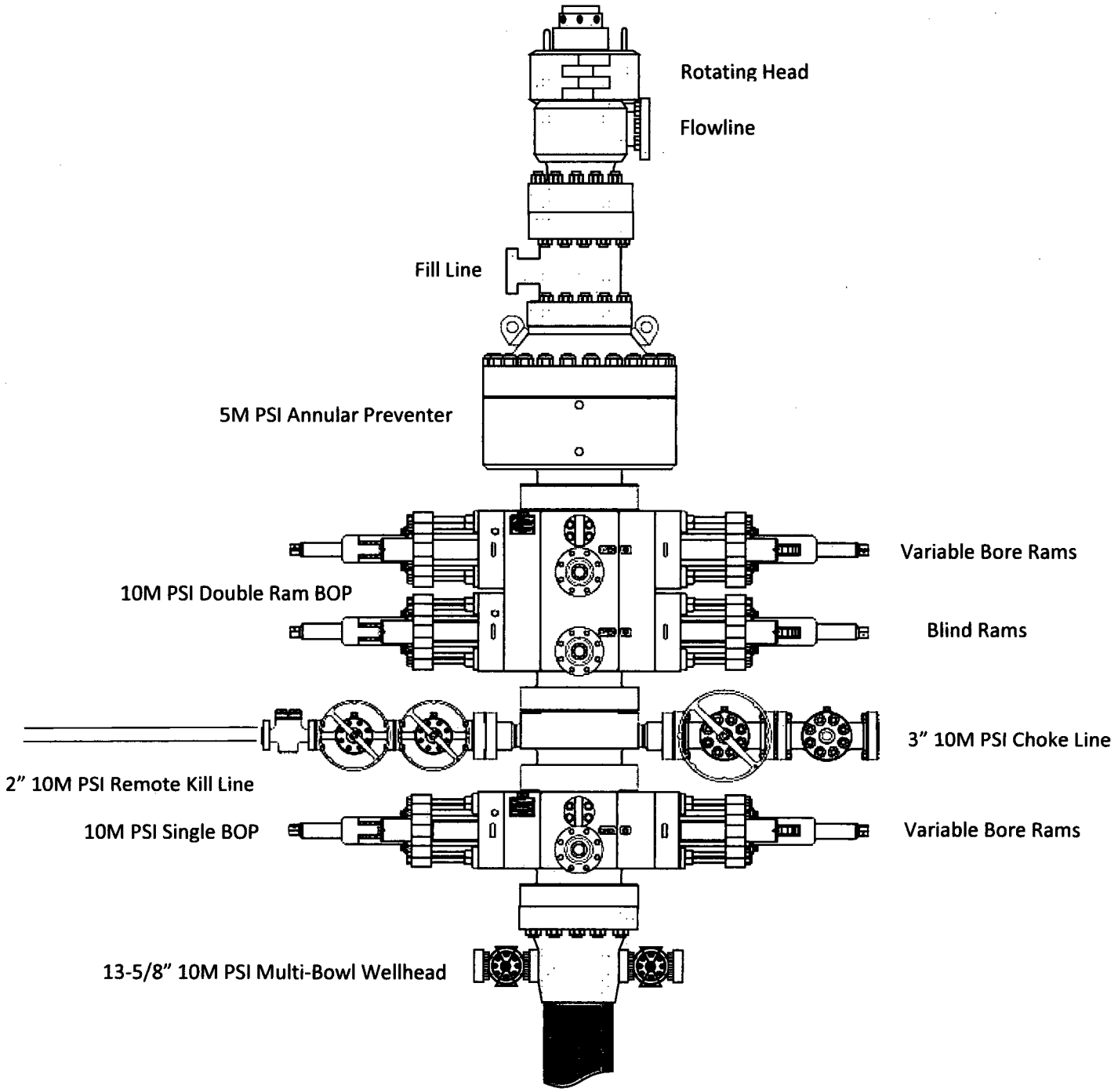
12-1/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	8.000" – 9.625"	Annular	5M	-	-
1st Intermediate casing	9.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

8-3/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	6.750" – 8.000"	Annular	5M	-	-
2nd Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500" – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources
13-5/8" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
    a. Perform flowcheck, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper variable bore rams.
    e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
    f. Confirm shut-in
    g. Notify toolpusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the upper variable bore rams.
    d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP

ii. Pit gain
iii. Time

h. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
   a. Sound alarm (alert crew)
   b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
   c. If impossible to pick up high enough to pull the string clear of the stack:
   d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
   e. Space out drill string with tooljoint just beneath the upper variable bore ram.
   f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
   g. Confirm shut-in
   h. Notify toolpusher/company representative
   i. Read and record the following:
      i. SIDPP and SICP
      ii. Pit gain
      iii. Time
   j. Regroup and identify forward plan

See previously attached Drill Plan

Metal One Corp. *Metal One*	MO-FXL Connection Data Sheet	Page	MCTP
		Date	3-Nov-16
		Rev.	0

MO-FXL

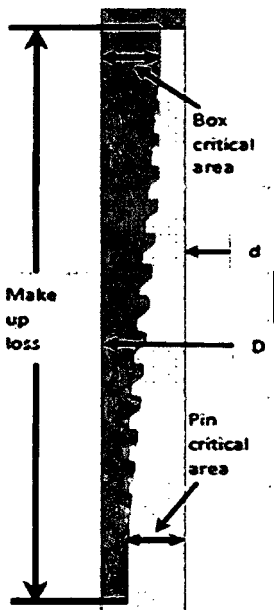
Geometry

Pipe Body

	Imperial		S.I.	
Grade	P110HC *1		P110HC *1	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in²	5,508	mm²
Drift Dia.	6.750	in	171.45	mm

Connection

Box OD (Wt)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make-up Loss	4.219	in	107.16	mm
Box Critical Area	6.774	in²	4,369	mm²
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	15 TPI			



Performance Properties for Pipe Body

M.I.Y.P. *1	10,760	psi	74.21	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body
*1 Based on VSB P110HC (YS=125~140ksi)

Performance Properties for Connection

Min. Compression Yield	747 kips (70% of S.M.Y.S.)
External Pressure	100% of Collapse Strength

Recommended Torque

Opti.	17,200	ft-lb	23,300	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application

See previously attached Drill Plan

See previously attached Drill Plan

EOG RESOURCES, INC.
CABALLO 23 FED NO. 710H

1. GEOLOGIC NAME OF SURFACE FORMATION:
Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,047'
Top of Salt	1,440'
Base of Salt	4,881'
Lamar	5,026'
Bell Canyon	5,167'
Cherry Canyon	6,177'
Brushy Canyon	7,743'
Bone Spring Lime	9,214'
1st Bone Spring Sand	10,239'
2nd Bone Spring Shale	10,436'
2nd Bone Spring Sand	10,764'
3rd Bone Spring Carb	11,284'
3rd Bone Spring Sand	11,869'
Wolfcamp	12,310'
TD	12,453'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,177'	Oil
Brushy Canyon	7,743'	Oil
1st Bone Spring Sand	10,239'	Oil
2nd Bone Spring Shale	10,436'	Oil
2nd Bone Spring Sand	10,764'	Oil
3rd Bone Spring Carb	11,284'	Oil
3rd Bone Spring Sand	11,869'	Oil
Wolfcamp	12,310'	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 13.375" casing at 1,135' and circulating cement back to surface.

EOG RESOURCES, INC.
CABALLO 23 FED NO. 710H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 – 1,150'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0 – 4,100'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,100' – 5,100'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 – 11,400'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,900'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,900'- 20,026'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ 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.

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:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,150'	600	13.5	1.73	9.13	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	6.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
9-5/8" 5,100'	1780	12.7	2.20	11.64	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	200	16.0	1.12	4.75	Tail: Class C + 0.13% C-20
7-5/8" 11,400'	340	11.5	2.72	15.70	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,600')
	210	16.0	1.12	4.74	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
5-1/2" 20,026'	950	14.1	1.26	5.80	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,900')

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.

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).

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 (5,000-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.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5,000/ 250 psig.

Before drilling out of the intermediate casing (both the 9-5/8" and 7-5/8" strings), the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5000/ 250 psig.

Pipe rams and 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 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 11,400'	Oil Base	8.7-9.4	58-68	N/c - 6
11,400' – 20,026' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

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.

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_2S 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.

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

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9066 psig (based on 14.0 ppg MW). 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.

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.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 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 10,000 psi.

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.

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.

See previously attached Drill Plan

See previously attached Drill Plan

EOG RESOURCES, INC.
CABALLO 23 FED #710H

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
CABALLO 23 FED #710H

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
CABALLO 23 FED #710H

Emergency Assistance Telephone List

PUBLIC SAFETY:	**911 or**
Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.	
EOG / Midland	Office (432) 686-3600

Company Drilling Consultants:	
Jett Dueitt	Cell (432) 230-4840
Blake Burney	

Drilling Engineer	
Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256

Drilling Manager	
Aj Dach	Office (432) 686-3751
	Cell (817) 480-1167

Drilling Superintendent	
Todd Hamilton	Office (432) 848-9029
	Cell (210) 413-9569

H&P Drilling	
H&P Drilling	Office (432) 563-5757
H&P 415 Drilling Rig	Rig (432) 230-4840

Tool Pusher:	
Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety	
Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251

eog resources

EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Caballo 23 Fed Com
#710H

OH

Plan: Plan #0.1

Standard Planning Report

15 August, 2018

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #710H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3370.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Caballo 23 Fed Com				
Site Position:		**Northing:**	404,685.00 usft	**Latitude:**	32° 6' 36.494 N
From:	Map	**Easting:**	783,786.00 usft	**Longitude:**	103° 33' 1.024 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.42 °

Well	#710H				
Well Position	**+N/-S**	-167.0 usft	**Northing:**	404,518.00 usft	**Latitude:**	32° 6' 34.536 N
	+E/-W	4,219.0 usft	**Easting:**	788,005.00 usft	**Longitude:**	103° 32' 11.988 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,345.0 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	5/17/2018	6.83	59.95	47,780.36430225

Design	Plan #0.1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	337.55	

Plan Survey Tool Program **Date** 8/15/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,026.4	Plan #0.1 (OH)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,097.6	1.95	213.95	3,097.6	-1.4	-0.9	2.00	2.00	0.00	213.95	
11,883.0	1.95	213.95	11,877.9	-249.6	-168.1	0.00	0.00	0.00	0.00	
11,980.6	0.00	0.00	11,975.5	-251.0	-169.0	2.00	-2.00	0.00	180.00	KOP (Caballo 23 Fed
12,730.6	90.00	359.56	12,453.0	226.4	-172.7	12.00	12.00	-0.06	359.56	
20,026.4	90.00	359.56	12,453.0	7,522.0	-229.0	0.00	0.00	0.00	0.00	PBHL (Caballo 23 Fe

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #710H
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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,097.6	1.95	213.95	3,097.6	-1.4	-0.9	-0.9	2.00	2.00	0.00
3,100.0	1.95	213.95	3,100.0	-1.4	-1.0	-1.0	0.00	0.00	0.00
3,200.0	1.95	213.95	3,199.9	-4.3	-2.9	-2.8	0.00	0.00	0.00
3,300.0	1.95	213.95	3,299.9	-7.1	-4.8	-4.7	0.00	0.00	0.00
3,400.0	1.95	213.95	3,399.8	-9.9	-6.7	-6.6	0.00	0.00	0.00
3,500.0	1.95	213.95	3,499.7	-12.7	-8.6	-8.5	0.00	0.00	0.00
3,600.0	1.95	213.95	3,599.7	-15.6	-10.5	-10.4	0.00	0.00	0.00
3,700.0	1.95	213.95	3,699.6	-18.4	-12.4	-12.3	0.00	0.00	0.00
3,800.0	1.95	213.95	3,799.6	-21.2	-14.3	-14.2	0.00	0.00	0.00
3,900.0	1.95	213.95	3,899.5	-24.1	-16.2	-16.0	0.00	0.00	0.00
4,000.0	1.95	213.95	3,999.5	-26.9	-18.1	-17.9	0.00	0.00	0.00
4,100.0	1.95	213.95	4,099.4	-29.7	-20.0	-19.8	0.00	0.00	0.00
4,200.0	1.95	213.95	4,199.3	-32.5	-21.9	-21.7	0.00	0.00	0.00
4,300.0	1.95	213.95	4,299.3	-35.4	-23.8	-23.6	0.00	0.00	0.00
4,400.0	1.95	213.95	4,399.2	-38.2	-25.7	-25.5	0.00	0.00	0.00
4,500.0	1.95	213.95	4,499.2	-41.0	-27.6	-27.4	0.00	0.00	0.00
4,600.0	1.95	213.95	4,599.1	-43.8	-29.5	-29.2	0.00	0.00	0.00
4,700.0	1.95	213.95	4,699.1	-46.7	-31.4	-31.1	0.00	0.00	0.00
4,800.0	1.95	213.95	4,799.0	-49.5	-33.3	-33.0	0.00	0.00	0.00
4,900.0	1.95	213.95	4,898.9	-52.3	-35.2	-34.9	0.00	0.00	0.00
5,000.0	1.95	213.95	4,998.9	-55.1	-37.1	-36.8	0.00	0.00	0.00
5,100.0	1.95	213.95	5,098.8	-58.0	-39.0	-38.7	0.00	0.00	0.00
5,200.0	1.95	213.95	5,198.8	-60.8	-40.9	-40.5	0.00	0.00	0.00

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Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	1.95	213.95	5,298.7	-63.6	-42.8	-42.4	0.00	0.00	0.00
5,400.0	1.95	213.95	5,398.6	-66.4	-44.7	-44.3	0.00	0.00	0.00
5,500.0	1.95	213.95	5,498.6	-69.3	-46.6	-46.2	0.00	0.00	0.00
5,600.0	1.95	213.95	5,598.5	-72.1	-48.5	-48.1	0.00	0.00	0.00
5,700.0	1.95	213.95	5,698.5	-74.9	-50.4	-50.0	0.00	0.00	0.00
5,800.0	1.95	213.95	5,798.4	-77.7	-52.3	-51.9	0.00	0.00	0.00
5,900.0	1.95	213.95	5,898.4	-80.6	-54.2	-53.7	0.00	0.00	0.00
6,000.0	1.95	213.95	5,998.3	-83.4	-56.1	-55.6	0.00	0.00	0.00
6,100.0	1.95	213.95	6,098.2	-86.2	-58.0	-57.5	0.00	0.00	0.00
6,200.0	1.95	213.95	6,198.2	-89.0	-60.0	-59.4	0.00	0.00	0.00
6,300.0	1.95	213.95	6,298.1	-91.9	-61.9	-61.3	0.00	0.00	0.00
6,400.0	1.95	213.95	6,398.1	-94.7	-63.8	-63.2	0.00	0.00	0.00
6,500.0	1.95	213.95	6,498.0	-97.5	-65.7	-65.0	0.00	0.00	0.00
6,600.0	1.95	213.95	6,597.9	-100.3	-67.6	-66.9	0.00	0.00	0.00
6,700.0	1.95	213.95	6,697.9	-103.2	-69.5	-68.8	0.00	0.00	0.00
6,800.0	1.95	213.95	6,797.8	-106.0	-71.4	-70.7	0.00	0.00	0.00
6,900.0	1.95	213.95	6,897.8	-108.8	-73.3	-72.6	0.00	0.00	0.00
7,000.0	1.95	213.95	6,997.7	-111.6	-75.2	-74.5	0.00	0.00	0.00
7,100.0	1.95	213.95	7,097.7	-114.5	-77.1	-76.4	0.00	0.00	0.00
7,200.0	1.95	213.95	7,197.6	-117.3	-79.0	-78.2	0.00	0.00	0.00
7,300.0	1.95	213.95	7,297.5	-120.1	-80.9	-80.1	0.00	0.00	0.00
7,400.0	1.95	213.95	7,397.5	-122.9	-82.8	-82.0	0.00	0.00	0.00
7,500.0	1.95	213.95	7,497.4	-125.8	-84.7	-83.9	0.00	0.00	0.00
7,600.0	1.95	213.95	7,597.4	-128.6	-86.6	-85.8	0.00	0.00	0.00
7,700.0	1.95	213.95	7,697.3	-131.4	-88.5	-87.7	0.00	0.00	0.00
7,800.0	1.95	213.95	7,797.3	-134.3	-90.4	-89.6	0.00	0.00	0.00
7,900.0	1.95	213.95	7,897.2	-137.1	-92.3	-91.4	0.00	0.00	0.00
8,000.0	1.95	213.95	7,997.1	-139.9	-94.2	-93.3	0.00	0.00	0.00
8,100.0	1.95	213.95	8,097.1	-142.7	-96.1	-95.2	0.00	0.00	0.00
8,200.0	1.95	213.95	8,197.0	-145.6	-98.0	-97.1	0.00	0.00	0.00
8,300.0	1.95	213.95	8,297.0	-148.4	-99.9	-99.0	0.00	0.00	0.00
8,400.0	1.95	213.95	8,396.9	-151.2	-101.8	-100.9	0.00	0.00	0.00
8,500.0	1.95	213.95	8,496.8	-154.0	-103.7	-102.7	0.00	0.00	0.00
8,600.0	1.95	213.95	8,596.8	-156.9	-105.6	-104.6	0.00	0.00	0.00
8,700.0	1.95	213.95	8,696.7	-159.7	-107.5	-106.5	0.00	0.00	0.00
8,800.0	1.95	213.95	8,796.7	-162.5	-109.4	-108.4	0.00	0.00	0.00
8,900.0	1.95	213.95	8,896.6	-165.3	-111.3	-110.3	0.00	0.00	0.00
9,000.0	1.95	213.95	8,996.6	-168.2	-113.2	-112.2	0.00	0.00	0.00
9,100.0	1.95	213.95	9,096.5	-171.0	-115.1	-114.1	0.00	0.00	0.00
9,200.0	1.95	213.95	9,196.4	-173.8	-117.0	-115.9	0.00	0.00	0.00
9,300.0	1.95	213.95	9,296.4	-176.6	-118.9	-117.8	0.00	0.00	0.00
9,400.0	1.95	213.95	9,396.3	-179.5	-120.8	-119.7	0.00	0.00	0.00
9,500.0	1.95	213.95	9,496.3	-182.3	-122.7	-121.6	0.00	0.00	0.00
9,600.0	1.95	213.95	9,596.2	-185.1	-124.6	-123.5	0.00	0.00	0.00
9,700.0	1.95	213.95	9,696.1	-187.9	-126.5	-125.4	0.00	0.00	0.00
9,800.0	1.95	213.95	9,796.1	-190.8	-128.4	-127.2	0.00	0.00	0.00
9,900.0	1.95	213.95	9,896.0	-193.6	-130.3	-129.1	0.00	0.00	0.00
10,000.0	1.95	213.95	9,996.0	-196.4	-132.2	-131.0	0.00	0.00	0.00
10,100.0	1.95	213.95	10,095.9	-199.2	-134.1	-132.9	0.00	0.00	0.00
10,200.0	1.95	213.95	10,195.9	-202.1	-136.1	-134.8	0.00	0.00	0.00
10,300.0	1.95	213.95	10,295.8	-204.9	-138.0	-136.7	0.00	0.00	0.00
10,400.0	1.95	213.95	10,395.7	-207.7	-139.9	-138.6	0.00	0.00	0.00
10,500.0	1.95	213.95	10,495.7	-210.5	-141.8	-140.4	0.00	0.00	0.00
10,600.0	1.95	213.95	10,595.6	-213.4	-143.7	-142.3	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #710H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3370.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,700.0	1.95	213.95	10,695.6	-216.2	-145.6	-144.2	0.00	0.00	0.00
10,800.0	1.95	213.95	10,795.5	-219.0	-147.5	-146.1	0.00	0.00	0.00
10,900.0	1.95	213.95	10,895.5	-221.8	-149.4	-148.0	0.00	0.00	0.00
11,000.0	1.95	213.95	10,995.4	-224.7	-151.3	-149.9	0.00	0.00	0.00
11,100.0	1.95	213.95	11,095.3	-227.5	-153.2	-151.8	0.00	0.00	0.00
11,200.0	1.95	213.95	11,195.3	-230.3	-155.1	-153.6	0.00	0.00	0.00
11,300.0	1.95	213.95	11,295.2	-233.1	-157.0	-155.5	0.00	0.00	0.00
11,400.0	1.95	213.95	11,395.2	-236.0	-158.9	-157.4	0.00	0.00	0.00
11,500.0	1.95	213.95	11,495.1	-238.8	-160.8	-159.3	0.00	0.00	0.00
11,600.0	1.95	213.95	11,595.0	-241.6	-162.7	-161.2	0.00	0.00	0.00
11,700.0	1.95	213.95	11,695.0	-244.4	-164.6	-163.1	0.00	0.00	0.00
11,800.0	1.95	213.95	11,794.9	-247.3	-166.5	-164.9	0.00	0.00	0.00
11,883.0	1.95	213.95	11,877.9	-249.6	-168.1	-166.5	0.00	0.00	0.00
11,900.0	1.61	213.95	11,894.9	-250.1	-168.4	-166.8	2.00	-2.00	0.00
11,980.6	0.00	0.00	11,975.5	-251.0	-169.0	-167.4	2.00	-2.00	0.00
KOP (Caballo 23 Fed Com #710H)									
12,000.0	2.32	359.56	11,994.9	-250.6	-169.0	-167.1	12.00	12.00	0.00
12,025.0	5.32	359.56	12,019.8	-248.9	-169.0	-165.5	12.00	12.00	0.00
12,050.0	8.32	359.56	12,044.6	-246.0	-169.0	-162.8	12.00	12.00	0.00
12,075.0	11.32	359.56	12,069.3	-241.7	-169.1	-158.8	12.00	12.00	0.00
12,100.0	14.32	359.56	12,093.6	-236.2	-169.1	-153.7	12.00	12.00	0.00
12,125.0	17.32	359.56	12,117.7	-229.3	-169.2	-147.4	12.00	12.00	0.00
12,150.0	20.32	359.56	12,141.3	-221.3	-169.2	-139.9	12.00	12.00	0.00
12,175.0	23.32	359.56	12,164.5	-212.0	-169.3	-131.3	12.00	12.00	0.00
12,200.0	26.32	359.56	12,187.2	-201.5	-169.4	-121.5	12.00	12.00	0.00
12,225.0	29.32	359.56	12,209.3	-189.8	-169.5	-110.7	12.00	12.00	0.00
12,250.0	32.32	359.56	12,230.8	-177.0	-169.6	-98.8	12.00	12.00	0.00
12,275.0	35.32	359.56	12,251.6	-163.1	-169.7	-85.9	12.00	12.00	0.00
12,300.0	38.32	359.56	12,271.6	-148.1	-169.8	-72.0	12.00	12.00	0.00
12,325.0	41.32	359.56	12,290.8	-132.1	-169.9	-57.2	12.00	12.00	0.00
12,350.0	44.32	359.56	12,309.1	-115.1	-170.0	-41.4	12.00	12.00	0.00
12,375.0	47.32	359.56	12,326.5	-97.2	-170.2	-24.8	12.00	12.00	0.00
12,380.1	47.94	359.56	12,330.0	-93.4	-170.2	-21.3	12.00	12.00	0.00
FTP (Caballo 23 Fed Com #710H)									
12,400.0	50.32	359.56	12,343.0	-78.4	-170.3	-7.4	12.00	12.00	0.00
12,425.0	53.32	359.56	12,358.4	-58.7	-170.5	10.8	12.00	12.00	0.00
12,450.0	56.32	359.56	12,372.8	-38.3	-170.6	29.8	12.00	12.00	0.00
12,475.0	59.32	359.56	12,386.1	-17.1	-170.8	49.4	12.00	12.00	0.00
12,500.0	62.32	359.56	12,398.3	4.7	-171.0	69.6	12.00	12.00	0.00
12,525.0	65.32	359.56	12,409.4	27.1	-171.1	90.4	12.00	12.00	0.00
12,550.0	68.32	359.56	12,419.2	50.1	-171.3	111.7	12.00	12.00	0.00
12,575.0	71.32	359.56	12,427.8	73.6	-171.5	133.5	12.00	12.00	0.00
12,600.0	74.32	359.56	12,435.2	97.4	-171.7	155.6	12.00	12.00	0.00
12,625.0	77.32	359.56	12,441.3	121.7	-171.9	178.1	12.00	12.00	0.00
12,650.0	80.32	359.56	12,446.2	146.2	-172.1	200.8	12.00	12.00	0.00
12,675.0	83.32	359.56	12,449.7	170.9	-172.3	223.8	12.00	12.00	0.00
12,700.0	86.32	359.56	12,452.0	195.8	-172.4	246.9	12.00	12.00	0.00
12,725.0	89.32	359.56	12,452.9	220.8	-172.6	270.0	12.00	12.00	0.00
12,730.6	90.00	359.56	12,453.0	226.4	-172.7	275.2	12.00	12.00	0.00
12,800.0	90.00	359.56	12,453.0	295.8	-173.2	339.5	0.00	0.00	0.00
12,900.0	90.00	359.56	12,453.0	395.8	-174.0	432.3	0.00	0.00	0.00
13,000.0	90.00	359.56	12,453.0	495.8	-174.8	525.0	0.00	0.00	0.00
13,100.0	90.00	359.56	12,453.0	595.8	-175.5	617.7	0.00	0.00	0.00
13,200.0	90.00	359.56	12,453.0	695.8	-176.3	710.4	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #710H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3370.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,300.0	90.00	359.56	12,453.0	795.8	-177.1	803.1	0.00	0.00	0.00
13,400.0	90.00	359.56	12,453.0	895.8	-177.9	895.8	0.00	0.00	0.00
13,500.0	90.00	359.56	12,453.0	995.8	-178.6	988.5	0.00	0.00	0.00
13,600.0	90.00	359.56	12,453.0	1,095.8	-179.4	1,081.2	0.00	0.00	0.00
13,700.0	90.00	359.56	12,453.0	1,195.8	-180.2	1,174.0	0.00	0.00	0.00
13,800.0	90.00	359.56	12,453.0	1,295.8	-180.9	1,266.7	0.00	0.00	0.00
13,900.0	90.00	359.56	12,453.0	1,395.8	-181.7	1,359.4	0.00	0.00	0.00
14,000.0	90.00	359.56	12,453.0	1,495.8	-182.5	1,452.1	0.00	0.00	0.00
14,100.0	90.00	359.56	12,453.0	1,595.8	-183.3	1,544.8	0.00	0.00	0.00
14,200.0	90.00	359.56	12,453.0	1,695.8	-184.0	1,637.5	0.00	0.00	0.00
14,300.0	90.00	359.56	12,453.0	1,795.8	-184.8	1,730.2	0.00	0.00	0.00
14,400.0	90.00	359.56	12,453.0	1,895.8	-185.6	1,822.9	0.00	0.00	0.00
14,500.0	90.00	359.56	12,453.0	1,995.8	-186.3	1,915.6	0.00	0.00	0.00
14,600.0	90.00	359.56	12,453.0	2,095.8	-187.1	2,008.4	0.00	0.00	0.00
14,700.0	90.00	359.56	12,453.0	2,195.8	-187.9	2,101.1	0.00	0.00	0.00
14,800.0	90.00	359.56	12,453.0	2,295.8	-188.7	2,193.8	0.00	0.00	0.00
14,900.0	90.00	359.56	12,453.0	2,395.7	-189.4	2,286.5	0.00	0.00	0.00
15,000.0	90.00	359.56	12,453.0	2,495.7	-190.2	2,379.2	0.00	0.00	0.00
15,100.0	90.00	359.56	12,453.0	2,595.7	-191.0	2,471.9	0.00	0.00	0.00
15,200.0	90.00	359.56	12,453.0	2,695.7	-191.7	2,564.6	0.00	0.00	0.00
15,300.0	90.00	359.56	12,453.0	2,795.7	-192.5	2,657.3	0.00	0.00	0.00
15,400.0	90.00	359.56	12,453.0	2,895.7	-193.3	2,750.1	0.00	0.00	0.00
15,500.0	90.00	359.56	12,453.0	2,995.7	-194.1	2,842.8	0.00	0.00	0.00
15,600.0	90.00	359.56	12,453.0	3,095.7	-194.8	2,935.5	0.00	0.00	0.00
15,700.0	90.00	359.56	12,453.0	3,195.7	-195.6	3,028.2	0.00	0.00	0.00
15,800.0	90.00	359.56	12,453.0	3,295.7	-196.4	3,120.9	0.00	0.00	0.00
15,900.0	90.00	359.56	12,453.0	3,395.7	-197.1	3,213.6	0.00	0.00	0.00
16,000.0	90.00	359.56	12,453.0	3,495.7	-197.9	3,306.3	0.00	0.00	0.00
16,100.0	90.00	359.56	12,453.0	3,595.7	-198.7	3,399.0	0.00	0.00	0.00
16,200.0	90.00	359.56	12,453.0	3,695.7	-199.5	3,491.7	0.00	0.00	0.00
16,300.0	90.00	359.56	12,453.0	3,795.7	-200.2	3,584.5	0.00	0.00	0.00
16,400.0	90.00	359.56	12,453.0	3,895.7	-201.0	3,677.2	0.00	0.00	0.00
16,500.0	90.00	359.56	12,453.0	3,995.7	-201.8	3,769.9	0.00	0.00	0.00
16,600.0	90.00	359.56	12,453.0	4,095.7	-202.6	3,862.6	0.00	0.00	0.00
16,700.0	90.00	359.56	12,453.0	4,195.7	-203.3	3,955.3	0.00	0.00	0.00
16,800.0	90.00	359.56	12,453.0	4,295.7	-204.1	4,048.0	0.00	0.00	0.00
16,900.0	90.00	359.56	12,453.0	4,395.7	-204.9	4,140.7	0.00	0.00	0.00
17,000.0	90.00	359.56	12,453.0	4,495.7	-205.6	4,233.4	0.00	0.00	0.00
17,100.0	90.00	359.56	12,453.0	4,595.7	-206.4	4,326.2	0.00	0.00	0.00
17,200.0	90.00	359.56	12,453.0	4,695.7	-207.2	4,418.9	0.00	0.00	0.00
17,300.0	90.00	359.56	12,453.0	4,795.7	-208.0	4,511.6	0.00	0.00	0.00
17,400.0	90.00	359.56	12,453.0	4,895.7	-208.7	4,604.3	0.00	0.00	0.00
17,500.0	90.00	359.56	12,453.0	4,995.7	-209.5	4,697.0	0.00	0.00	0.00
17,600.0	90.00	359.56	12,453.0	5,095.7	-210.3	4,789.7	0.00	0.00	0.00
17,700.0	90.00	359.56	12,453.0	5,195.7	-211.0	4,882.4	0.00	0.00	0.00
17,800.0	90.00	359.56	12,453.0	5,295.7	-211.8	4,975.1	0.00	0.00	0.00
17,900.0	90.00	359.56	12,453.0	5,395.7	-212.6	5,067.9	0.00	0.00	0.00
18,000.0	90.00	359.56	12,453.0	5,495.7	-213.4	5,160.6	0.00	0.00	0.00
18,100.0	90.00	359.56	12,453.0	5,595.7	-214.1	5,253.3	0.00	0.00	0.00
18,200.0	90.00	359.56	12,453.0	5,695.7	-214.9	5,346.0	0.00	0.00	0.00
18,300.0	90.00	359.56	12,453.0	5,795.6	-215.7	5,438.7	0.00	0.00	0.00
18,400.0	90.00	359.56	12,453.0	5,895.6	-216.4	5,531.4	0.00	0.00	0.00
18,500.0	90.00	359.56	12,453.0	5,995.6	-217.2	5,624.1	0.00	0.00	0.00
18,600.0	90.00	359.56	12,453.0	6,095.6	-218.0	5,716.8	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #710H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3370.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3370.0usft
Site:	Caballo 23 Fed Com	**North Reference:**	Grid
Well:	#710H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,700.0	90.00	359.56	12,453.0	6,195.6	-218.8	5,809.5	0.00	0.00	0.00
18,800.0	90.00	359.56	12,453.0	6,295.6	-219.5	5,902.3	0.00	0.00	0.00
18,900.0	90.00	359.56	12,453.0	6,395.6	-220.3	5,995.0	0.00	0.00	0.00
19,000.0	90.00	359.56	12,453.0	6,495.6	-221.1	6,087.7	0.00	0.00	0.00
19,100.0	90.00	359.56	12,453.0	6,595.6	-221.8	6,180.4	0.00	0.00	0.00
19,200.0	90.00	359.56	12,453.0	6,695.6	-222.6	6,273.1	0.00	0.00	0.00
19,300.0	90.00	359.56	12,453.0	6,795.6	-223.4	6,365.8	0.00	0.00	0.00
19,400.0	90.00	359.56	12,453.0	6,895.6	-224.2	6,458.5	0.00	0.00	0.00
19,500.0	90.00	359.56	12,453.0	6,995.6	-224.9	6,551.2	0.00	0.00	0.00
19,600.0	90.00	359.56	12,453.0	7,095.6	-225.7	6,644.0	0.00	0.00	0.00
19,700.0	90.00	359.56	12,453.0	7,195.6	-226.5	6,736.7	0.00	0.00	0.00
19,800.0	90.00	359.56	12,453.0	7,295.6	-227.3	6,829.4	0.00	0.00	0.00
19,900.0	90.00	359.56	12,453.0	7,395.6	-228.0	6,922.1	0.00	0.00	0.00
20,000.0	90.00	359.56	12,453.0	7,495.6	-228.8	7,014.8	0.00	0.00	0.00
20,026.4	90.00	359.56	12,453.0	7,522.0	-229.0	7,039.3	0.00	0.00	0.00
PBHL (Caballo 23 Fed Com #710H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Caballo 23 Fed Cc - plan hits target center - Point	0.00	0.00	11,975.5	-251.0	-169.0	404,267.00	787,836.00	32° 6' 32.065 N	103° 32' 13.974 W
FTP (Caballo 23 Fed Co - plan misses target center by 163.4usft at 12380.1usft MD (12330.0 TVD, -93.4 N, -170.2 E) - Point	0.00	0.00	12,453.0	-201.0	-169.0	404,317.00	787,836.00	32° 6' 32.559 N	103° 32' 13.970 W
PBHL (Caballo 23 Fed C - plan hits target center - Point	0.00	0.00	12,453.0	7,522.0	-229.0	412,040.00	787,776.00	32° 7' 48.985 N	103° 32' 14.004 W

eog resources

Lea County, NM (NAD 83 NME)

Caballo 23 Fed Com #710H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

To convert a Magnetic Direction to a Grid Direction, Add 6.41°
To convert a Magnetic Direction to a True Direction, Add 6.83° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

WELL DETAILS: #710H

3345.0
KB = 25 @ 3370.0usft

Northing	Easting	Latitude	Longitude
404518.00	788005.00	32° 8' 34.536 N	103° 32' 11.988 W

SECTION DETAILS

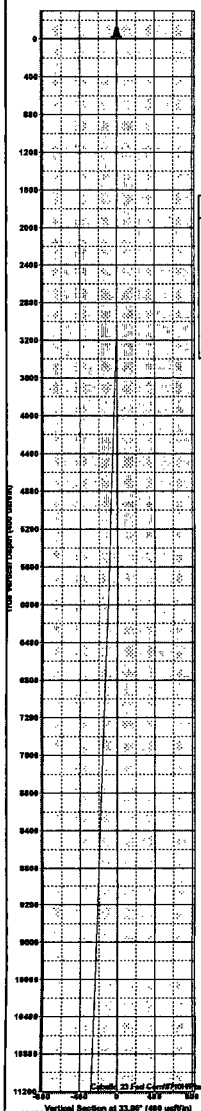
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3097.6	1.95	213.95	3097.6	-1.4	-0.9	2.00	213.95	-0.9	
4	11883.0	1.95	213.95	11877.9	-249.6	-168.1	0.00	0.00	-166.5	
5	11980.6	0.00	0.00	11975.5	-251.0	-169.0	2.00	180.00	-167.4	KOP (Caballo 23 Fed Com #710H
6	12730.6	90.00	359.56	12453.0	226.4	-172.7	12.00	359.56	275.2	
7	20026.4	90.00	359.56	12453.0	7522.0	-229.0	0.00	0.00	7039.3	PBHL (Caballo 23 Fed Com #710

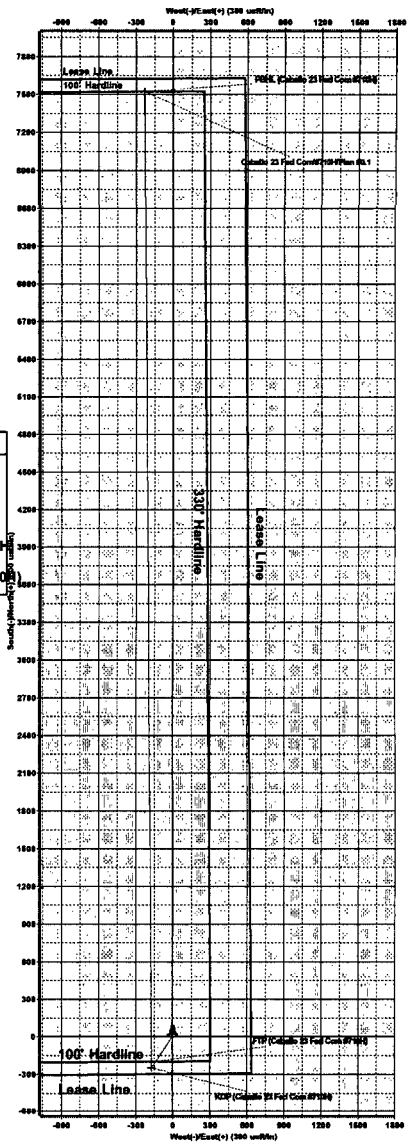
CASING DETAILS

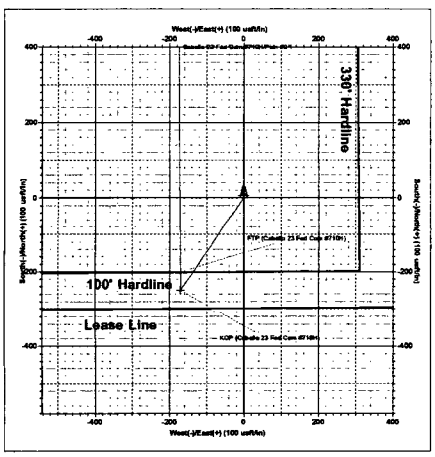
No casing data is available

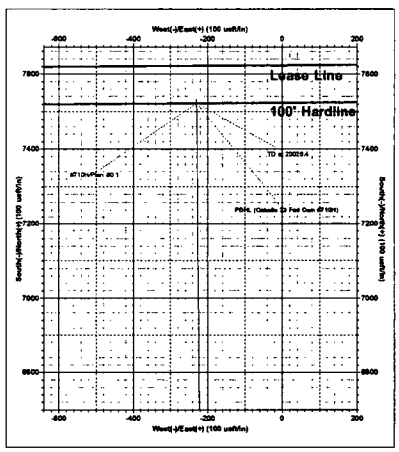
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

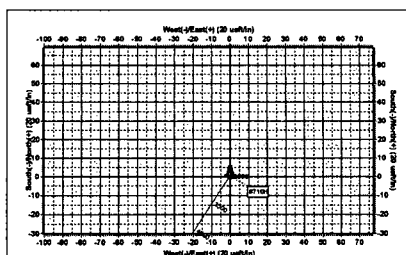
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Caballo 23 Fed Com #710H)	11975.5	-251.0	-169.0	404267.00	787838.00
FTP (Caballo 23 Fed Com #710H)	12453.0	-201.0	-169.0	404317.00	787838.00
PBHL (Caballo 23 Fed Com #710H)	12453.0	7522.0	-229.0	412040.00	787776.00

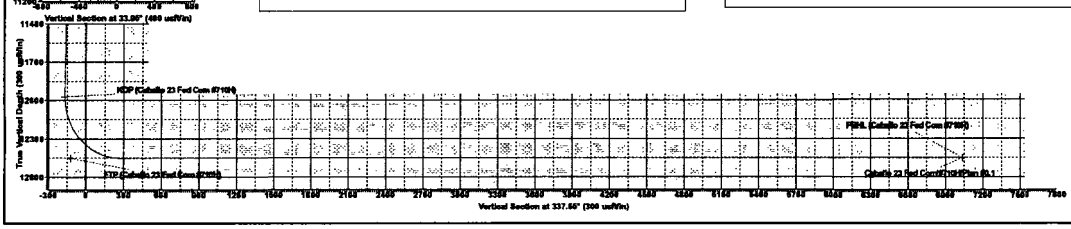












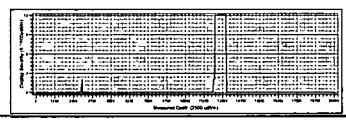
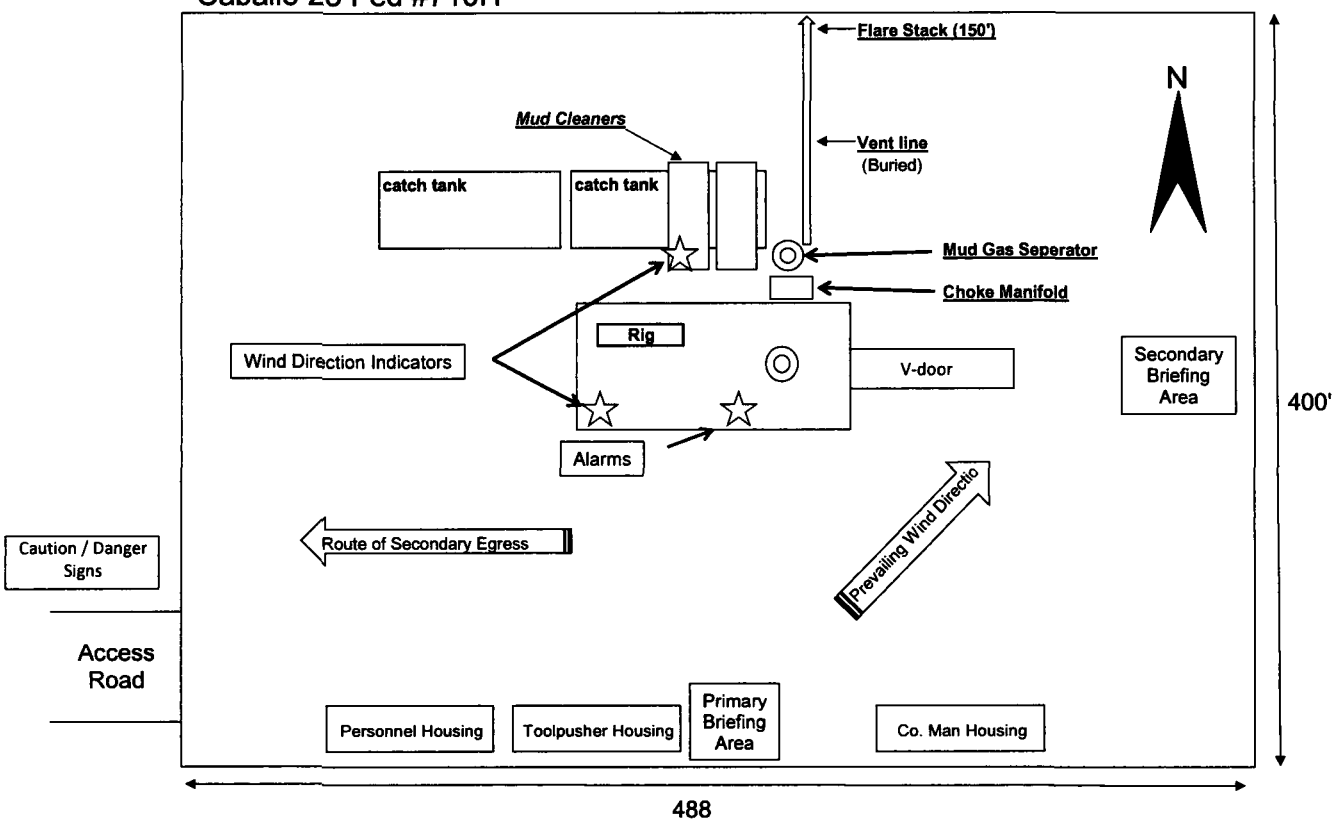


Exhibit 4

EOG Resources
Caballo 23 Fed #710H

Well Site Diagram



District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 08/29/2018

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: EOG Resources, Inc. 7377

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Caballo 23 Fed 705H	30-025-***	N-23-25S-33E	300 FSL & 2231 FWL	±3500	None Planned	APD Submission
Caballo 23 Fed 706H	30-025-***	N-23-25S-33E	300 FSL & 2264 FWL	±3500	None Planned	APD Submission
Caballo 23 Fed 707H	30-025-***	O-23-25S-33E	300 FSL & 2098 FEL	±3500	None Planned	APD Submission
Caballo 23 Fed 708H	30-025-***	O-23-25S-33E	300 FSL & 2065 FEL	±3500	None Planned	APD Submission
Caballo 23 Fed 709H	30-025-***	O-23-25S-33E	300 FSL & 2032 FEL	±3500	None Planned	APD Submission
Caballo 23 Fed 710H	30-025-***	P-23-25S-33E	300 FSL & 639 FEL	±3500	None Planned	APD Submission

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **Enterprise Field Services** and will be connected to **EOG Resources** low/high pressure gathering system located in Eddy/Lea County, New Mexico. **EOG Resources** provides (periodically) to **Enterprise Field Services** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **EOG Resources** and **Enterprise Field Services** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **Enterprise Field Services** Processing Plant located in **Lea** County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on **Enterprise Field Services** system at that time. Based on current information, it is **EOG Resources'** belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

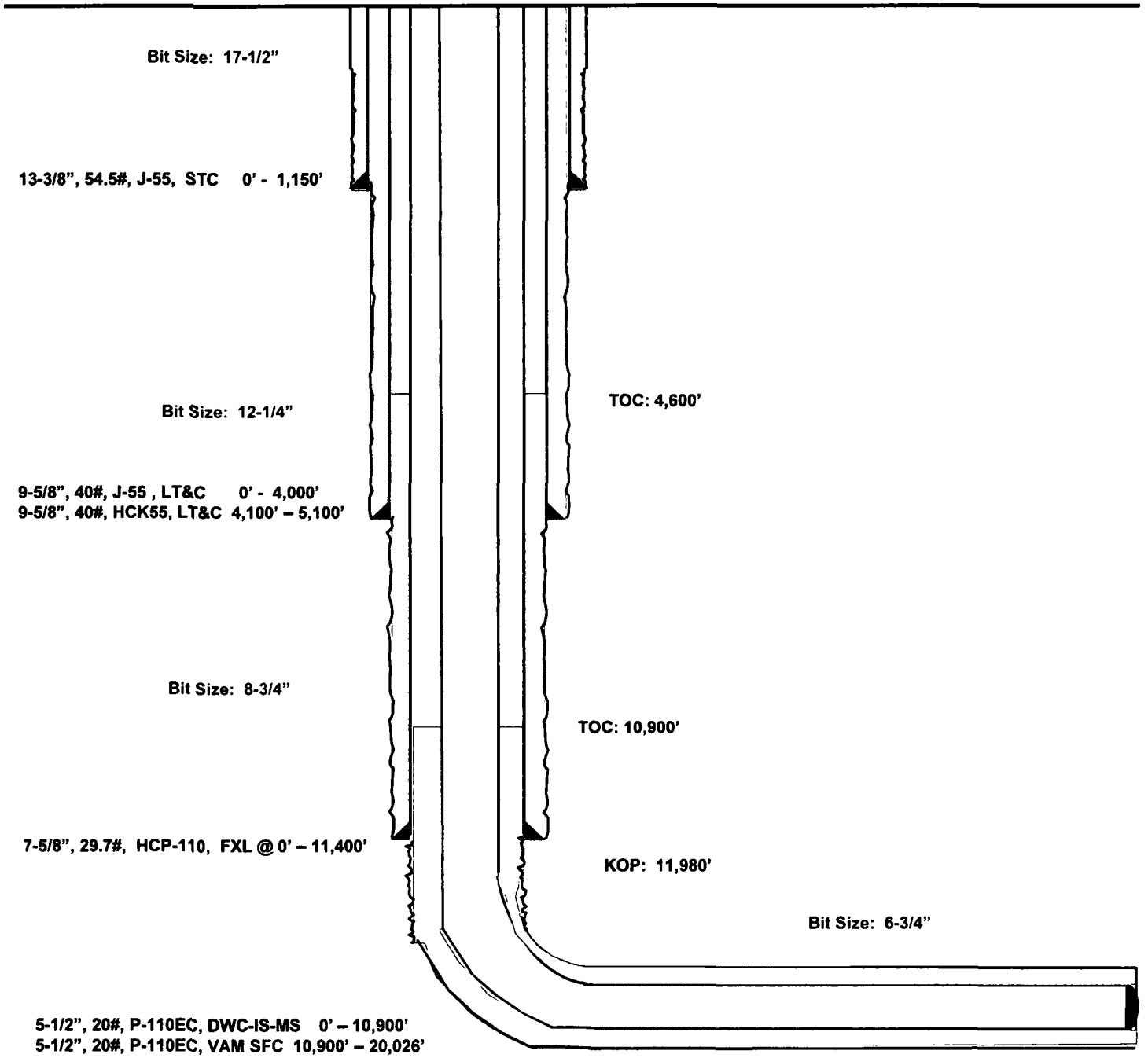
Caballo 23 Fed #710H
Lea County, New Mexico

300' FSL
639' FEL
Section 23
T-25-S, R-33-E

Proposed Wellbore

API: 30-025-*****

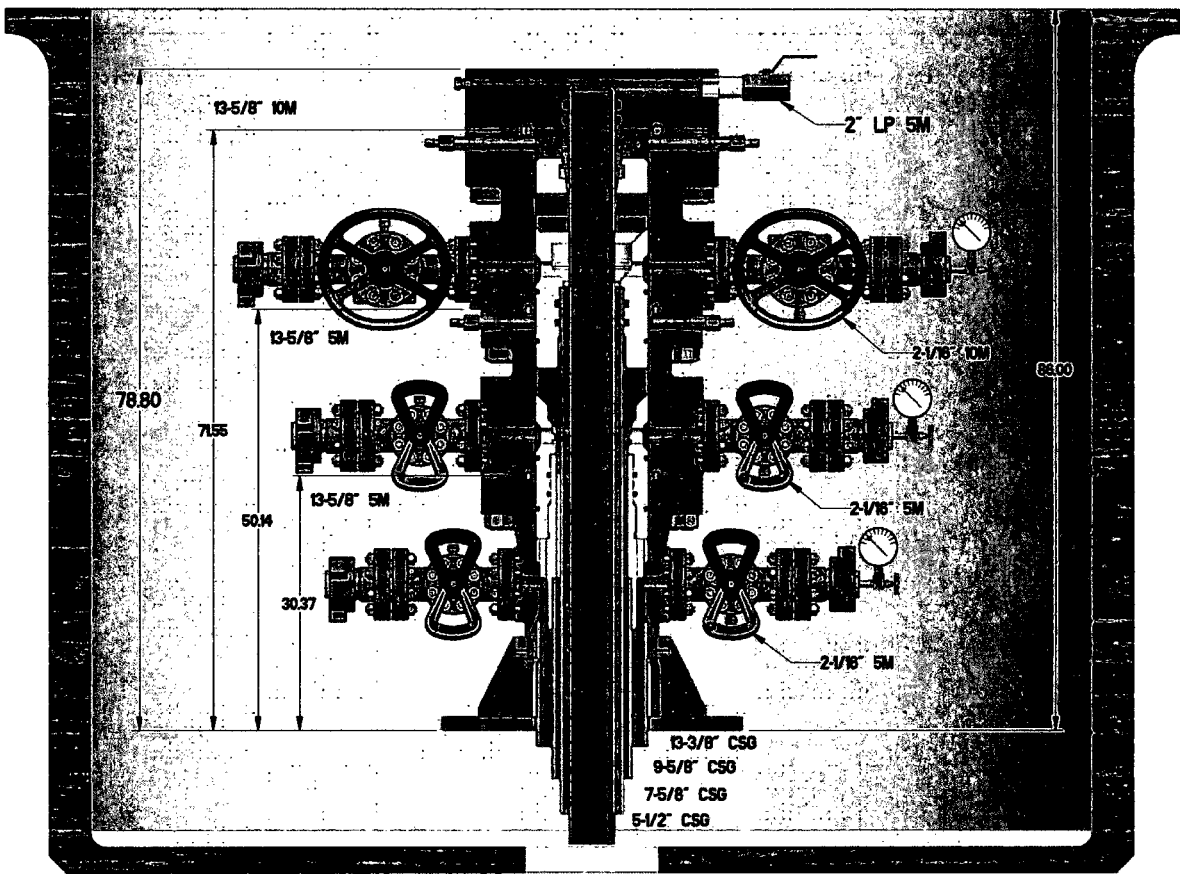
KB: 3,370'
GL: 3,345'



Lateral: 20,026' MD, 12,453' TVD
Upper Most Perf:
100' FSL & 810' FEL Sec. 23
Lower Most Perf:
2541' FSL & 810' FEL Sec. 14
BH Location: 2541' FSL & 810' FEL
Section 14
T-25-S, R-33-E

eog resources

FBD-100 WELLHEAD SYSTEM



EOG RESOURCES 13-3/8" X 9-5/8" X 7-5/8" X 5-1/2" FBD100 WELLHEAD SYSTEM	DWN.	EA	12/28/17	Stream Flo Worldwide Expertise - Global Strength	DRAWING No. WH-17731
	CHK.				
	APPR.				
		BY	DATE		

WH-17063 | Commonspace | X | WH-17731 | WH-17731

EOG RESOURCES, INC.
CABALLO 23 FED NO. 710H

1. GEOLOGIC NAME OF SURFACE FORMATION:
Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,047'
Top of Salt	1,440'
Base of Salt	4,881'
Lamar	5,026'
Bell Canyon	5,167'
Cherry Canyon	6,177'
Brushy Canyon	7,743'
Bone Spring Lime	9,214'
1st Bone Spring Sand	10,239'
2nd Bone Spring Shale	10,436'
2nd Bone Spring Sand	10,764'
3rd Bone Spring Carb	11,284'
3rd Bone Spring Sand	11,869'
Wolfcamp	12,310'
TD	12,453'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,177'	Oil
Brushy Canyon	7,743'	Oil
1st Bone Spring Sand	10,239'	Oil
2nd Bone Spring Shale	10,436'	Oil
2nd Bone Spring Sand	10,764'	Oil
3rd Bone Spring Carb	11,284'	Oil
3rd Bone Spring Sand	11,869'	Oil
Wolfcamp	12,310'	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 13.375" casing at 1,135' and circulating cement back to surface.

EOG RESOURCES, INC.
CABALLO 23 FED NO. 710H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 – 1,150'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0 – 4,100'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,100' – 5,100'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 – 11,400'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,900'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,900'- 20,026'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60

Variance is requested to wave the centralizer requirements for the 7-5/8" FJ 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.

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:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,150'	600	13.5	1.73	9.13	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	6.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
9-5/8" 5,100'	1780	12.7	2.20	11.64	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	200	16.0	1.12	4.75	Tail: Class C + 0.13% C-20
7-5/8" 11,400'	340	11.5	2.72	15.70	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,600')
	210	16.0	1.12	4.74	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
5-1/2" 20,026'	950	14.1	1.26	5.80	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,900')

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.

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).

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 (5,000-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.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5,000/ 250 psig.

Before drilling out of the intermediate casing (both the 9-5/8" and 7-5/8" strings), the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5000/ 250 psig.

Pipe rams and 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 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 11,400'	Oil Base	8.7-9.4	58-68	N/c - 6
11,400' – 20,026' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

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.

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_2S 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.

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

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9066 psig (based on 14.0 ppg MW). 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.

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.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 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 10,000 psi.

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.

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.

10,000 PSI BOP Annular
Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

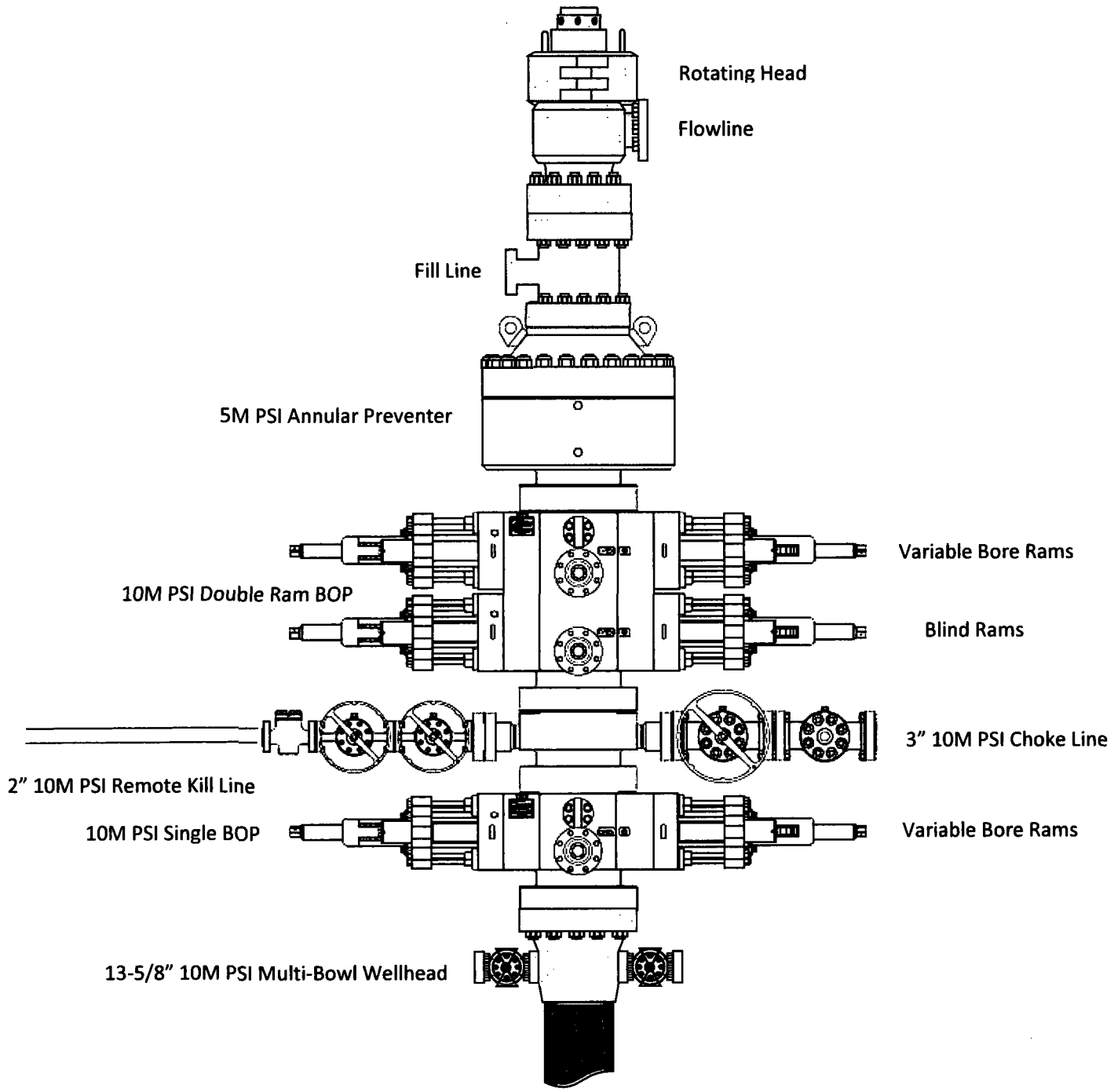
12-1/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	8.000" – 9.625"	Annular	5M	-	-
1st Intermediate casing	9.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

8-3/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	6.750" – 8.000"	Annular	5M	-	-
2nd Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500" – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources
13-5/8" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
    a. Perform flowcheck, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper variable bore rams.
    e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
    f. Confirm shut-in
    g. Notify toolpusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the upper variable bore rams.
    d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP

ii. Pit gain
iii. Time

h. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
   a. Sound alarm (alert crew)
   b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
   c. If impossible to pick up high enough to pull the string clear of the stack:
   d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
   e. Space out drill string with tooljoint just beneath the upper variable bore ram.
   f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
   g. Confirm shut-in
   h. Notify toolpusher/company representative
   i. Read and record the following:
      i. SIDPP and SICP
      ii. Pit gain
      iii. Time
   j. Regroup and identify forward plan

APD ID: 10400033183 **Submission Date:** 08/30/2018

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CABALLO_23_FED_710H_vicinity_20180829153225.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CABALLO_23_FED_710H_padsite_20180829153258.pdf
CABALLO_23_FED_710H_wellsite_20180829153303.pdf
Caballo_23_Fed_Infrastructure_20180829153307.pdf

New road type: RESOURCE

Length: 1610 Feet **Width (ft.):** 24

Max slope (%): 2 **Max grade (%):** 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat.
Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No drainage crossings

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

CABALLO_23_FED_710H_radius_20180829153326.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Caballo 23 Fed central battery is located in the SW/4 of section 23

Production Facilities map:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Caballo_23_Fed_Infrastructure_20180829153342.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: OTHER

Water source type: RECYCLED

Describe type:

Source latitude:

Source longitude:

Source datum:

Water source permit type: WATER RIGHT

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 0

Source volume (acre-feet): 0

Source volume (gal): 0

Water source and transportation map:

Caballo_23_Fed_water_and_caliche_map_20180829153431.pdf

Water source comments:

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location attachment:

Caballo_23_Fed_water_and_caliche_map_20180829153502.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

CABALLO_23_FED_710H_padsite_20180829153526.pdf

CABALLO_23_FED_710H_wellsite_20180829153528.pdf

Caballo_23_Fed__710H_Rig_Layout_20180830101417.pdf

Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** CABALLO 23 FED

Multiple Well Pad Number: 710H/711H

Recontouring attachment:

CABALLO_23_FED_710H_reclamation_20180829153543.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Well pad proposed disturbance (acres): 0	**Well pad interim reclamation (acres):** 0	**Well pad long term disturbance (acres):** 0
Road proposed disturbance (acres): 0	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 0	**Total interim reclamation:** 0	**Total long term disturbance:** 0

Disturbance Comments: All Interim and Final reclamation must be within 6 months. Interim must be within 6 months of completion and final within 6 months of abandonment plugging. Dual pad operations may alter timing.

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Soil treatment: Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be

redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Star **Last Name:** Harrell

Phone: (432)848-9161 **Email:** star_harrell@eogresources.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.
Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.
Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Fee Owner: Oliver Kiehne **Fee Owner Address:** P.O. Box 135 Orla, TX 79770

Phone: (575)399-9281 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: surface use agreement

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

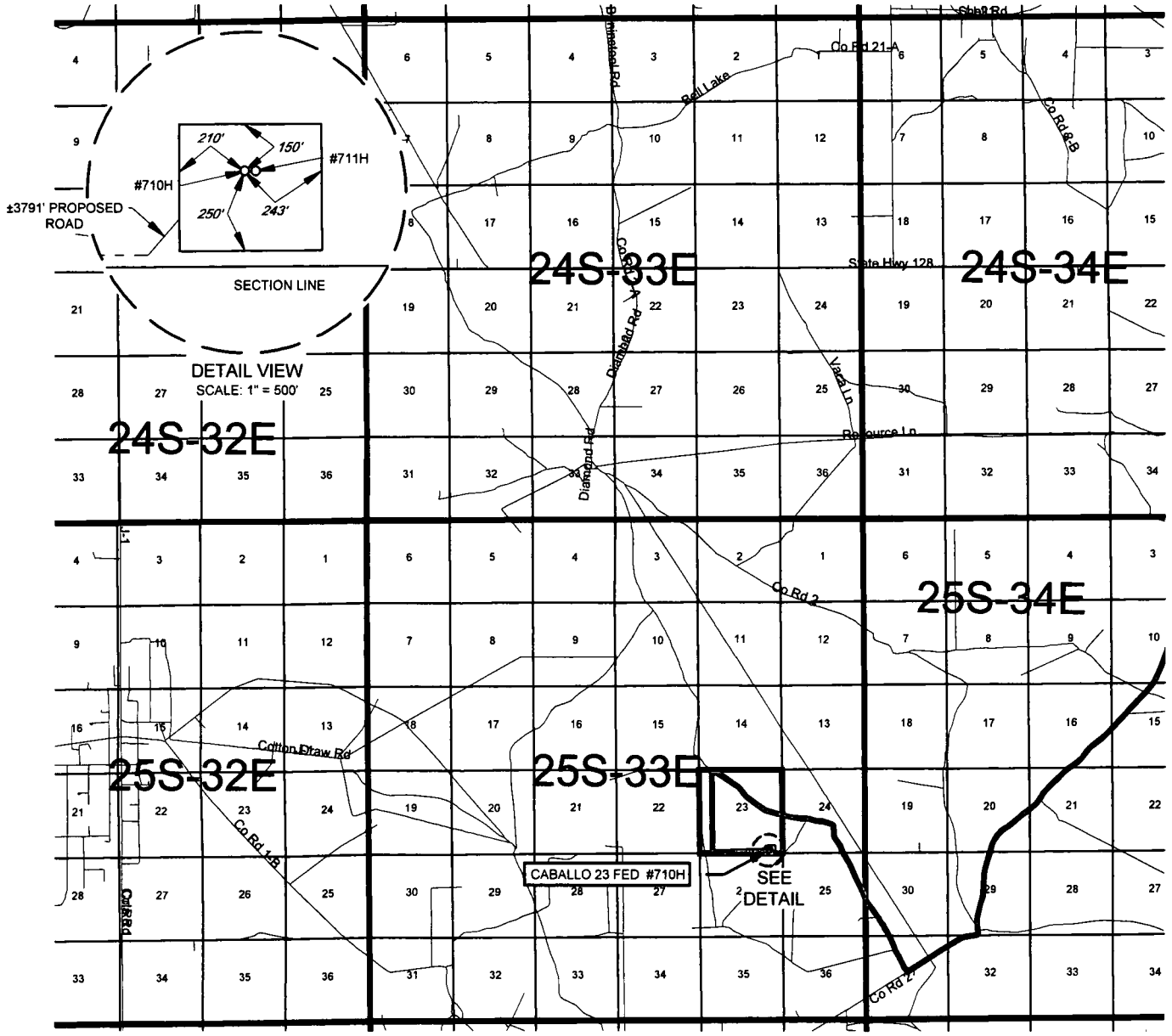
SUPO Additional Information: An onsite meeting was conducted 5/04/18. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.
Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

CABALLO_23_FED_710H_location_20180829153627.pdf
Caballo_23_Fed_Gas_Capture_Plan_20180829153629.pdf
SUPO_Caballo_23_Fed_710H_20180829153632.pdf

EXHIBIT 2
VICINITY MAP



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LEASE NAME & WELL NO.: CABALLO 23 FED #710H

SECTION 23 TWP 25-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 300' FSL & 639' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-18 S. & NM-128, GO WEST ON NM-128 ±14.1 MILES, THENCE SOUTHWEST (LEFT) ON BATTLE AXE RD. ±10.5 MILES, THENCE NORTHWEST (RIGHT) ON LEASE RD. ±3.6 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±0.9 MILES, THENCE EAST (LEFT) ON A PROPOSED RD. ±3791 FEET TO A POINT ±258 FEET SOUTHWEST OF THE LOCATION.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

SCALE: 1" = 10000'

0' 5000' 10000'

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EXHIBIT 2B

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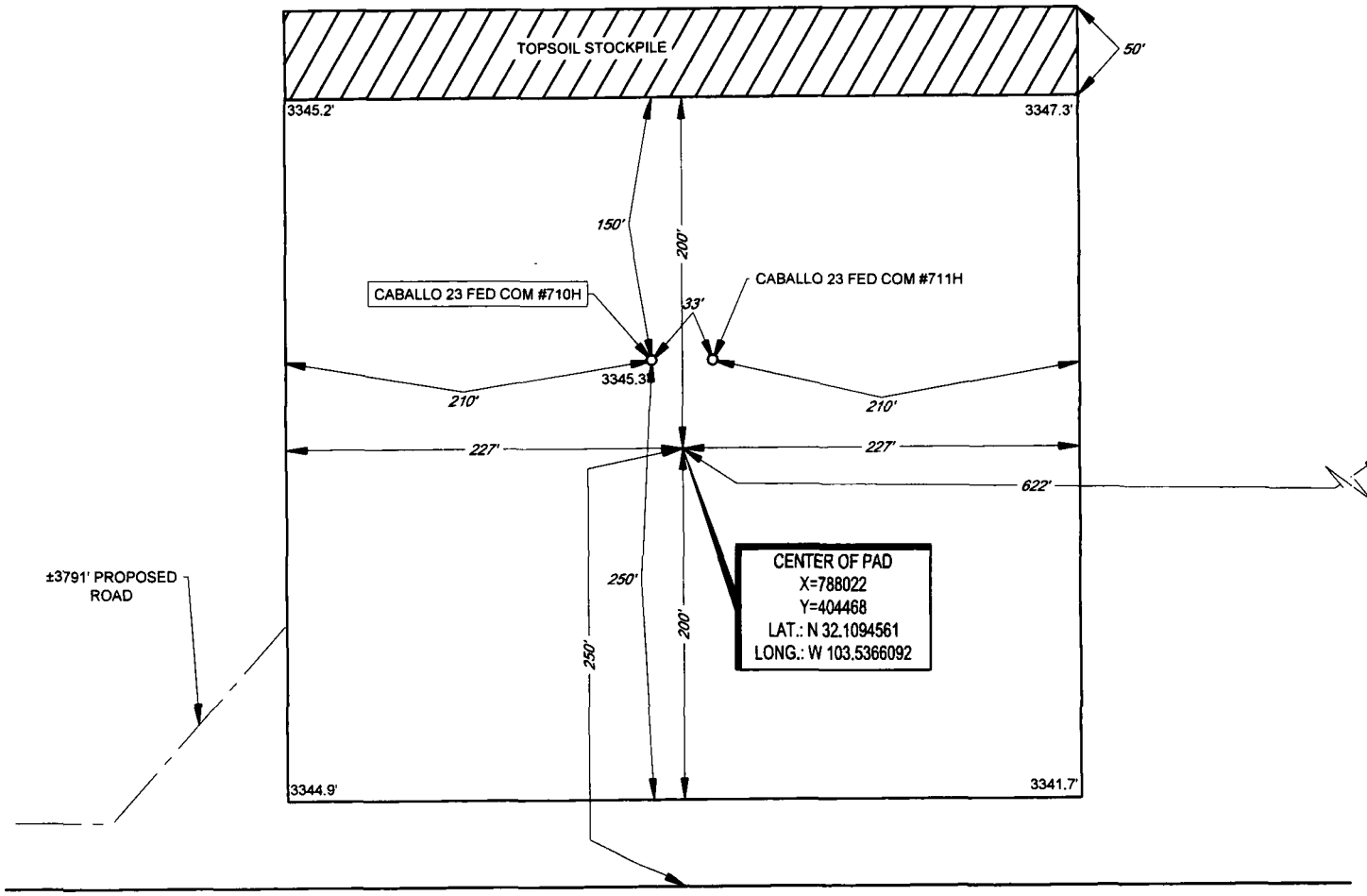
SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: CABALLO 23 FED #710H

#710H LATITUDE N 32.1095936 #710H LONGITUDE W 103.5366624

CENTER OF PAD IS 250' FSL & 622' FEL

LEGEND

SECTION LINE

PROPOSED ROAD

N

SCALE: 1" = 100'

0' 50' 100'

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

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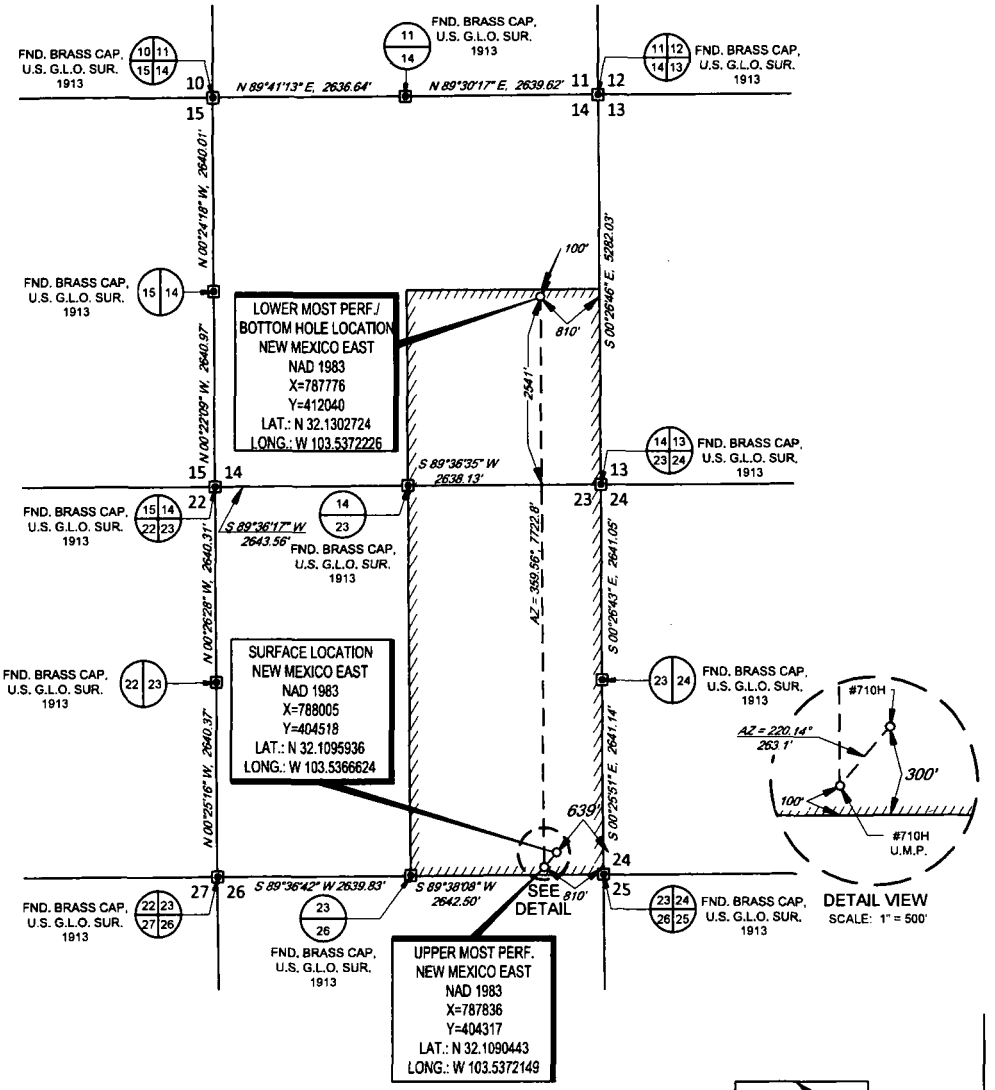
EXHIBIT 2A

SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: CABALLO 23 FED #710H

SECTION 23 TWP 25-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 300' FSL & 639' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-18 S. & NM-128, GO WEST ON NM-128 ±14.1 MILES, THENCE SOUTHWEST (LEFT) ON BATTLE AXE RD. ±10.5 MILES, THENCE NORTHWEST (RIGHT) ON LEASE RD. ±3.6 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±0.9 MILES, THENCE EAST (LEFT) ON A PROPOSED RD. ±3791 FEET TO A POINT ±258 FEET SOUTHWEST OF THE LOCATION.

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MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
AUGUAT 17, 2018

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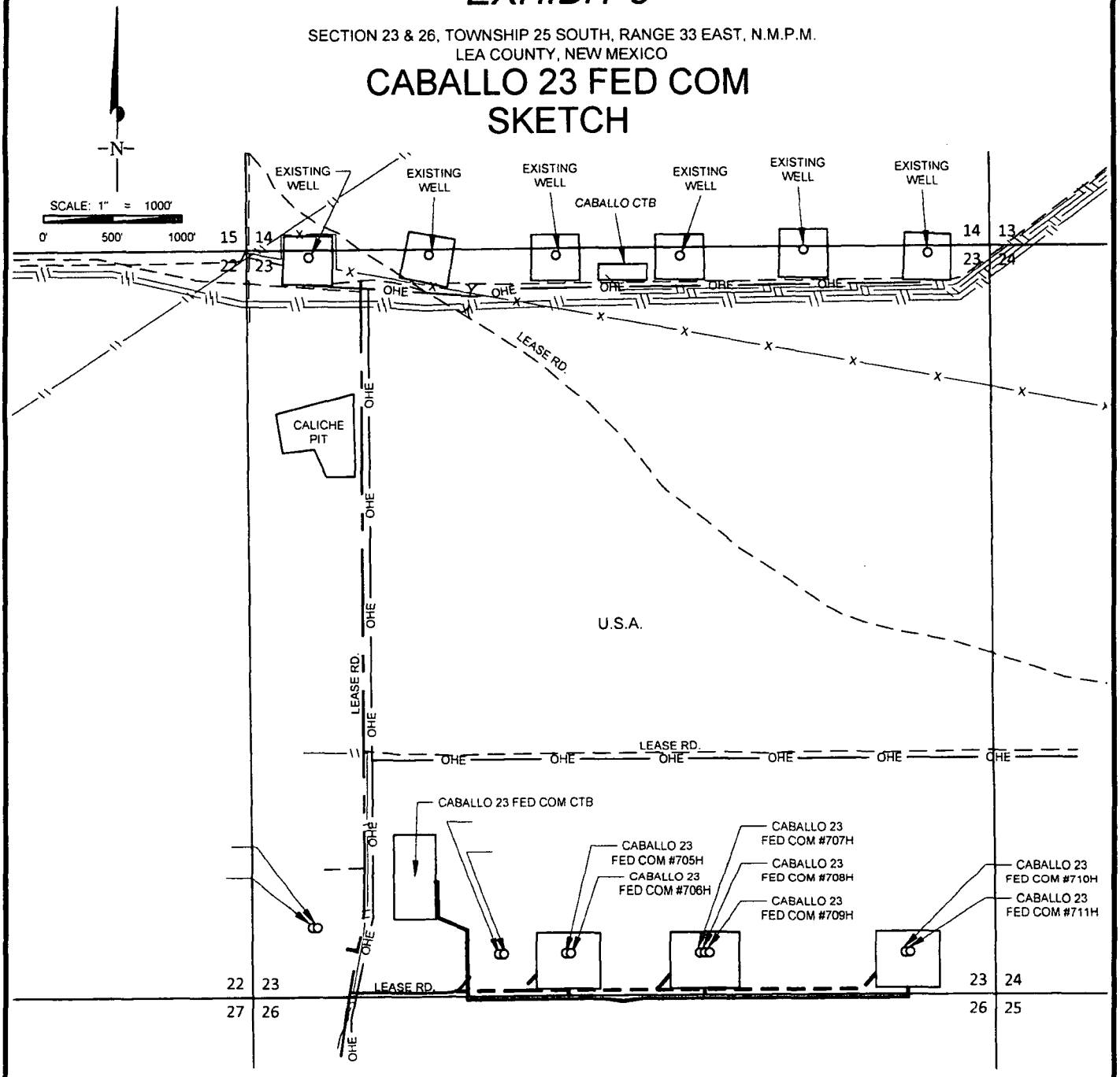
EXHIBIT 5

SECTION 23 & 26, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, NEW MEXICO

CABALLO 23 FED COM SKETCH



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CABALLO 23 FED COM SKETCH	REVISION:	
DATE: 8/22/18		
FILE: SK_CABALLO_23_FED_COM_705H-711H		
DRAWN BY: CES		
SHEET: 1 OF 1		

PROPOSED FLOWLINES
-TOTAL FOOTAGES..... 8,706 FT OR 527 RODS

CABALLO 23 FED COM CTB TO 705H/706H
PROPOSED FLOWLINE ..... 1,773 FT OR 107 RODS

CABALLO 23 FED COM CTB TO 707H/708H/709H
PROPOSED FLOWLINE ..... 2,745 FT OR 166 RODS

CABALLO 23 FED COM CTB TO 710H/711H
PROPOSED FLOWLINE ..... 4,188 FT OR 254 RODS

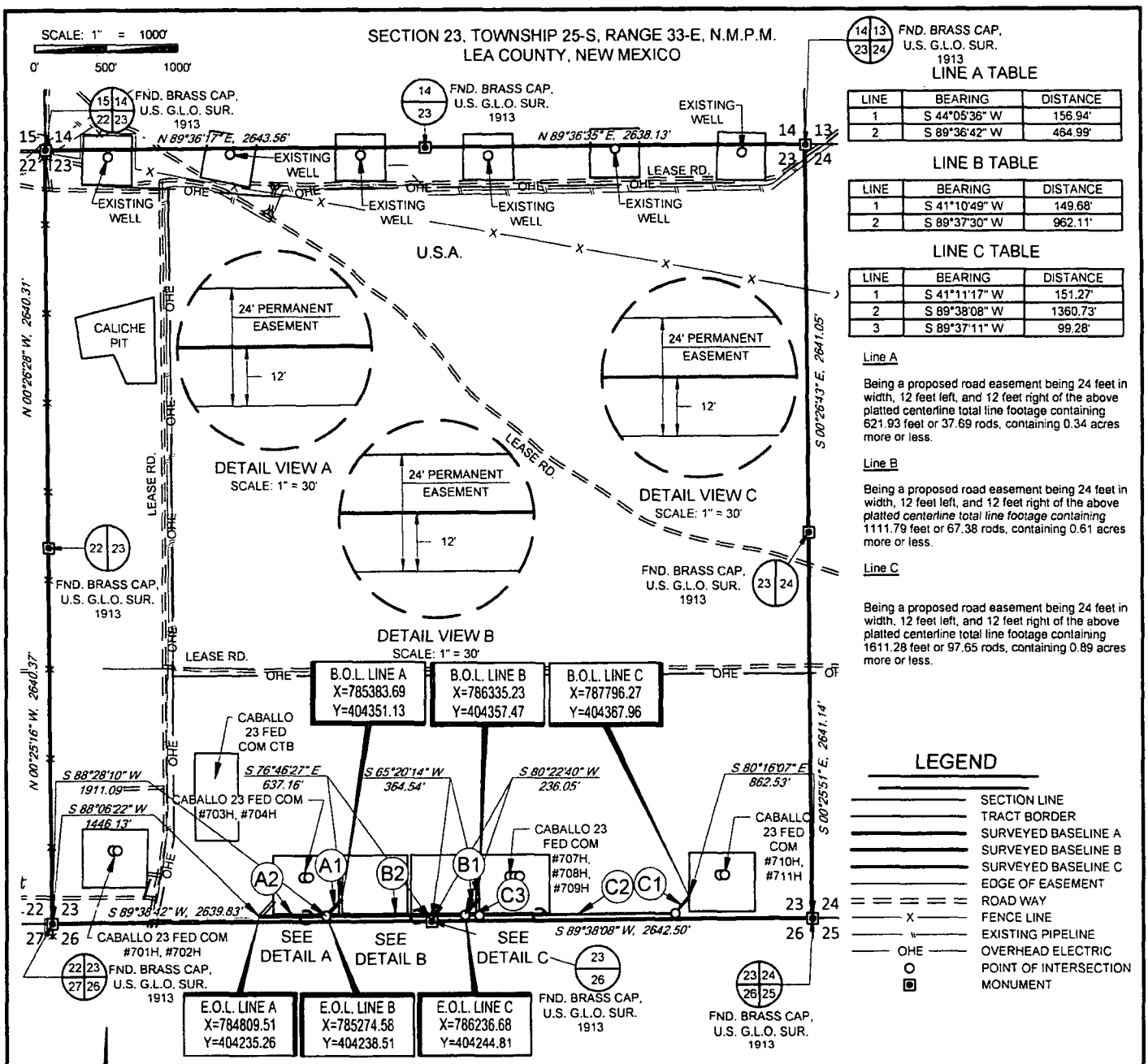
PROPOSED ROADS
-TOTAL FOOTAGES..... 3,344 FT OR 203 RODS

CABALLO 23 FED COM 705H/706H TO EXISTING ROAD
PROPOSED ROAD ..... 622 FT OR 38 RODS

CABALLO 23 FED COM 707H/708H/709H TO 705H/706H ROAD
PROPOSED ROAD ..... 1,112 FT OR 67 RODS

CABALLO 23 FED COM 710H/711H TO 707H/708H/709H ROAD
PROPOSED ROAD ..... 1,610 FT OR 98 RODS

S:\SURVEY\EOG_MIDLAND\CABALLO_23_FED_COM\FINAL_PRODUCTS\SKETCH\SK_CABALLO_23_FED_COM_705H-711H.DWG 8/22/2018 3:06:54 PM csmith5



LINE A TABLE

LINE	BEARING	DISTANCE
1	S 44°05'36" W	156.94'
2	S 89°36'42" W	464.99'

LINE B TABLE

LINE	BEARING	DISTANCE
1	S 41°10'49" W	149.68'
2	S 89°37'30" W	962.11'

LINE C TABLE

LINE	BEARING	DISTANCE
1	S 41°11'17" W	151.27'
2	S 89°38'08" W	1360.73'
3	S 89°37'11" W	99.28'

Line A

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 621.93 feet or 37.69 rods, containing 0.34 acres more or less.

Line B

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 1111.79 feet or 67.38 rods, containing 0.61 acres more or less.

Line C

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 1611.28 feet or 97.65 rods, containing 0.89 acres more or less.

LEGEND

- SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- SURVEYED BASELINE C
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT

CABALLO 23 FED COM #705H-#711H ROAD EASEMENT

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Michael Blake Brown, P.S. No. 18329
MARCH 15, 2018

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CABALLO 23 FED COM #705H-#711H ROAD EASEMENT	REVISION: INT	DATE
DATE: 08/23/18		
FILE: EP_CABALLO_23_FED_COM_705H-711H_ROAD		
DRAWN BY: TRG		
SHEET: 1 OF 1		

NOTES:
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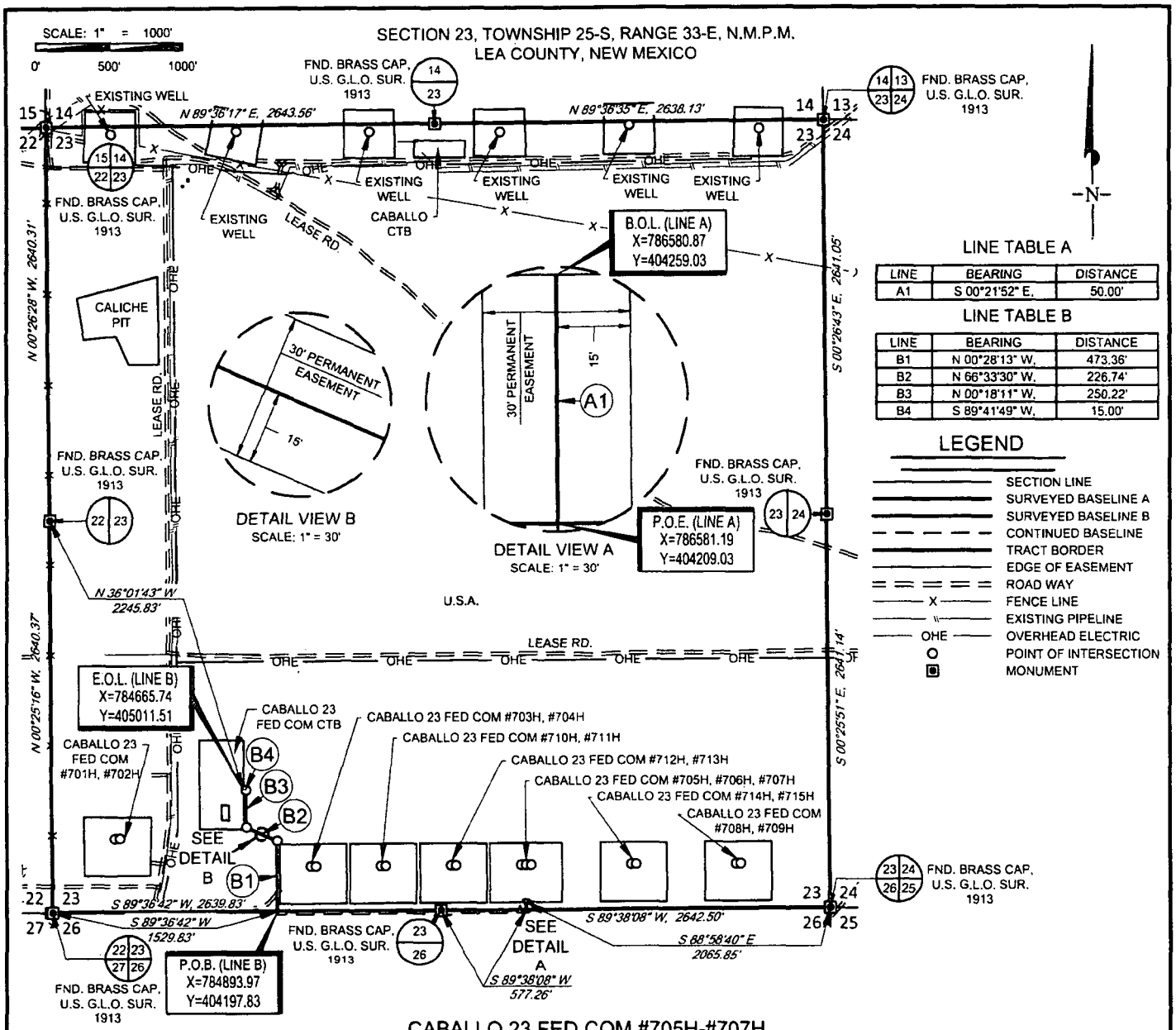
4. B.O.L. = BEGINNING OF LINE
5. E.O.L. = END OF LINE

S:\SURVEY\EOG_MIDLAND\CABALLO_23_FED_COM\FINAL_PRODUCTS\EP_CABALLO_23_FED_COM_705H-711H_ROAD.DWG 8/24/2018 8:24:35 AM tguerra



LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 00°21'52" E,	50.00'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°41'49" W,	15.00'

LEGEND

- SECTION LINE
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT

CABALLO 23 FED COM #705H-#707H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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CABALLO 23 FED COM #705H-#707H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_705H-707H_FL_S23		
DRAWN BY: MML		
SHEET: 1 OF 1		

NOTES:
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4. *B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING*
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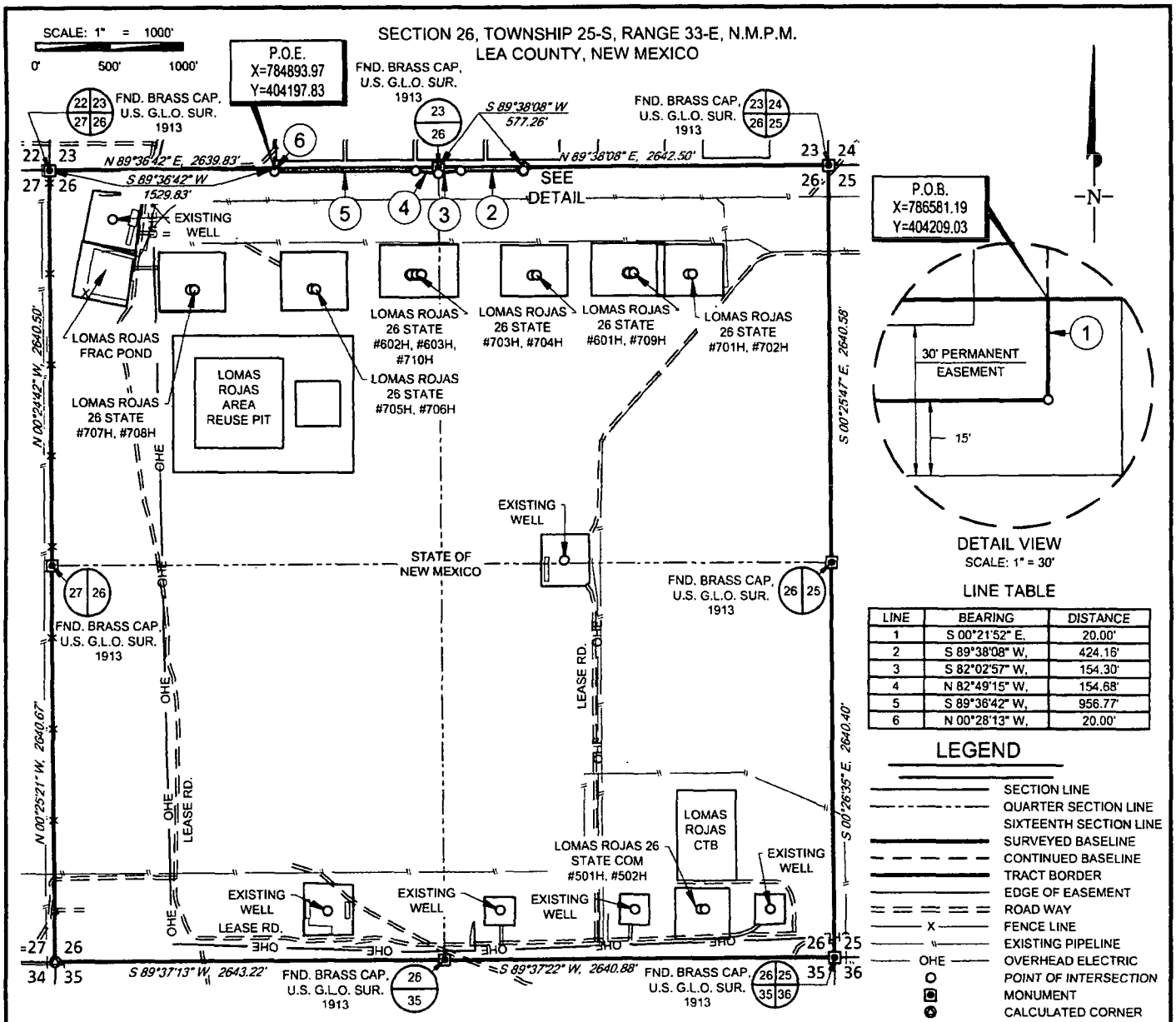
S:\SURVEY\EOG_MIDLAND\CABALLO_23_FED_COM\FINAL_PRODUCTS\EP_C23FC_705H-707H_FL_S23.DWG 5/29/2018 5:09:44 PM csmith5



DETAIL VIEW
SCALE: 1" = 30'

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°21'52" E,	20.00'
2	S 89°38'08" W,	424.16'
3	S 82°02'57" W,	154.30'
4	N 82°49'15" W,	154.68'
5	S 89°36'42" W,	956.77'
6	N 00°28'13" W,	20.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #705H-#707H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1729.91 feet or 104.84 rods, containing 1.19 acres more or less and allocated by quarter quarters as follows:

NW/4 NE/4 = 598.54 feet or 36.27 rods, containing 0.41 acres
NE/4 NW/4 = 1131.37 feet or 68.57 rods, containing 0.78 acres

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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CABALLO 23 FED COM #705H-#707H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_705H-707H_FL_S26		
DRAWN BY: MML		
SHEET: 1 OF 1		

NOTES:
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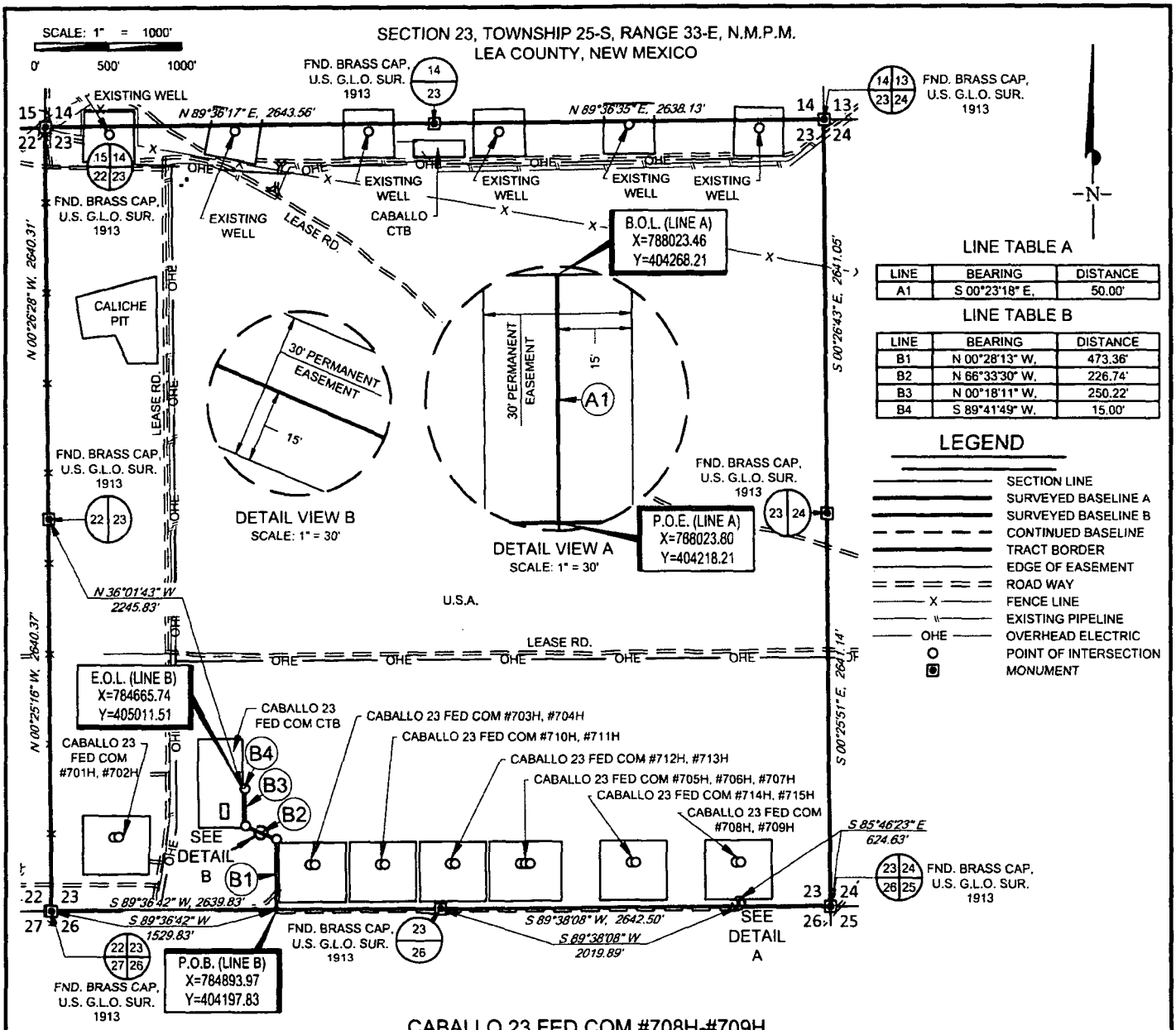

LINE	BEARING	DISTANCE
A1	S 00°23'18" E,	50.00'

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°41'49" W,	15.00'

CABALLO 23 FED COM #708H-#709H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

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MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

eog resources, inc.

CABALLO 23 FED COM #708H-#709H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_708H-709H_FL_S23		
DRAWN BY: MML		
SHEET: 1 OF 1		

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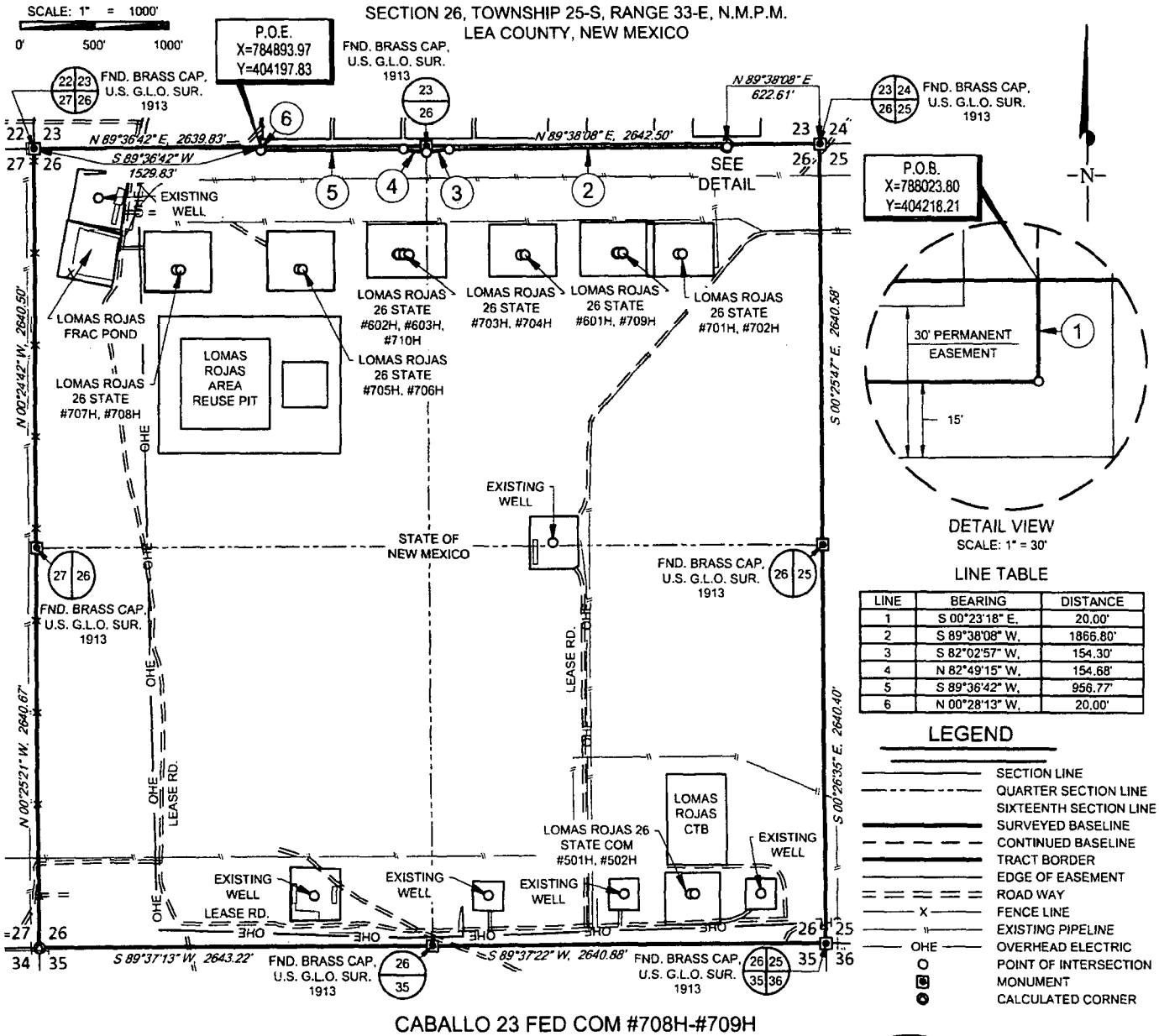
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 26, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



DETAIL VIEW
SCALE: 1" = 30'

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°23'18" E,	20.00'
2	S 89°38'08" W,	1866.80'
3	S 82°02'57" W,	154.30'
4	N 82°49'15" W,	154.68'
5	S 89°36'42" W,	956.77'
6	N 00°28'13" W,	20.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #708H-#709H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 3172.55 feet or 192.28 rods, containing 2.18 acres more or less and allocated by quarter quarters as follows:

NE/4 NE/4 = 718.62 feet or 43.55 rods, containing 0.49 acres
NW/4 NE/4 = 1322.56 feet or 80.16 rods, containing 0.91 acres
NE/4 NW/4 = 1131.37 feet or 68.57 rods, containing 0.78 acres

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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CABALLO 23 FED COM #708H-#709H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_708H-709H_FL_S26		
DRAWN BY: MML		
SHEET: 1 OF 1		

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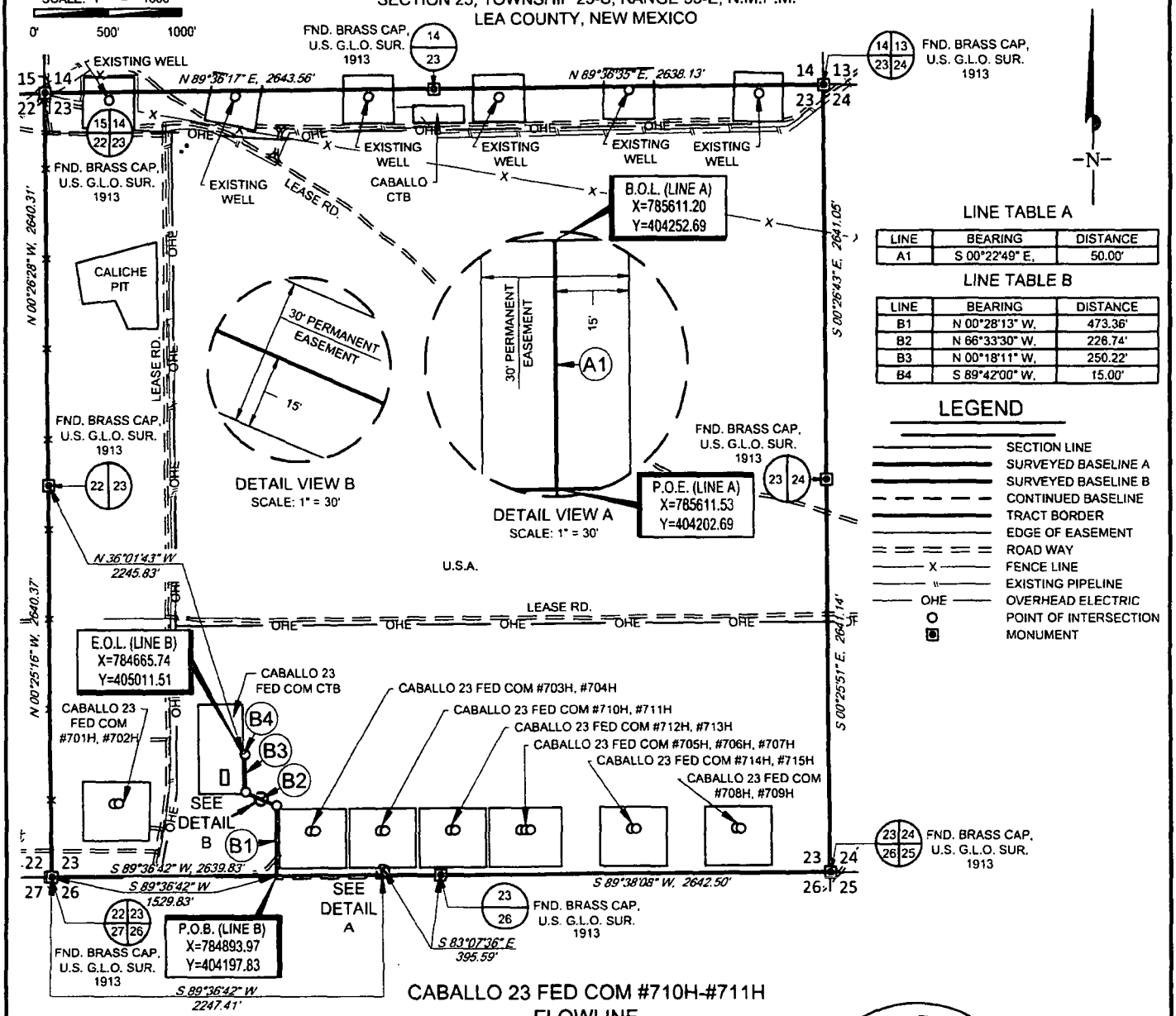
SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

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



LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 00°22'49" E,	50.00'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°42'00" W,	15.00'

LEGEND

- SECTION LINE
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT

CABALLO 23 FED COM #710H-#711H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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CABALLO 23 FED COM #710H-#711H FLOWLINE	REVISION: INT	DATE
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FILE: EP_C23FC_710H-711H_FL_S23		
DRAWN BY: MML		
SHEET: 1 OF 1		

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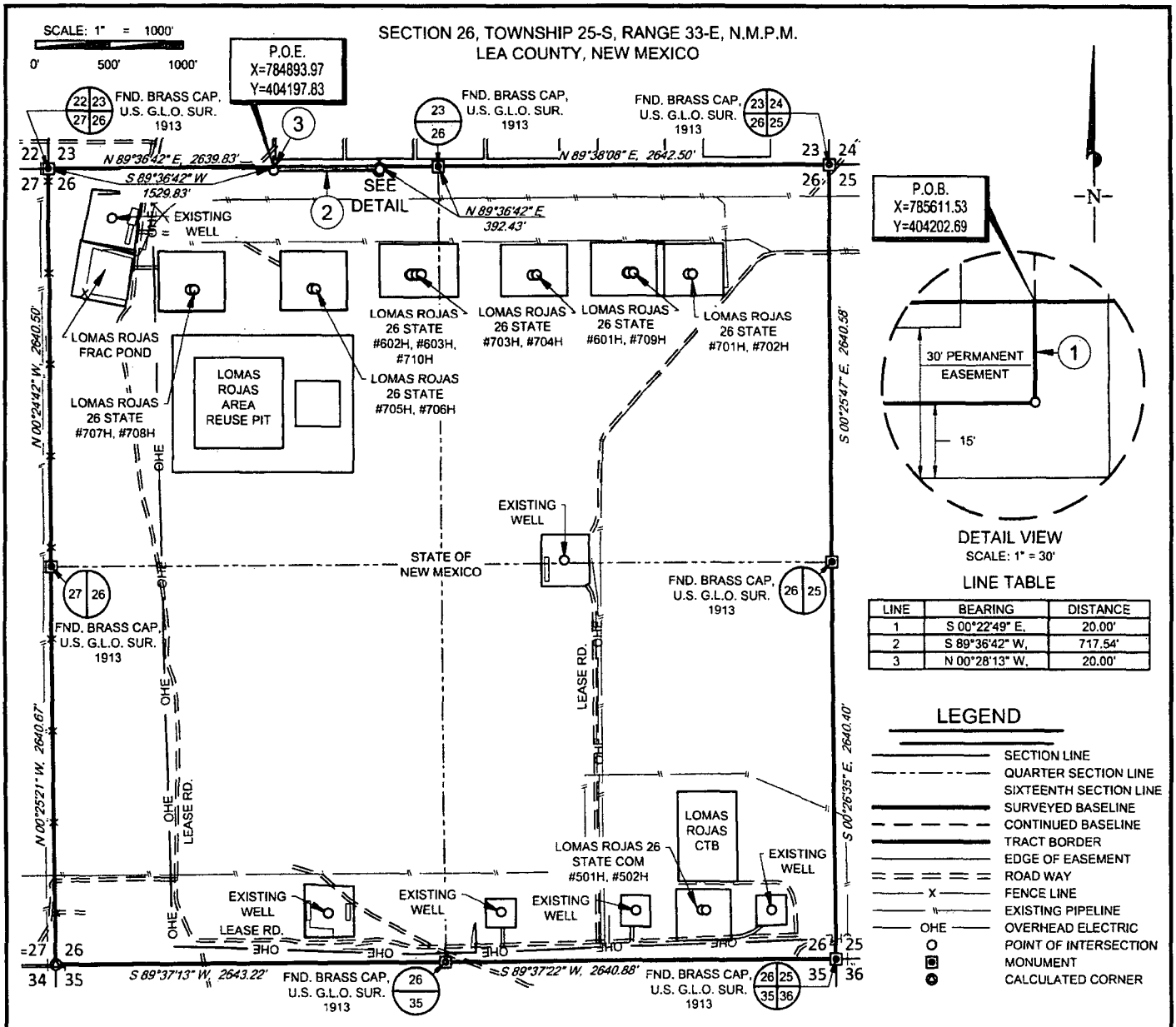

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°22'49" E,	20.00'
2	S 89°36'42" W,	717.54'
3	N 00°28'13" W,	20.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #710H-#711H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 757.54 feet or 45.91 rods, containing 0.52 acres more or less and allocated by quarter quarters as follows:

NE/4 NW/4 = 757.54 feet or 45.91 rods, containing 0.52 acres

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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CABALLO 23 FED COM #710H-#711H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_710H-711H_FL_S26		
DRAWN BY: MML		
SHEET: 1 OF 1		

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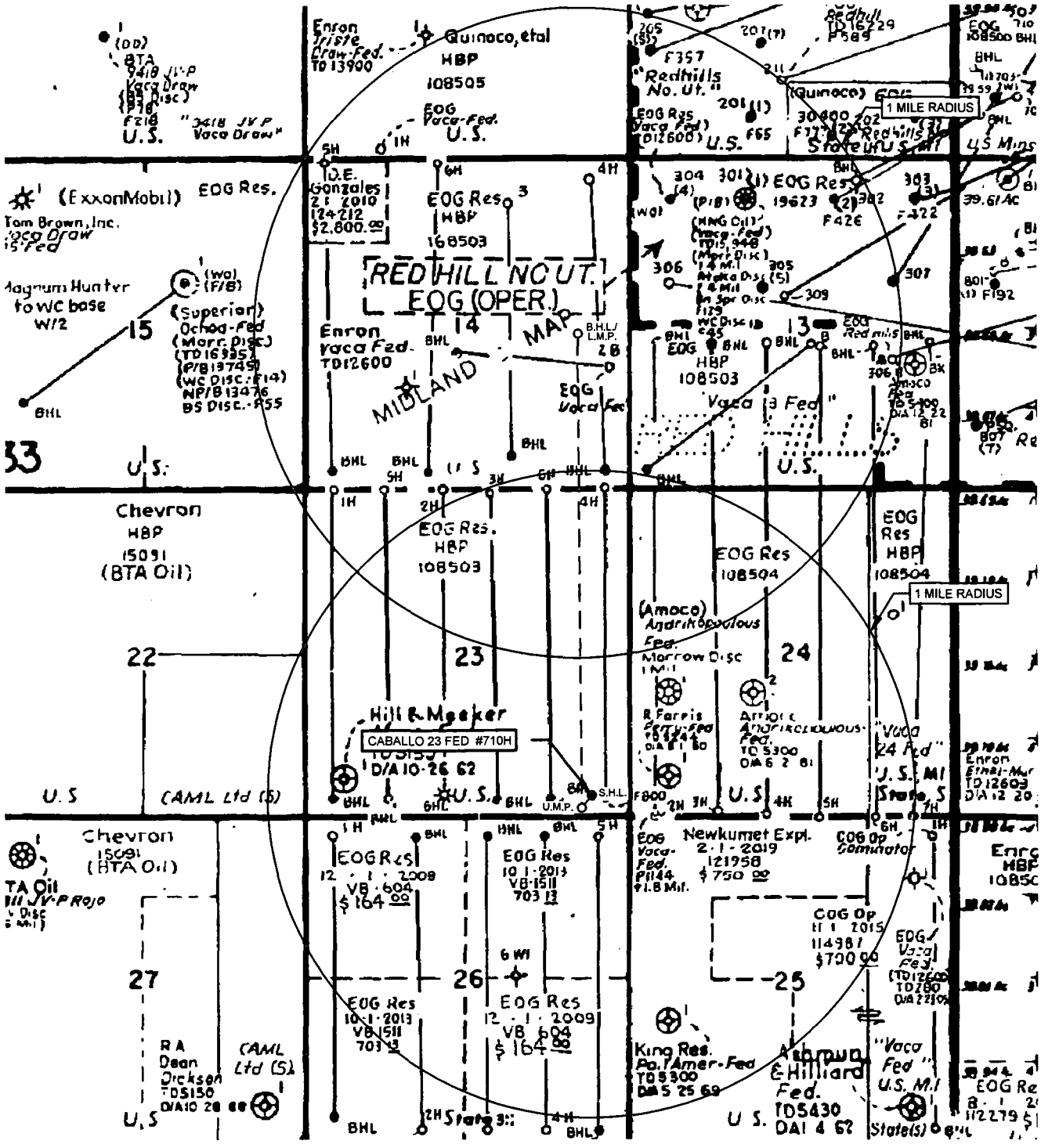
EXHIBIT 3

eog resources, inc.

SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: CABALLO 23 FED #710H

SCALE: NTS

#710H LATITUDE N 32.1095936 #710H LONGITUDE W 103.5366624

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

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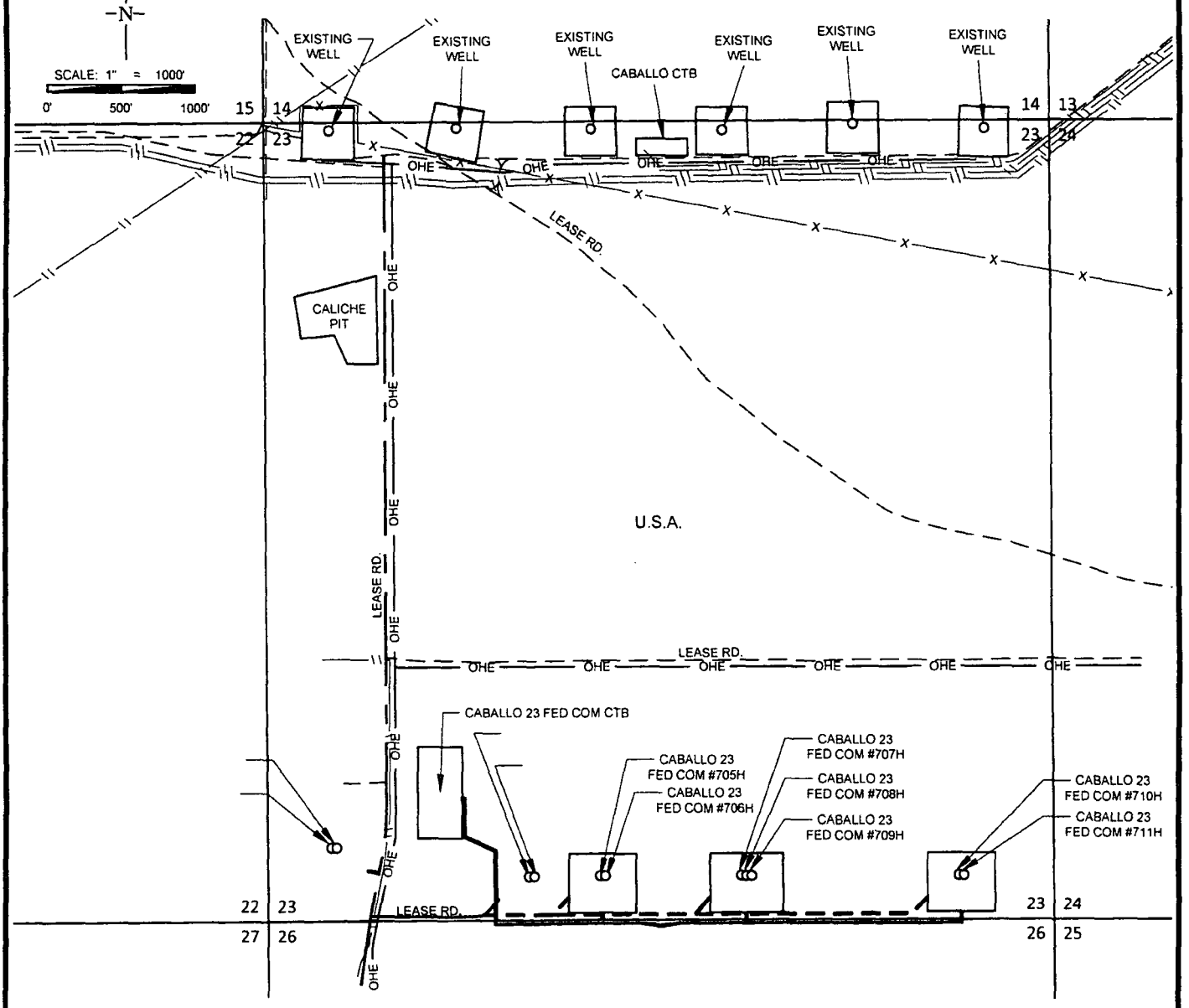
EXHIBIT 5

SECTION 23 & 26, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, NEW MEXICO

CABALLO 23 FED COM SKETCH



PROPOSED FLOWLINES
-TOTAL FOOTAGES..... 8,706 FT OR 527 RODS

CABALLO 23 FED COM CTB TO 705H/706H
PROPOSED FLOWLINE ..... 1,773 FT OR 107 RODS

CABALLO 23 FED COM CTB TO 707H/708H/709H
PROPOSED FLOWLINE ..... 2,745 FT OR 166 RODS

CABALLO 23 FED COM CTB TO 710H/711H
PROPOSED FLOWLINE ..... 4,188 FT OR 254 RODS

PROPOSED ROADS
-TOTAL FOOTAGES..... 3,344 FT OR 203 RODS

CABALLO 23 FED COM 705H/706H TO EXISTING ROAD
PROPOSED ROAD ..... 622 FT OR 38 RODS

CABALLO 23 FED COM 707H/708H/709H TO 705H/706H ROAD
PROPOSED ROAD ..... 1,112 FT OR 67 RODS

CABALLO 23 FED COM 710H/711H TO 707H/708H/709H ROAD
PROPOSED ROAD ..... 1,610 FT OR 98 RODS

eog resources, Inc.

CABALLO 23 FED COM SKETCH	REVISION:	
DATE: 8/22/18		
FILE: SK_CABALLO_23_FED_COM_705H-711H		
DRAWN BY: CES		
SHEET: 1 OF 1		

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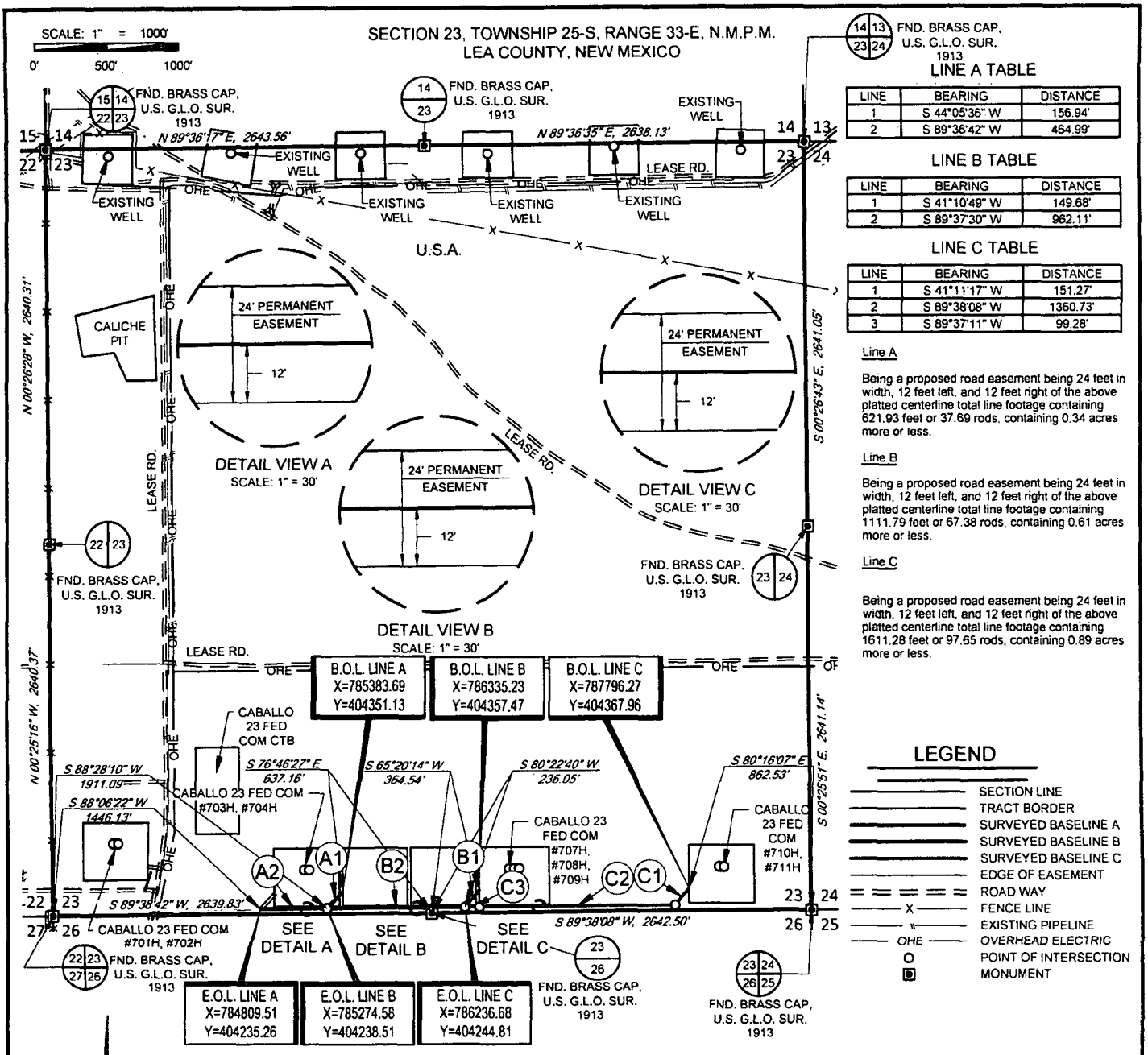

CABALLO 23 FED COM #705H-#711H ROAD EASEMENT

LINE A TABLE

LINE	BEARING	DISTANCE
1	S 44°05'36" W	156.94'
2	S 89°36'42" W	464.99'

LINE B TABLE

LINE	BEARING	DISTANCE
1	S 41°10'49" W	149.68'
2	S 89°37'30" W	962.11'

LINE C TABLE

LINE	BEARING	DISTANCE
1	S 41°11'17" W	151.27'
2	S 89°38'08" W	1360.73'
3	S 89°37'11" W	99.28'

Line A

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 621.93 feet or 37.69 rods, containing 0.34 acres more or less.

Line B

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 1111.79 feet or 67.38 rods, containing 0.61 acres more or less.

Line C

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 1611.28 feet or 97.65 rods, containing 0.89 acres more or less.

LEGEND

- SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- SURVEYED BASELINE C
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT

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"PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE."

Michael Blake Brown, P.S. No. 18329
MARCH 15, 2018

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CABALLO 23 FED COM #705H-#711H ROAD EASEMENT	REVISION:	
	INT	DATE
DATE: 08/23/18		
FILE: EP_CABALLO_23_FED_COM_705H-711H_ROAD		
DRAWN BY: TRG		
SHEET: 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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4. B.O.L. = BEGINNING OF LINE
5. E.O.L. = END OF LINE

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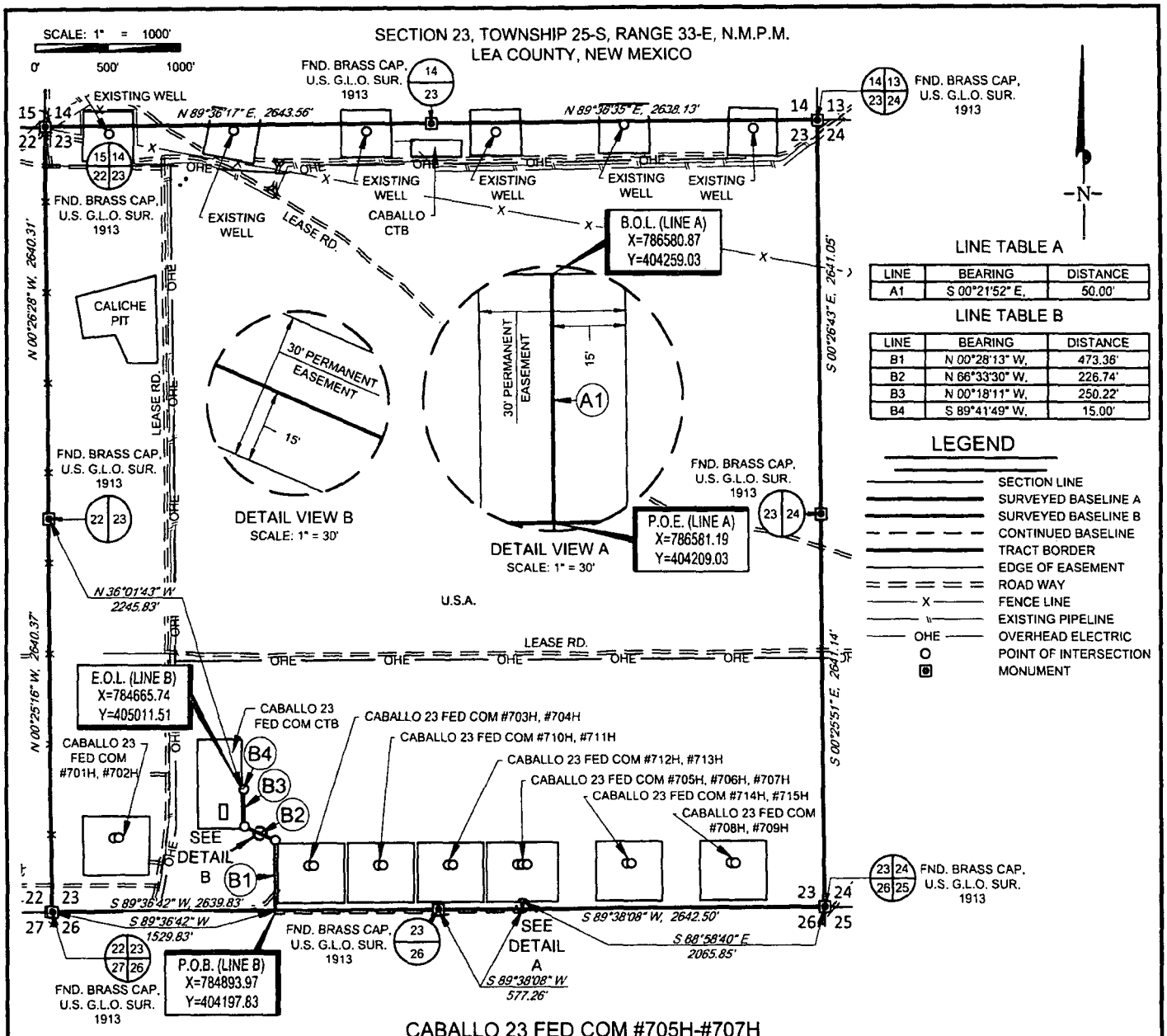

LINE	BEARING	DISTANCE
A1	S 00°21'52" E,	50.00'

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°41'49" W,	15.00'

CABALLO 23 FED COM #705H-#707H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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LOYALTY INNOVATION LEGACY
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CABALLO 23 FED COM #705H-#707H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_705H-707H_FL_S23		
DRAWN BY: MML		
SHEET: 1 OF 1		

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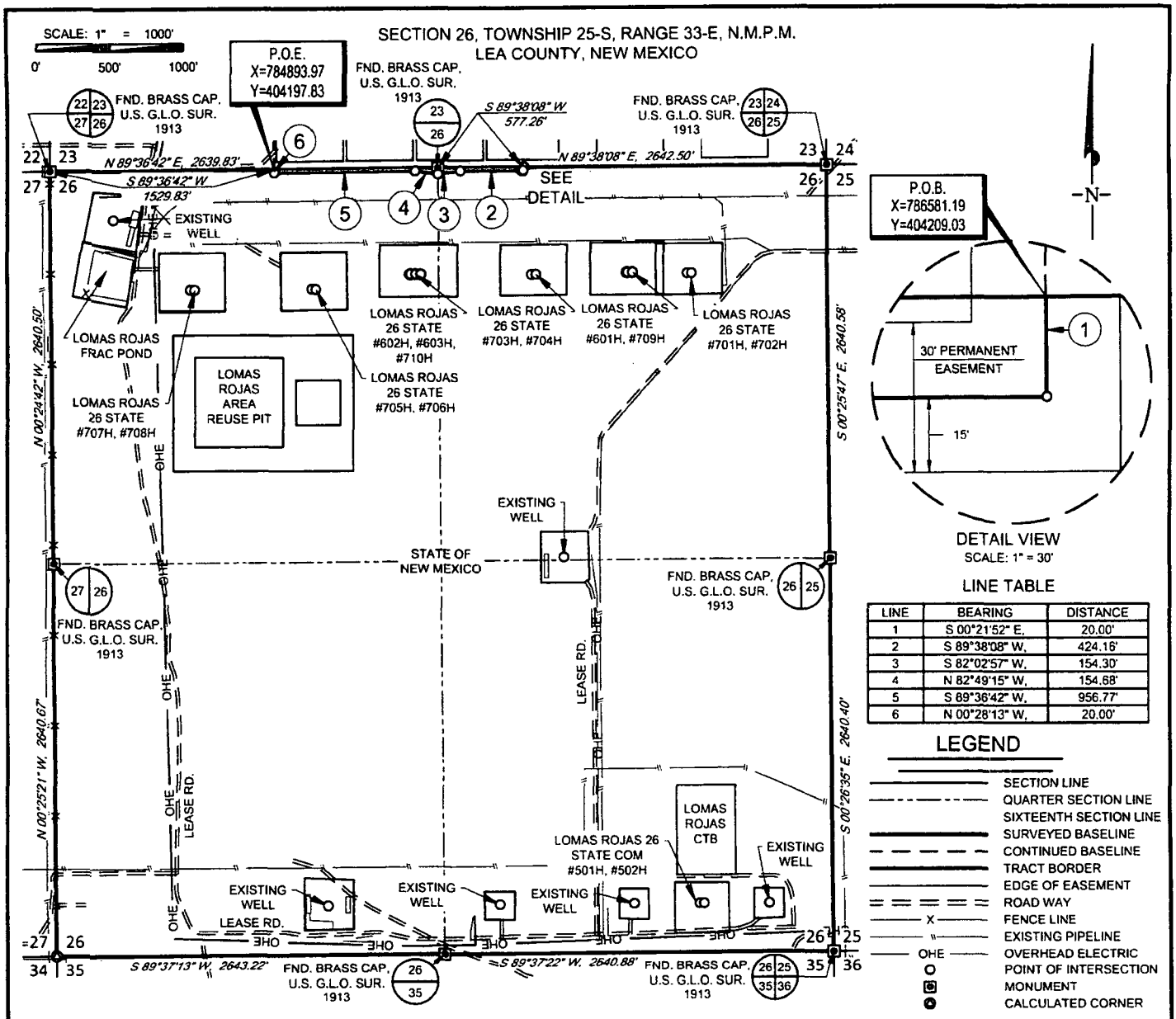

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°21'52" E,	20.00'
2	S 89°38'08" W,	424.16'
3	S 82°02'57" W,	154.30'
4	N 82°49'15" W,	154.68'
5	S 89°36'42" W,	956.77'
6	N 00°28'13" W,	20.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #705H-#707H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1729.91 feet or 104.84 rods, containing 1.19 acres more or less and allocated by quarter quarters as follows:

NW/4 NE/4 = 598.54 feet or 36.27 rods, containing 0.41 acres
NE/4 NW/4 = 1131.37 feet or 68.57 rods, containing 0.78 acres

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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DRAWN BY: MML		
SHEET: 1 OF 1		

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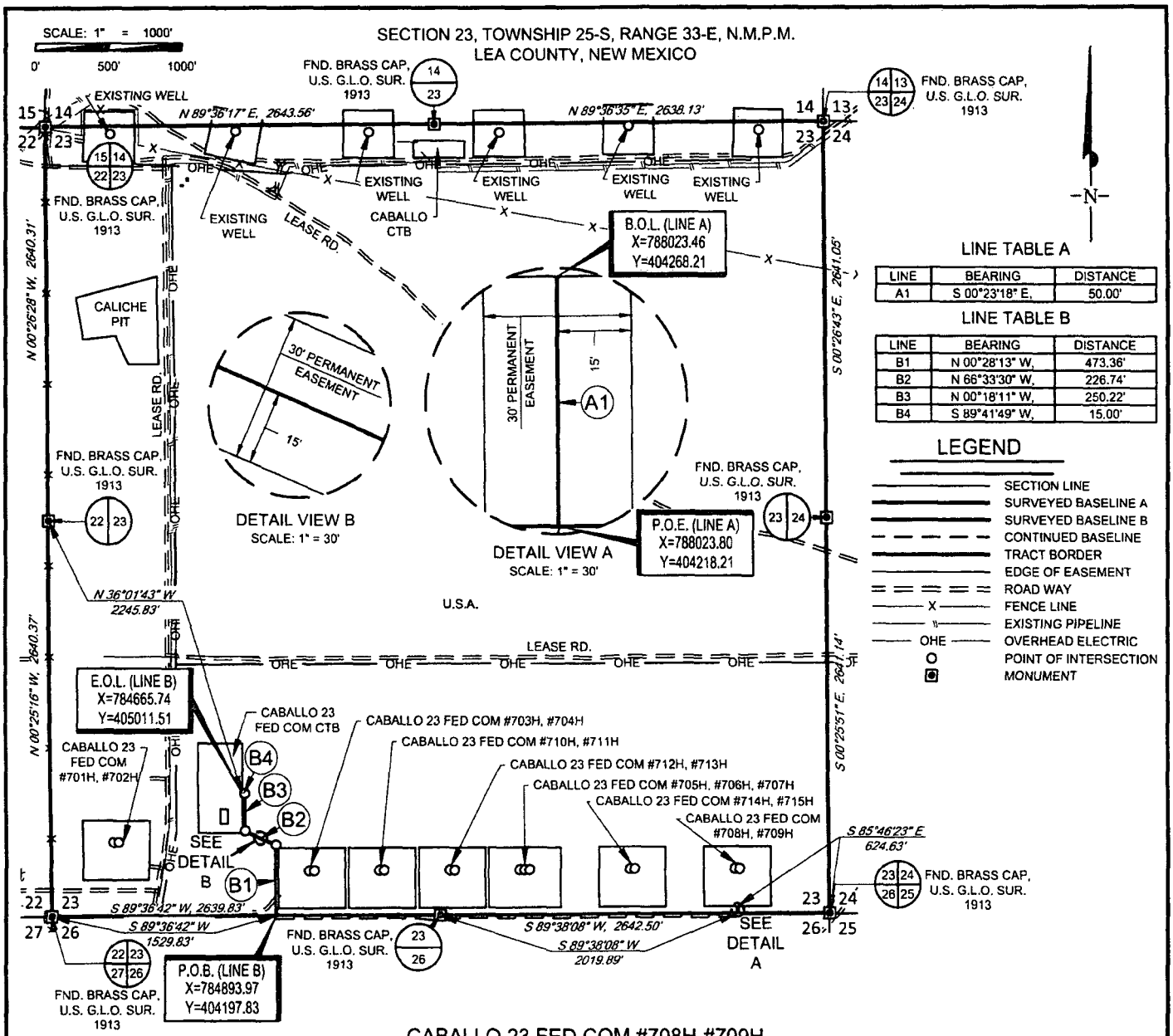

LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 00°23'18" E,	50.00'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°41'49" W,	15.00'

LEGEND

- SECTION LINE
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- *MONUMENT*

CABALLO 23 FED COM #708H-#709H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
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CABALLO 23 FED COM #708H-#709H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_708H-709H_FL_S23		
DRAWN BY: MML		
SHEET: 1 OF 1		

NOTES:
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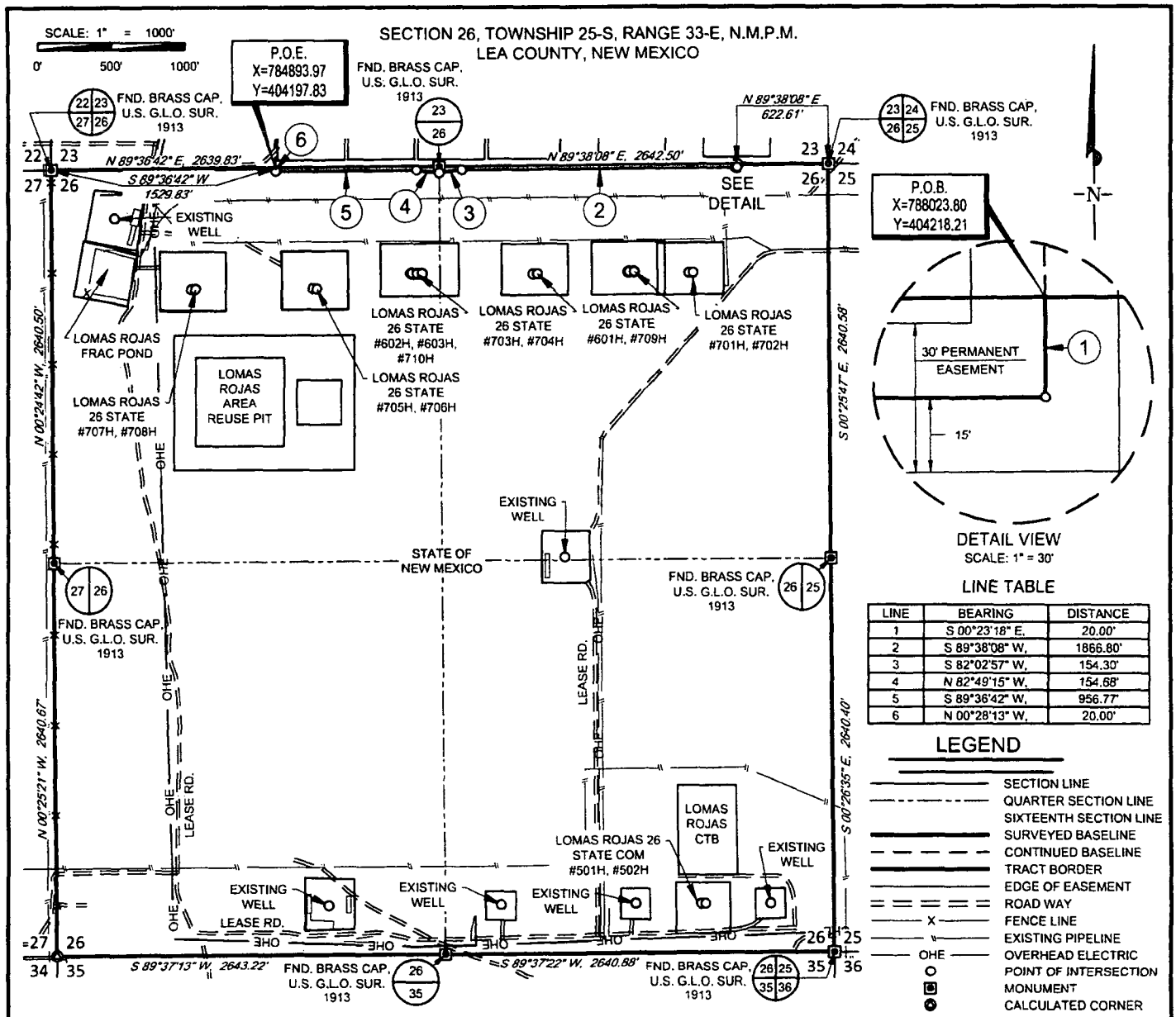


LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°23'18" E,	20.00'
2	S 89°38'08" W,	1866.80'
3	S 82°02'57" W,	154.30'
4	N 82°49'15" W,	154.68'
5	S 89°36'42" W,	956.77'
6	N 00°28'13" W,	20.00'

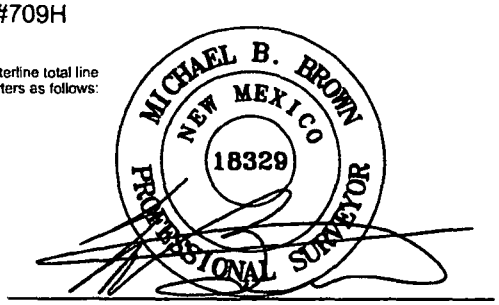
LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #708H-#709H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 3172.55 feet or 192.28 rods, containing 2.18 acres more or less and allocated by quarter quarters as follows:

NE/4 NE/4 = 718.62 feet or 43.55 rods, containing 0.49 acres
NW/4 NE/4 = 1322.56 feet or 80.16 rods, containing 0.91 acres
NE/4 NW/4 = 1131.37 feet or 68.57 rods, containing 0.78 acres



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Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

CABALLO 23 FED COM #708H-#709H FLOWLINE	REVISION: INT	DATE
DATE: 05/23/18		
FILE: EP_C23FC_708H-709H_FL_S26		
DRAWN BY: MML		
SHEET: 1 OF 1		

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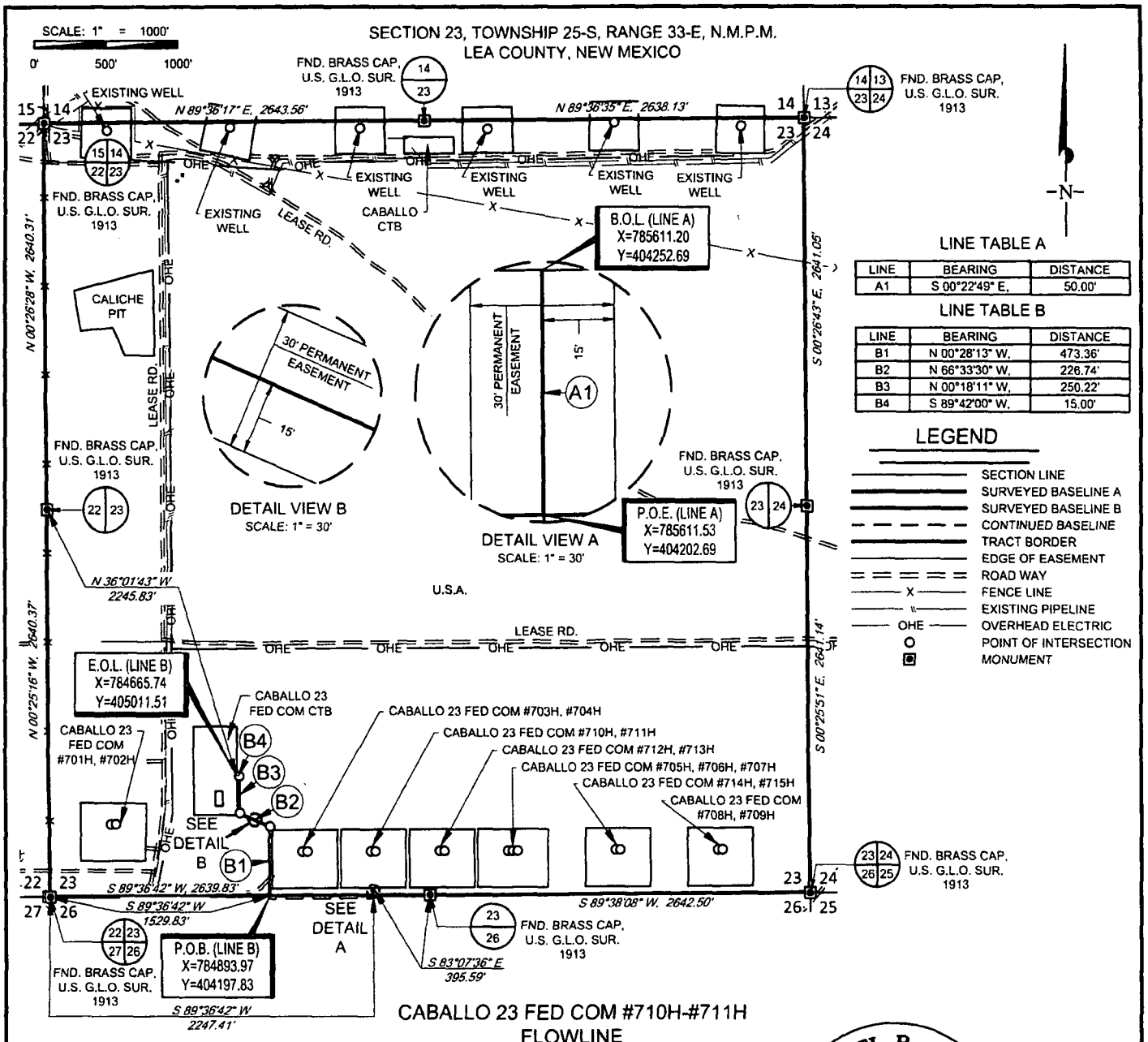

LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 00°22'49" E,	50.00'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 00°28'13" W,	473.36'
B2	N 66°33'30" W,	226.74'
B3	N 00°18'11" W,	250.22'
B4	S 89°42'00" W,	15.00'

LEGEND

- SECTION LINE
- SURVEYED BASELINE A
- SURVEYED BASELINE B
- *CONTINUED BASELINE*
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- *MONUMENT*

CABALLO 23 FED COM #710H-#711H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 1015.32 feet or 61.53 rods, containing 0.70 acres more or less.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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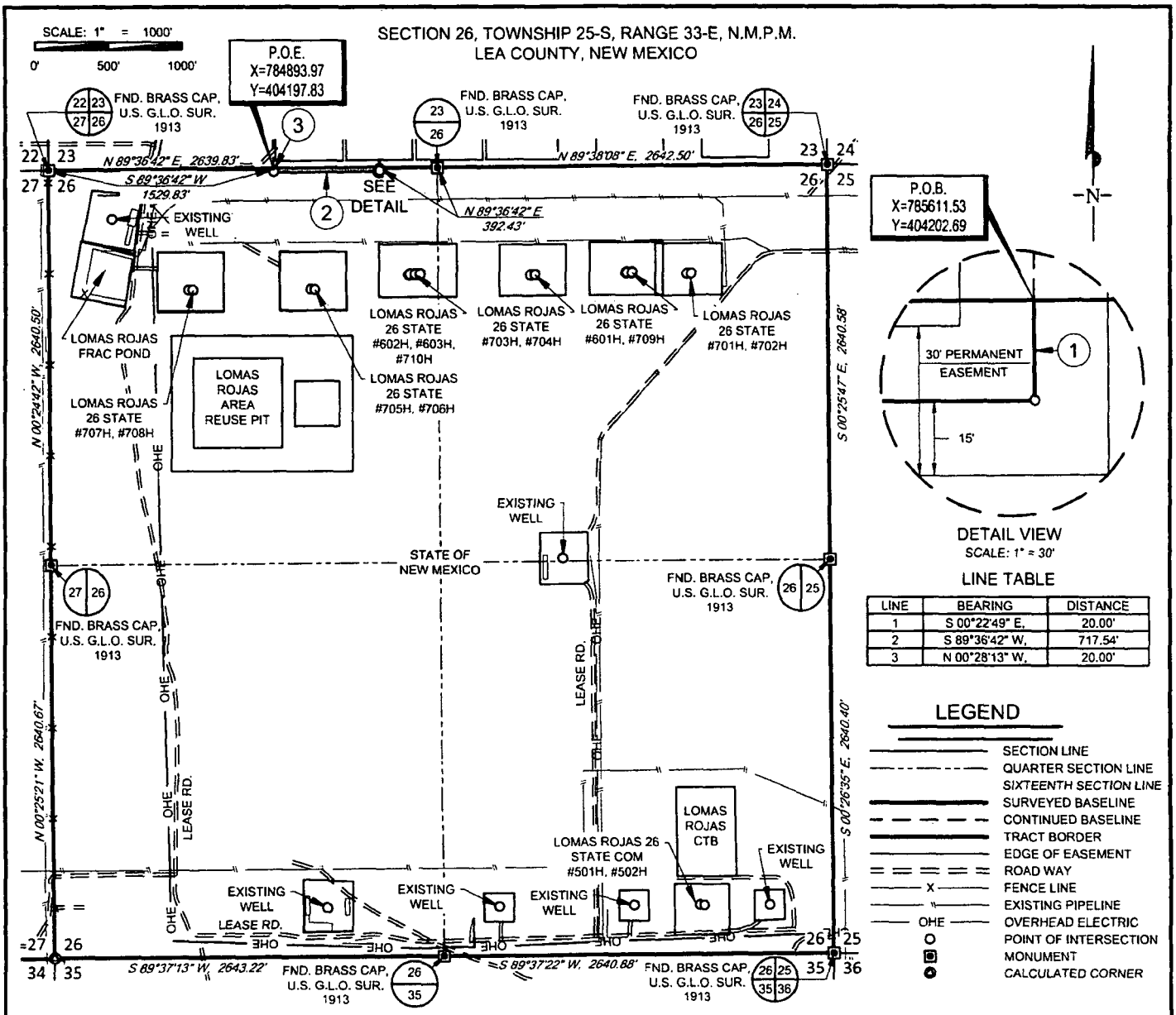

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°22'49" E,	20.00'
2	S 89°36'42" W,	717.54'
3	N 00°28'13" W,	20.00'

LEGEND

- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

CABALLO 23 FED COM #710H-#711H
FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 757.54 feet or 45.91 rods, containing 0.52 acres more or less and allocated by quarter quarters as follows:

NE/4 NW/4 = 757.54 feet or 45.91 rods, containing 0.52 acres

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
MAY 29, 2018

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CABALLO 23 FED COM #710H-#711H FLOWLINE	REVISION: INT	DATE
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DRAWN BY: MML		
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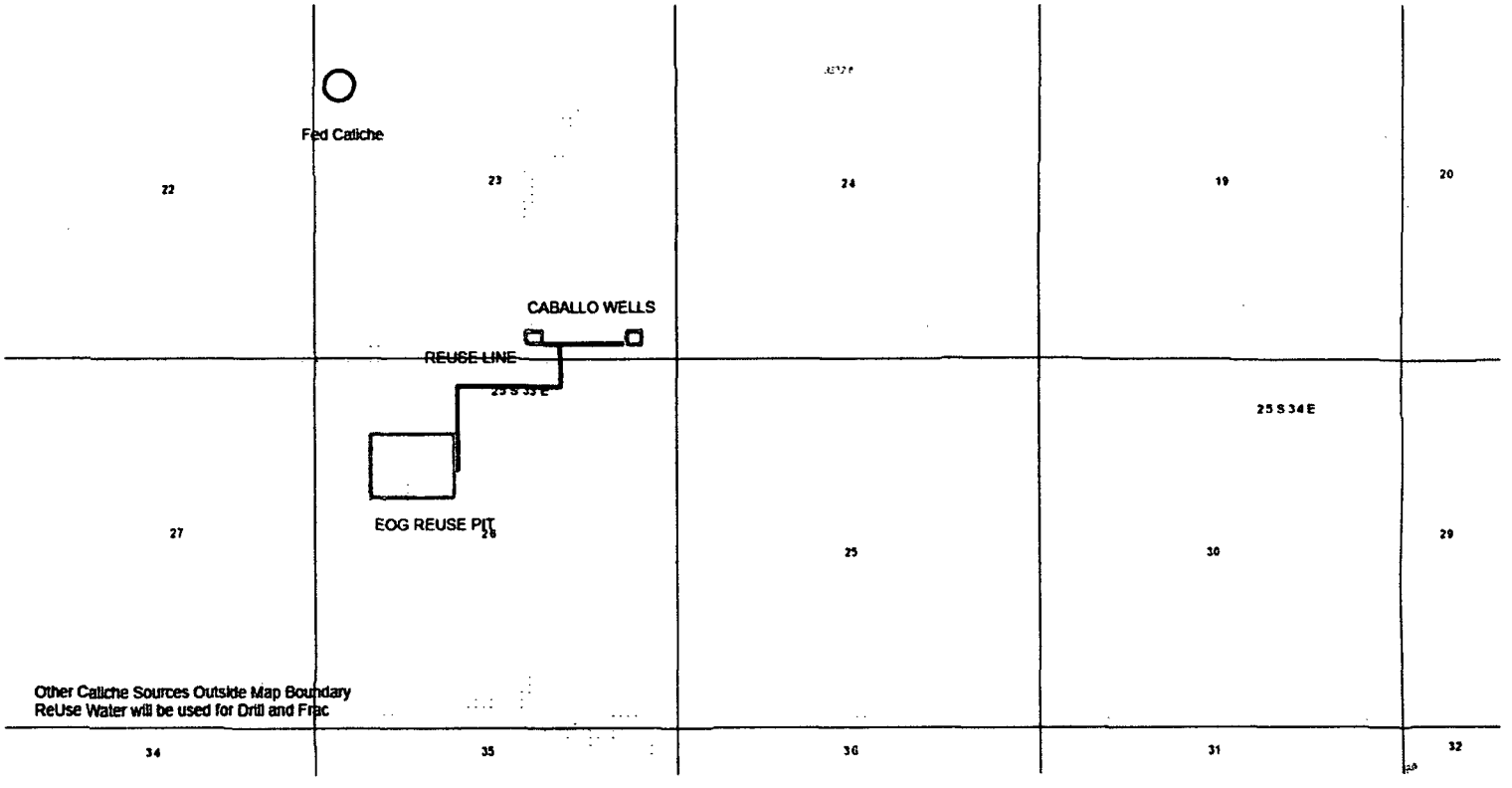
Caballo 23 Fed water and caliche map



Caballo 23 Fed water and caliche map

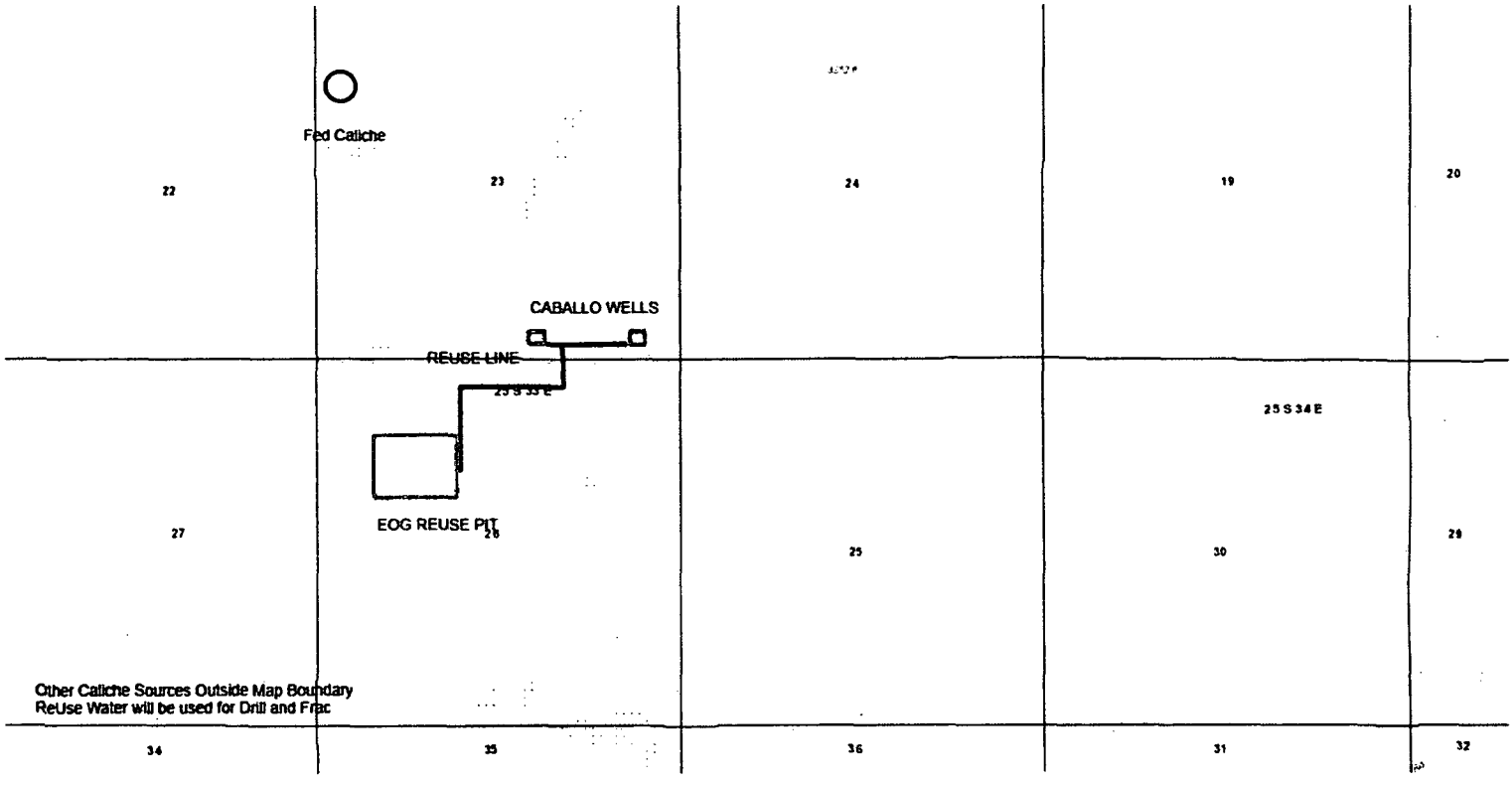


EXHIBIT 2B

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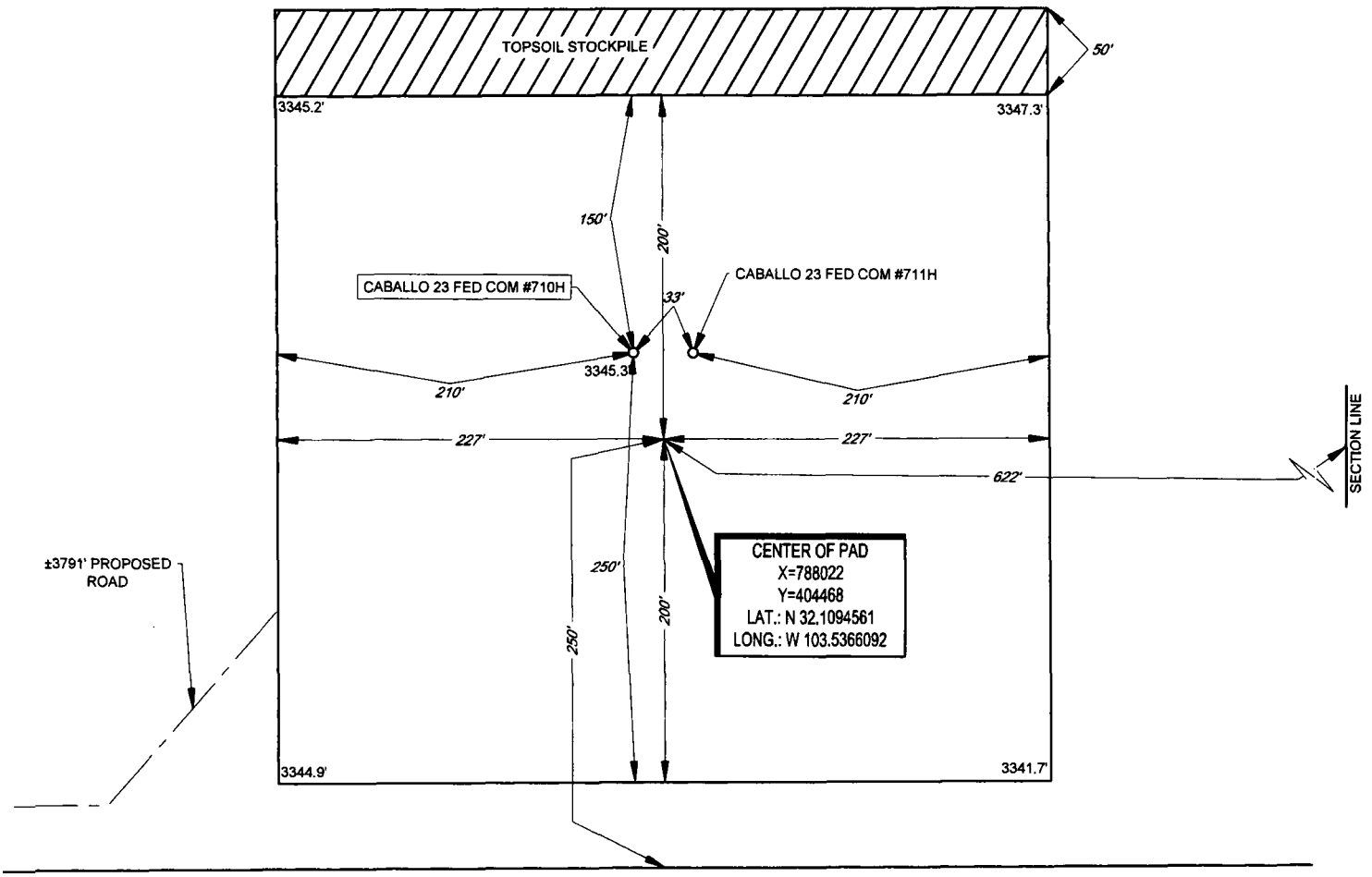
SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: CABALLO 23 FED #710H

#710H LATITUDE N 32.1095936 #710H LONGITUDE W 103.5366624

CENTER OF PAD IS 250' FSL & 622' FEL

LEGEND

SECTION LINE
PROPOSED ROAD

N

SCALE: 1" = 100'
0' 50' 100'

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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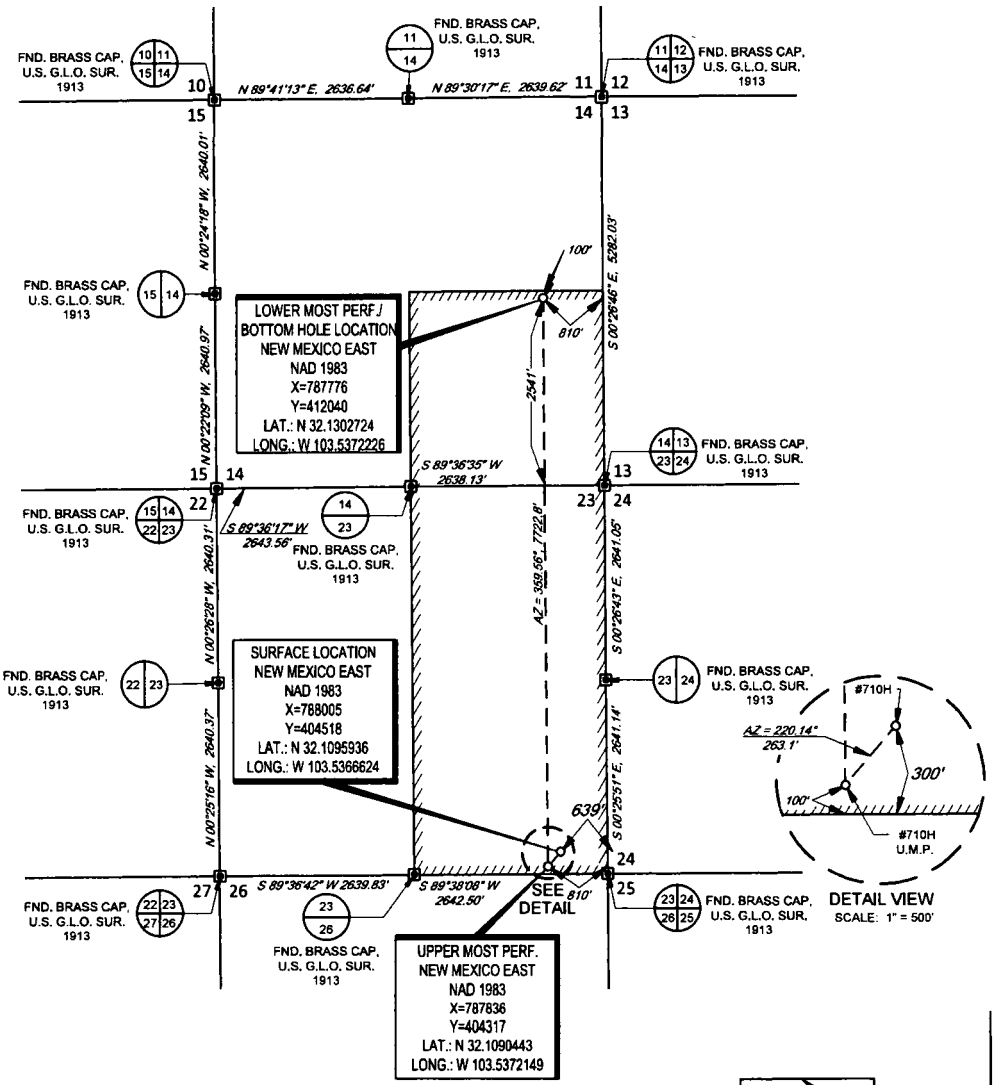
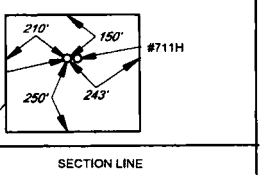
eog resources, inc.

EXHIBIT 2A

SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO





SCALE: 1" = 2000'
0' 1000' 2000'

DETAIL VIEW
SCALE: 1" = 300'

LEASE NAME & WELL NO.: CABALLO 23 FED #710H

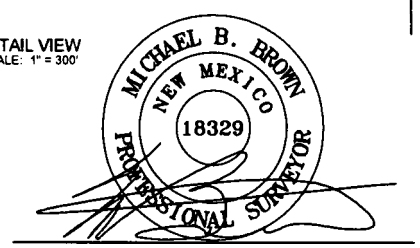
SECTION 23 TWP 25-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 300' FSL & 639' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-18 S. & NM-128, GO WEST ON NM-128 ±14.1 MILES, THENCE SOUTHWEST (LEFT) ON BATTLE AXE RD. ±10.5 MILES, THENCE NORTHWEST (RIGHT) ON LEASE RD. ±3.6 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±0.9 MILES, THENCE EAST (LEFT) ON A PROPOSED RD. ±3791 FEET TO A POINT ±258 FEET SOUTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY. AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



Michael Blake Brown, P.S. No. 18329
AUGUAT 17, 2018

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Exhibit 4

EOG Resources
Caballo 23 Fed #710H

Well Site Diagram

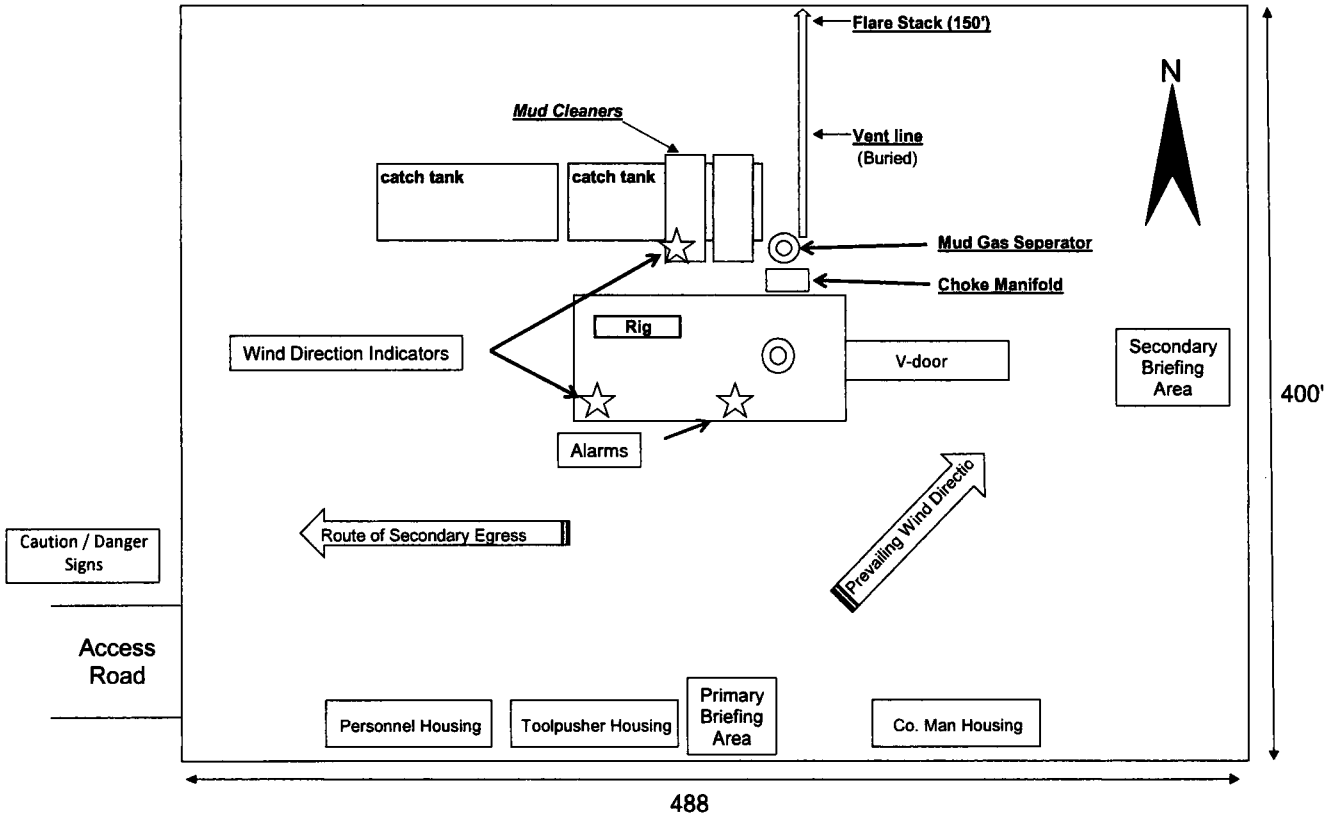
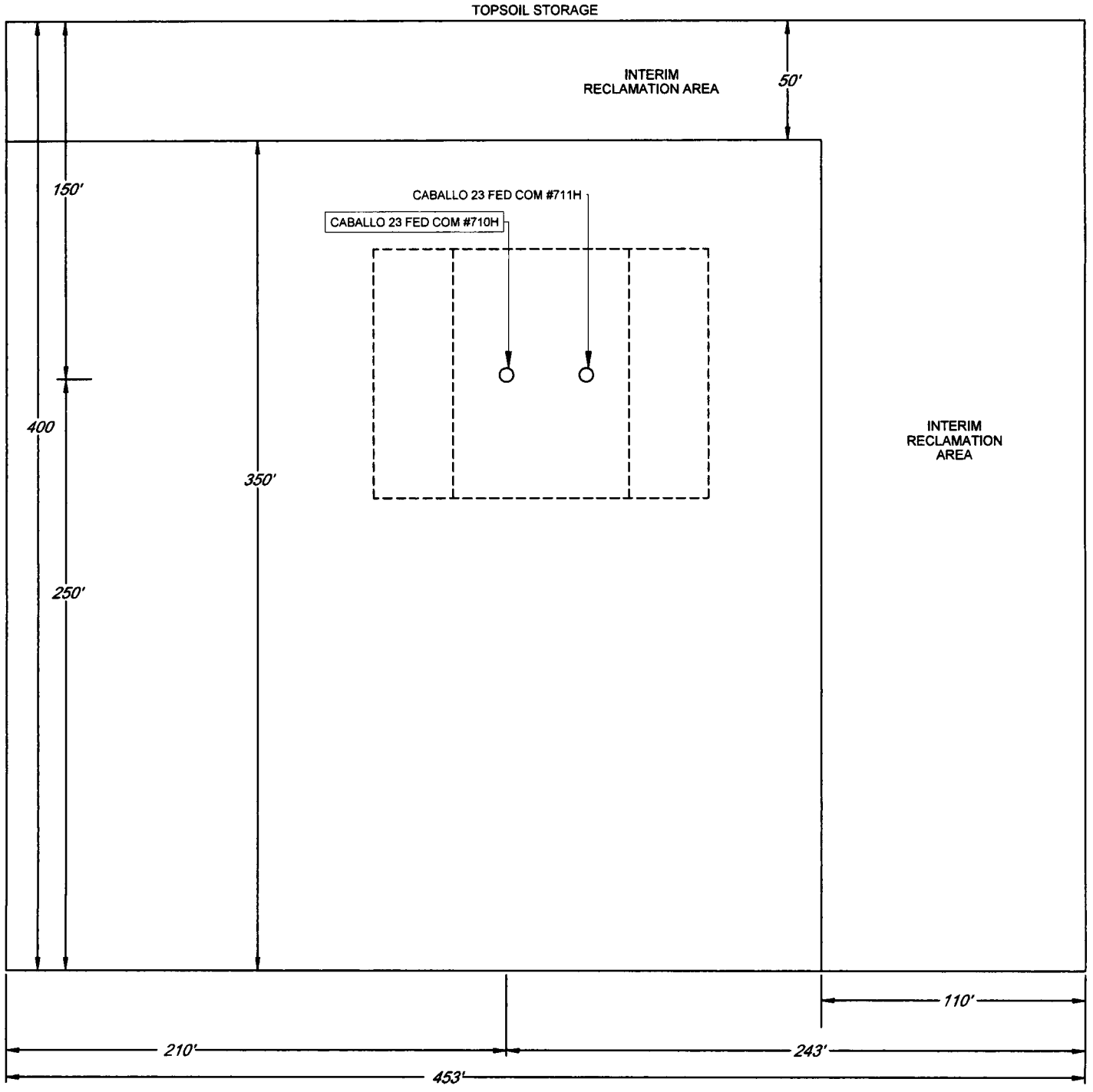


EXHIBIT 2C

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION 23, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 60'



LEASE NAME & WELL NO.: CABALLO 23 FED #710H

#710H LATITUDE N 32.1095936 #710H LONGITUDE W 103.5366624

S:\SURVEY\EOG_MIDLAND\CABALLO_23_FED_COM\FINAL_PRODUCTS\LO_CABALLO_23_FED_710H.DWG 8/17/2018 11:45:39 AM tstewart

Surface Use Plan of Operations

Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbance.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soils storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

1. Existing Roads

a. The existing access road route to the proposed project is depicted on Caballo 23 Fed 710H vicinity map. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan..

b. The existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.

c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

d. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

2. New or Reconstructed Access Roads

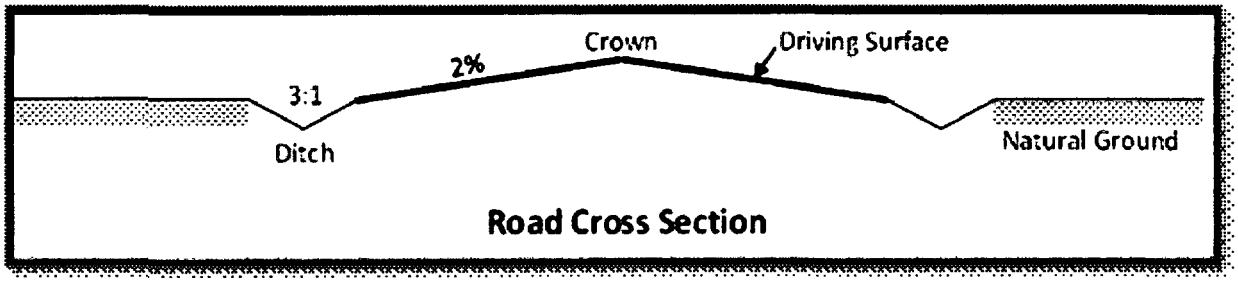
a. An access road will be needed for this proposed project. See the survey plat for the location of the access road.

b. The length of access road needed to be constructed for this proposed project is about 1610 feet.

c. The maximum driving width of the access road will be 24 feet. The maximum width of surface disturbance when constructing the access road will not exceed 25 feet. All areas outside of the driving surface will be revegetated.

d. The access road will be constructed with 6 inches of compacted caliche.

e. When the road travels on fairly level ground, the road will be crowned and ditched with a 2% slope from the tip of the road crown to the edge of the driving surface. The ditches will be 3 feet wide with 3:1 slopes. See Road Cross Section diagram below.



f. The access road will be constructed with a ditch on each side of the road.

g. The maximum grade for the access road will be 2 percent.

h. No turnouts will be constructed on the proposed access road.

i. No cattleguards will be installed for this proposed access road.

j. No BLM right-of-way grant is needed for the construction of this access road.

k. No culverts will be constructed for this proposed access road.

l. No low water crossings will be constructed for the access road.

m. Since the access road is on level ground, no lead-off ditches will be constructed for the proposed access road.

n. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management, will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

3. Location of Existing Wells

a. Caballo 23 Fed 710H radius map of the APD depicts all known wells within a one mile radius of the proposed well.

b. There is no other information regarding wells within a one mile radius.

4. Location of Existing and/or Proposed Production Facilities

a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.

b. If any type of production facilities are located on the well pad, they will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.

c. Production from the proposed well will be transported to the production facility named Caballo 23 Fed Com CTB. The location of the facility is as follows: NWNE 23-25S-33E.

d. A pipeline to transport production from the proposed well to the production facility will be installed.

i. We plan to install a 4 inch buried flex steel pipeline from the proposed well to the offsite production facility. The proposed length of the pipeline will be 4188 feet. The working pressure of the pipeline will be about 1400 psi. A 50 feet wide work area will be needed to install the buried pipeline. In areas where

blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

ii. Caballo 23 Fed Com infrastructure sketch depicts the proposed production pipeline route from the well to the existing production facility.

iii. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.

Additional Pipeline(s)

We propose to install 1 additional pipeline(s):

1. Buried gas lift gas pipeline:

a. We plan to install a 3 inch buried flex steel pipeline from the proposed well to the central battery. The proposed length of the pipeline will be 4188 feet. The working pressure of the pipeline will be about 1400 psi. A 50 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

b. Caballo 23 Fed Com infrastructure sketch depicts the proposed gas lift gas pipeline route.

c. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

Electric Line(s)

a. No electric line will be applied for with this APD.

5. Location and Types of Water

a. The source and location of the water supply are as follows: Water will be supplied from the frac pond as shown on the attached water source map This location will be drilled using a combination of water mud systems (outlined in the drilling program) The water will be obtained from commercial water stations in the area or recycled treated water and hauled to location by trucks or poly pipelines using existing and proposed roads depicted on the proposed existing access road maps In these cases where a poly pipeline is used to transport fresh water for drilling purposes_ proper authorizations will be secured by the contractor.

b. Caballo 23 Fed Com water source and caliche map depicts the proposed route for a 12 inch poly temporary (<90 days) water pipeline supplying water for drilling operations.

6. Construction Material

a. Caliche will be supplied from pits shown on the attached caliche source map.
Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal

Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows:
*□
-An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.
-An area will be used within the proposed well site dimensions to excavate caliche.
Subsoil will be removed and stockpiled within the surveyed well pad dimensions.
-Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions.
-Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).
-Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.
*□
In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

7. Methods for Handling Waste

a. Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.

b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.

e. The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

8. Ancillary Facilities

a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

a. The following information is presented in the well site survey plat or diagram:

i. reasonable scale (near 1":50')
ii. well pad dimensions
iii. well pad orientation
iv. drilling rig components
v. proposed access road
vi. elevations of all points
vii. topsoil stockpile

viii. reserve pit location/dimensions if applicable

ix. other disturbances needed (flare pit, stinger, frac farm pad, etc.)

x. existing structures within the 600' x 600' archaeoligical surveyed area (pipelines, electric lines, well pads, etc

b. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.

c. A title of a well site diagram is Caballo 23 Fed Com 710H rig layout. This diagram depicts the rig layout.

d. Topsoil Salvaging

i. Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

10. Plans for Surface Reclamation

Reclamation Objectives

i. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.

ii. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.

iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.

v. Interim reclamation will be performed on the well site after the well is drilled and completed. Caballo 23 Fed 710H interim reclamation depicts the location and dimensions of the planned interim reclamation for the well site.

Interim Reclamation Procedures (If performed)

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as

possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Final Reclamation (well pad, buried pipelines, etc.)

1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

a. The surface ownership of the proposed project is federal.

12. Other Information

a. An onsite meeting was conducted 5/04/18.
We plan to use 2, 12-inch lay flat hoses to transport water with an option to use 7, 4-inch poly lines for drilling and frac operations.

We are asking for 2 associated pipelines all depicted on the attached Caballo 23 Fed Com infrastructure sketch:
One 3-inch buried flex steel gas lift line servicing wells 705 thru 711.
One 4-inch buried flex steel production flowline per well.
The well is planned to be produced using gas lift as the artificial lift method.
Produced water will be transported via pipeline to the EOG produced water gathering system.

This well is an addition to a previously reviewed area.

13. Maps and Diagrams

Caballo 23 Fed 710H vicinity map - Existing Road
Caballo 23 Fed 710H radius map - Wells Within One Mile
Caballo 23 Fed Com infrastructure sketch - Production Pipeline
Caballo 23 Fed Com infrastructure sketch - gas lift gas Pipeline
Caballo 23 Fed Com water source and caliche map - Drilling Water Pipeline
Caballo 23 Fed 710H rig layout - Well Site Diagram
Caballo 23 Fed 710H interim reclamation - Interim Reclamation

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

01/29/2019

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

01/29/2019

APD ID: 10400033183 **Submission Date:** 08/30/2018

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3345	0	0	ALLUVIUM	NONE	No
2	RUSTLER	2298	1047	1047	ANHYDRITE	NONE	No
3	TOP SALT	1905	1440	1440	SALT	NONE	No
4	BASE OF SALT	-1536	4881	4881	SALT	NONE	No
5	LAMAR	-1681	5026	5026	LIMESTONE	NONE	No
6	BELL CANYON	-1822	5167	5167	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2832	6177	6177	SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON	-4398	7743	7743	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-5869	9214	9214	LIMESTONE	NONE	No
10	FIRST BONE SPRING SAND	-6894	10239	10239	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-7419	10764	10764	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 3RD	-8524	11869	11869	SANDSTONE	NATURAL GAS,OIL	No
13	WOLFCAMP	-8965	12310	12310	SHALE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: EOG RESOURCES INCORPORATED

Well Name: CABALLO 23 FED **Well Number:** 710H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	2541	FSL	810	FEL	25S	33E	14	Aliquot NESE	32.1302724	-103.5372226	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 108503	-9108	20026	12453
BHL Leg #1	2541	FSL	810	FEL	25S	33E	14	Aliquot NESE	32.1302724	-103.5372226	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 108503	-9108	20026	12453