

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD

OCT 22 2019

RECEIVED

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM062932
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator EOG RESOURCES INCORPORATED (7377)		8. Lease Name and Well No. REBEL 31 FED 705H (726249)
3a. Address 1111 Bagby Sky Lobby2 Houston TX 77002	3b. Phone No. (include area code) (713)651-7000	9. API Well No. 30-025-46461
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface LOT 3 / 310 FSL / 2009 FWL / LAT 32.0011442 / LONG -103.4086386 At proposed prod. zone NENW / 100 FNL / 2010 FWL / LAT 32.0212857 / LONG -103.4086339		10. Field and Pool, or Exploratory PERMIAN / ANTELOPE RIDGE; WOLFC.
11. Sec., T. R. M. or Blk. and Survey or Area SEC 31 / T26S / R35E / NMP		
14. Distance in miles and direction from nearest town or post office* 13 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 863.68	17. Spacing Unit dedicated to this well 475.57
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 420 feet	19. Proposed Depth 12645 feet / 20031 feet	20. BLM/BIA Bond No. in file FED: NM2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3195 feet	22. Approximate date work will start* 07/01/2019	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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Stan Wagner / Ph: (432)253-9685	Date 12/04/2018
Title Regulatory Advisor		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 10/18/2019
Title Assistant Field Manager Lands & Minerals		
Office 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.

OCP Rec 10/22/19

APPROVED WITH CONDITIONS

10/25/19

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 well, 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 directionally 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 well 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 will 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 collects this information to allow 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

1. SHL: LOT 3 / 310 FSL / 2009 FWL / TWSP: 26S / RANGE: 35E / SECTION: 31 / LAT: 32.0011442 / LONG: -103.4086386 (TVD: 0 feet, MD: 0 feet)
PPP: LOT 3 / 100 FSL / 2010 FWL / TWSP: 26S / RANGE: 35E / SECTION: 31 / LAT: 32.0005671 / LONG: -103.4086339 (TVD: 12380 feet, MD: 12391 feet)
BHL: NENW / 100 FNL / 2010 FWL / TWSP: 26S / RANGE: 35E / SECTION: 30 / LAT: 32.0212857 / LONG: -103.4086339 (TVD: 12645 feet, MD: 20031 feet)

BLM Point of Contact

Name: Candy Vigil

Title: Admin Support Assistant

Phone: 5752345982

Email: cvigil@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.

Approval Date: 10/18/2019

(Form 3160-3, page 4)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES, INC.
LEASE NO.:	NMNM062932
LOCATION:	Section 31, T.26 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	REBEL 31 FED 704H
SURFACE HOLE FOOTAGE:	310'S & 1976'/W
BOTTOM HOLE FOOTAGE	100'/N & 1590'/W

WELL NAME & NO.:	REBEL 31 FED 705H
SURFACE HOLE FOOTAGE:	310'S & 2009'/W
BOTTOM HOLE FOOTAGE	100'/N & 2010'/W

WELL NAME & NO.:	REBEL 31 FED 706H
SURFACE HOLE FOOTAGE:	310'S & 2042'/W
BOTTOM HOLE FOOTAGE	100'/N & 2430'/W

COA

H2S	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

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.

- 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

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)

☒ **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

1. 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.
2. 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.

3. The record of the drilling rate along with the GR/N well log 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 integrity 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 integrity 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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

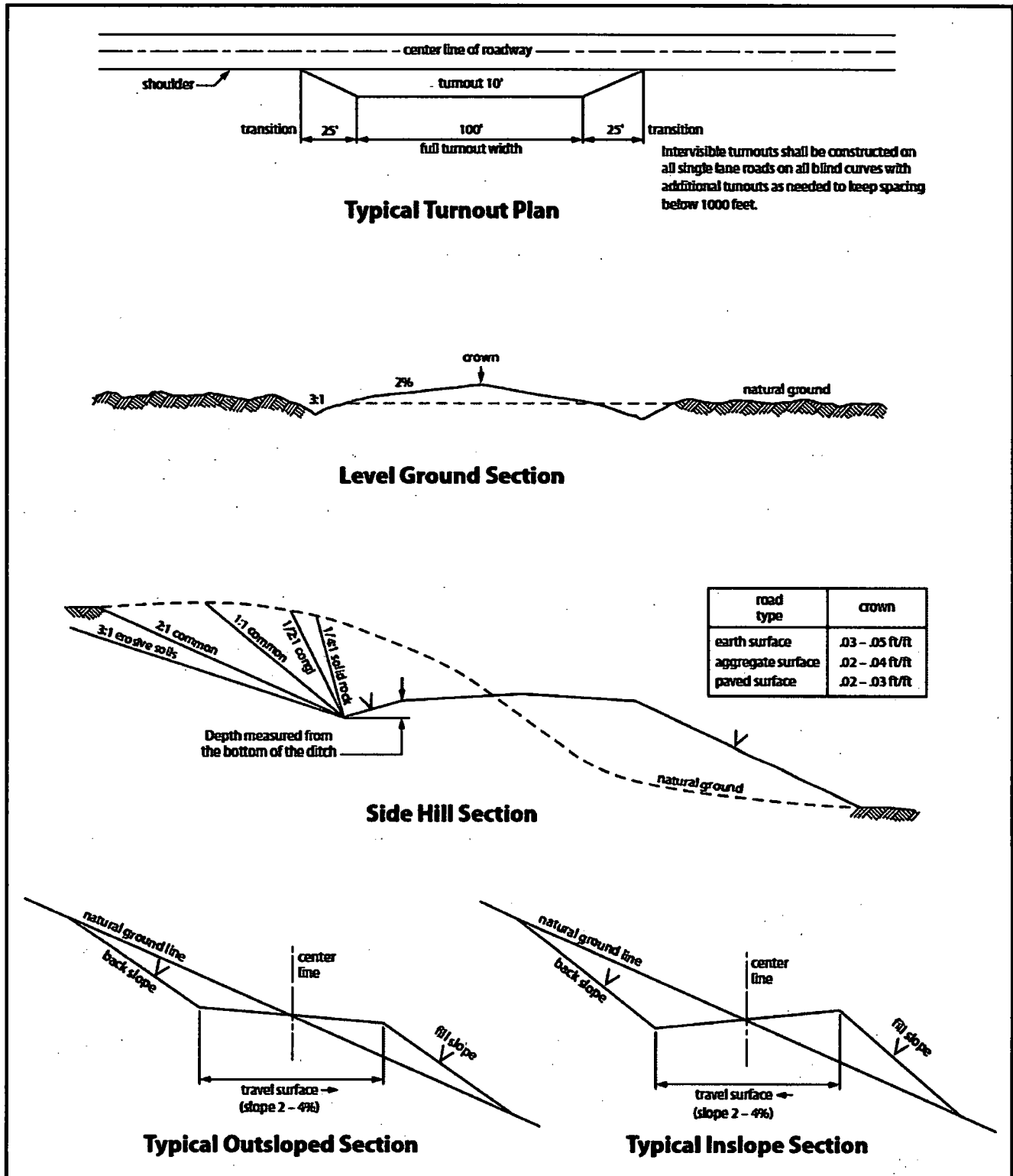


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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.

<input type="checkbox"/> seed mixture 1	<input type="checkbox"/> seed mixture 3
<input type="checkbox"/> seed mixture 2	<input type="checkbox"/> seed mixture 4
<input checked="" type="checkbox"/> seed mixture 2/LPC	<input type="checkbox"/> 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.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities 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, geophysical exploration other than 3-D operations, and 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. 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 ft. from the source of the noise.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, 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 activity of 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. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, 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, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the 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 the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.
9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
10. 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.
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. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. 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. Signs will be maintained in a legible condition for the life of the pipeline.
14. 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. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
15. Any cultural and/or paleontological resource (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 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.

16. 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, powerline 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.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

- a. **Lesser Prairie-Chicken:** Oil and gas activities 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 and 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. Normal vehicle use on existing roads will not be restricted.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent,

conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (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.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

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, geophysical exploration other than 3-D operations, and 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 ft. from the source of the noise.

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 for LPC Sand/Shinnery Sites

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 shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall 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). 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. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

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1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,050'
Tamarisk Anhydrite	1,165'
Top of Salt	1,337'
Base of Salt	5,160'
Lamar	5,390'
Bell Canyon	5,421'
Cherry Canyon	6,345'
Brushy Canyon	7,909'
Bone Spring Lime	9,207'
1 st Bone Spring Sand	10,545'
2 nd Bone Spring Shale	10,712'
2 nd Bone Spring Sand	11,062'
3 rd Bone Spring Carb	11,533'
3 rd Bone Spring Sand	12,128'
Wolfcamp	12,530'
TD	12,645'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,345'	Oil
Brushy Canyon	7,909'	Oil
1 st Bone Spring Sand	10,545'	Oil
2 nd Bone Spring Shale	10,712'	Oil
2 nd Bone Spring Sand	11,062'	Oil
3 rd Bone Spring Carb	11,533'	Oil
3 rd Bone Spring Sand	12,128'	Oil
Wolfcamp	12,530'	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 9.625" casing at 1,200' and circulating cement back to surface.

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4. CASING PROGRAM

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0' - 1,200'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' - 11,640'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' - 20,031'	5.5"	17#	HCP-110	LTC	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.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG Resources also requests approval to implement Casing Design B (pg. 10-11). BLM will be notified of elected design at spud.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,200'	400	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	300	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
11,640'	300	9.0	3.5	Class C + 5% Gypsum + 3% CaCl ₂ (TOC @ Surface)
	550	14.4	1.20	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P
20,031'	800	14.2	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,140')

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

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preventer (10,000-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. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

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

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

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

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

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

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,200'	Fresh - Gel	8.6-8.8	28-34	N/c
1,200' – 11,640'	Brine	10.0-10.2	28-34	N/c
11,640' – 12,171	Oil Base	8.7-9.4	58-68	N/c - 6
12,171 – 20,031' 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.

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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) H₂S 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 9,195 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.

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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 9-5/8" surface casing, a 9-5/8" 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.

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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/Escapes packs — 4 packs shall be stored on the rig floor with 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.

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- **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.

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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:

David Dominique Cell (985) 518-5839

Mike Vann Cell (817) 980-5507

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

Domingo Lopez Office (432) 686-3702

Cell (432) 215-9452

H&P Drilling

H&P Drilling Office (432) 563-5757

H&P 651 Drilling Rig Rig (903) 509-7131

Tool Pusher:

Johnathan Craig Cell (817) 760-6374

Brad Garrett

Safety

Brian Chandler (HSE Manager) Office (432) 686-3695

Cell (817) 239-0251

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310' FSL
2,009' FWL
Section 31
T-26-S, R-35-E

Proposed Wellbore
Design A

KB: 3,220'
GL: 3,195'

API: 30-025-*****

Bit Size: 12-1/4"

9-5/8", 40#, J-55, LTC 0' - 1,200'

Bit Size: 8-3/4"

7-5/8", 29.7#, HCP-110, FXL @ 0' -
11,640'

TOC: 11,140'

Bit Size: 6-3/4"

5-1/2", 17#, HCP-110, LTC @ 0' - 20,031'

KOP: 12,171

Lateral: 20,031' MD, 12,645' TVD
Upper Most Perf:
100' FSL & 2,010' FWL Sec. 31
Lower Most Perf:
100' FNL & 2,010' FWL Sec. 30
BH Location: 100' FNL & 2,010' FWL
Section 30
T-26-S, R-35-E

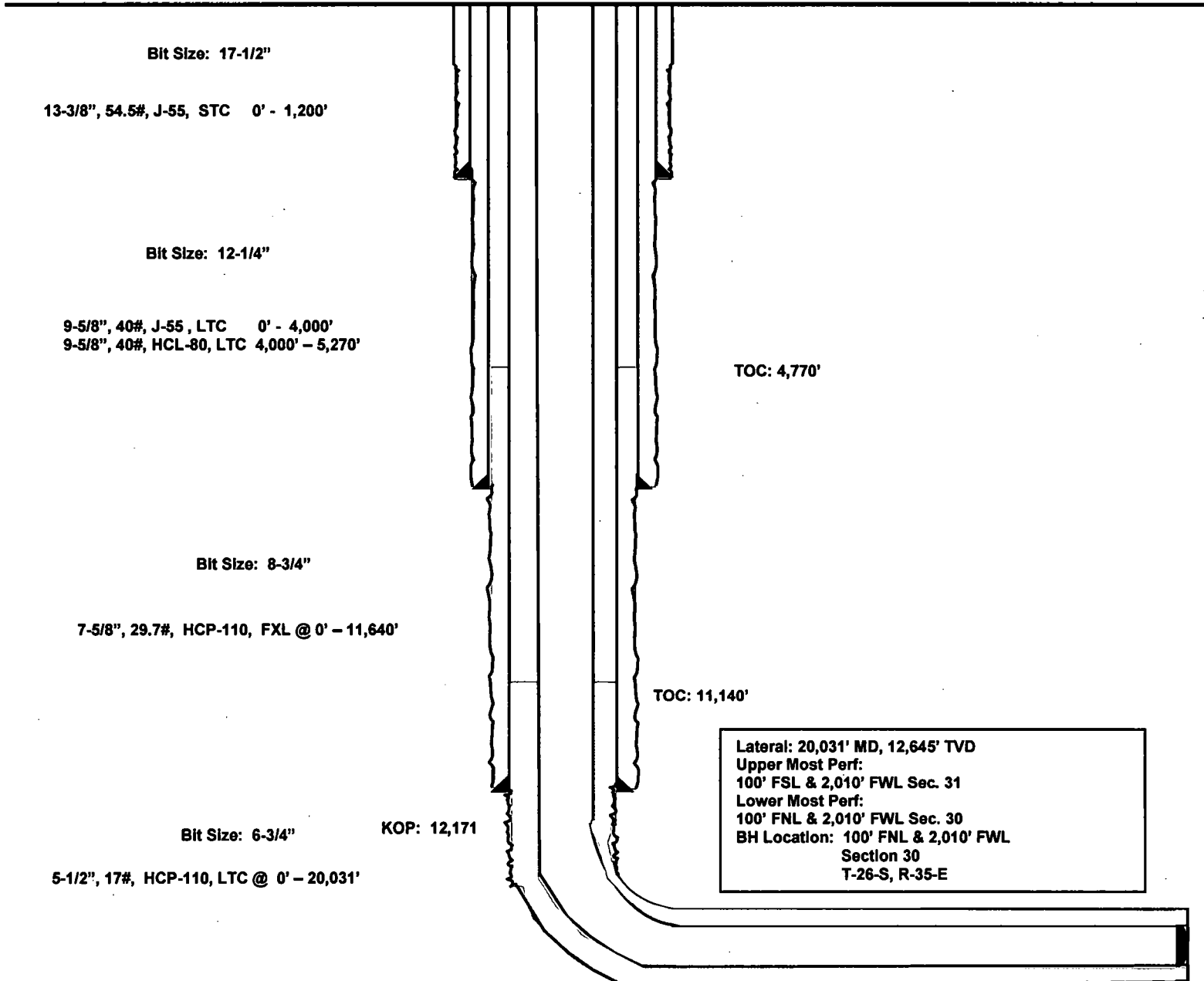
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310' FSL
2,009' FWL
Section 31
T-26-S, R-35-E

Proposed Wellbore
Design B

KB: 3,220'
GL: 3,195'

API: 30-025-*****



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Design B

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0' - 1,200'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' - 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,270'	9.625"	40#	HCL-80	LTC	1.125	1.25	1.60
8.75"	0' - 11,640'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' - 20,031'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /sk	Slurry Description
1,200'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl ₂ (TOC @ Surface)
	333	14.8	1.35	Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate + 2.0% KCl (1.06 lb/sk)
5,270'	692	12.7	2.22	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	303	14.8	1.32	Tail: Class C + 0.13% C-20
11,640'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,770')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
20,031'	950	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,140')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,200'	Fresh - Gel	8.6-8.8	28-34	N/c
1,200' - 5,270'	Brine	10.0-10.2	28-34	N/c
5,270' - 11,640'	Oil Base	8.7-9.4	58-68	N/c - 6
11,640' - 20,031' Lateral	Oil Base	10.0-11.5	58-68	3 - 6



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Rebel 31 Fed Com

#705H

OH

Plan: Plan #0.1

Standard Planning Report

13 November, 2018

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #705H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3220.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3220.0usft
Site:	Rebel 31 Fed Com	North Reference:	Grid
Well:	#705H	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	Rebel 31 Fed Com				
Site Position:		Northing:	365,370.00 usft	Latitude:	32° 0' 4.113 N
From:	Map	Easting:	826,691.00 usft	Longitude:	103° 24' 46.112 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	#705H				
Well Position	+N/-S	12.0 usft	Northing:	365,382.00 usft	Latitude: 32° 0' 4.123 N
	+E/-W	1,293.0 usft	Easting:	827,984.00 usft	Longitude: 103° 24' 31.096 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level: 3,195.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/1/2018	6.71	59.87	47,683.10845703

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	359.52

Plan Survey Tool Program	Date	11/1/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,031.0 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	
3,082.0	1.64	179.34	3,082.0	-1.2	0.0	2.00	2.00	0.00	179.34	
12,089.2	1.64	179.34	12,085.5	-258.8	3.0	0.00	0.00	0.00	0.00	
12,171.2	0.00	0.00	12,167.5	-260.0	3.0	2.00	-2.00	0.00	180.00	KOP(Rebel 31 Fed Co
12,921.2	90.00	359.52	12,645.0	217.4	-1.0	12.00	12.00	-0.06	359.52	
20,031.0	90.00	359.52	12,645.0	7,327.0	-61.0	0.00	0.00	0.00	0.00	PBHL(Rebel 31 Fed C



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #705H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3220.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3220.0usft
Site:	Rebel 31 Fed Coin	North Reference:	Grid
Well:	#705H	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
3,082.0	1.64	179.34	3,082.0	-1.2	0.0	-1.2	2.00	2.00	0.00
3,100.0	1.64	179.34	3,100.0	-1.7	0.0	-1.7	0.00	0.00	0.00
3,200.0	1.64	179.34	3,199.9	-4.5	0.1	-4.5	0.00	0.00	0.00
3,300.0	1.64	179.34	3,299.9	-7.4	0.1	-7.4	0.00	0.00	0.00
3,400.0	1.64	179.34	3,399.9	-10.3	0.1	-10.3	0.00	0.00	0.00
3,500.0	1.64	179.34	3,499.8	-13.1	0.2	-13.1	0.00	0.00	0.00
3,600.0	1.64	179.34	3,599.8	-16.0	0.2	-16.0	0.00	0.00	0.00
3,700.0	1.64	179.34	3,699.7	-18.9	0.2	-18.9	0.00	0.00	0.00
3,800.0	1.64	179.34	3,799.7	-21.7	0.3	-21.7	0.00	0.00	0.00
3,900.0	1.64	179.34	3,899.7	-24.6	0.3	-24.6	0.00	0.00	0.00
4,000.0	1.64	179.34	3,999.6	-27.4	0.3	-27.4	0.00	0.00	0.00
4,100.0	1.64	179.34	4,099.6	-30.3	0.3	-30.3	0.00	0.00	0.00
4,200.0	1.64	179.34	4,199.5	-33.2	0.4	-33.2	0.00	0.00	0.00
4,300.0	1.64	179.34	4,299.5	-36.0	0.4	-36.0	0.00	0.00	0.00
4,400.0	1.64	179.34	4,399.4	-38.9	0.4	-38.9	0.00	0.00	0.00
4,500.0	1.64	179.34	4,499.4	-41.7	0.5	-41.7	0.00	0.00	0.00
4,600.0	1.64	179.34	4,599.4	-44.6	0.5	-44.6	0.00	0.00	0.00
4,700.0	1.64	179.34	4,699.3	-47.5	0.5	-47.5	0.00	0.00	0.00
4,800.0	1.64	179.34	4,799.3	-50.3	0.6	-50.3	0.00	0.00	0.00
4,900.0	1.64	179.34	4,899.2	-53.2	0.6	-53.2	0.00	0.00	0.00
5,000.0	1.64	179.34	4,999.2	-56.0	0.6	-56.0	0.00	0.00	0.00
5,100.0	1.64	179.34	5,099.2	-58.9	0.7	-58.9	0.00	0.00	0.00
5,200.0	1.64	179.34	5,199.1	-61.8	0.7	-61.8	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Rebel 31 Fed Com
 Well: #705H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3220.0usft
 MD Reference: KB = 25 @ 3220.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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	1.64	179.34	5,299.1	-64.6	0.7	-64.6	0.00	0.00	0.00
5,400.0	1.64	179.34	5,399.0	-67.5	0.8	-67.5	0.00	0.00	0.00
5,500.0	1.64	179.34	5,499.0	-70.3	0.8	-70.3	0.00	0.00	0.00
5,600.0	1.64	179.34	5,599.0	-73.2	0.8	-73.2	0.00	0.00	0.00
5,700.0	1.64	179.34	5,698.9	-76.1	0.9	-76.1	0.00	0.00	0.00
5,800.0	1.64	179.34	5,798.9	-78.9	0.9	-78.9	0.00	0.00	0.00
5,900.0	1.64	179.34	5,898.8	-81.8	0.9	-81.8	0.00	0.00	0.00
6,000.0	1.64	179.34	5,998.8	-84.6	1.0	-84.6	0.00	0.00	0.00
6,100.0	1.64	179.34	6,098.8	-87.5	1.0	-87.5	0.00	0.00	0.00
6,200.0	1.64	179.34	6,198.7	-90.4	1.0	-90.4	0.00	0.00	0.00
6,300.0	1.64	179.34	6,298.7	-93.2	1.1	-93.2	0.00	0.00	0.00
6,400.0	1.64	179.34	6,398.6	-96.1	1.1	-96.1	0.00	0.00	0.00
6,500.0	1.64	179.34	6,498.6	-98.9	1.1	-99.0	0.00	0.00	0.00
6,600.0	1.64	179.34	6,598.5	-101.8	1.2	-101.8	0.00	0.00	0.00
6,700.0	1.64	179.34	6,698.5	-104.7	1.2	-104.7	0.00	0.00	0.00
6,800.0	1.64	179.34	6,798.5	-107.5	1.2	-107.5	0.00	0.00	0.00
6,900.0	1.64	179.34	6,898.4	-110.4	1.3	-110.4	0.00	0.00	0.00
7,000.0	1.64	179.34	6,998.4	-113.2	1.3	-113.3	0.00	0.00	0.00
7,100.0	1.64	179.34	7,098.3	-116.1	1.3	-116.1	0.00	0.00	0.00
7,200.0	1.64	179.34	7,198.3	-119.0	1.4	-119.0	0.00	0.00	0.00
7,300.0	1.64	179.34	7,298.3	-121.8	1.4	-121.8	0.00	0.00	0.00
7,400.0	1.64	179.34	7,398.2	-124.7	1.4	-124.7	0.00	0.00	0.00
7,500.0	1.64	179.34	7,498.2	-127.6	1.5	-127.6	0.00	0.00	0.00
7,600.0	1.64	179.34	7,598.1	-130.4	1.5	-130.4	0.00	0.00	0.00
7,700.0	1.64	179.34	7,698.1	-133.3	1.5	-133.3	0.00	0.00	0.00
7,800.0	1.64	179.34	7,798.1	-136.1	1.6	-136.1	0.00	0.00	0.00
7,900.0	1.64	179.34	7,898.0	-139.0	1.6	-139.0	0.00	0.00	0.00
8,000.0	1.64	179.34	7,998.0	-141.9	1.6	-141.9	0.00	0.00	0.00
8,100.0	1.64	179.34	8,097.9	-144.7	1.7	-144.7	0.00	0.00	0.00
8,200.0	1.64	179.34	8,197.9	-147.6	1.7	-147.6	0.00	0.00	0.00
8,300.0	1.64	179.34	8,297.9	-150.4	1.7	-150.4	0.00	0.00	0.00
8,400.0	1.64	179.34	8,397.8	-153.3	1.8	-153.3	0.00	0.00	0.00
8,500.0	1.64	179.34	8,497.8	-156.2	1.8	-156.2	0.00	0.00	0.00
8,600.0	1.64	179.34	8,597.7	-159.0	1.8	-159.0	0.00	0.00	0.00
8,700.0	1.64	179.34	8,697.7	-161.9	1.9	-161.9	0.00	0.00	0.00
8,800.0	1.64	179.34	8,797.6	-164.7	1.9	-164.7	0.00	0.00	0.00
8,900.0	1.64	179.34	8,897.6	-167.6	1.9	-167.6	0.00	0.00	0.00
9,000.0	1.64	179.34	8,997.6	-170.5	2.0	-170.5	0.00	0.00	0.00
9,100.0	1.64	179.34	9,097.5	-173.3	2.0	-173.3	0.00	0.00	0.00
9,200.0	1.64	179.34	9,197.5	-176.2	2.0	-176.2	0.00	0.00	0.00
9,300.0	1.64	179.34	9,297.4	-179.0	2.1	-179.1	0.00	0.00	0.00
9,400.0	1.64	179.34	9,397.4	-181.9	2.1	-181.9	0.00	0.00	0.00
9,500.0	1.64	179.34	9,497.4	-184.8	2.1	-184.8	0.00	0.00	0.00
9,600.0	1.64	179.34	9,597.3	-187.6	2.2	-187.6	0.00	0.00	0.00
9,700.0	1.64	179.34	9,697.3	-190.5	2.2	-190.5	0.00	0.00	0.00
9,800.0	1.64	179.34	9,797.2	-193.3	2.2	-193.4	0.00	0.00	0.00
9,900.0	1.64	179.34	9,897.2	-196.2	2.3	-196.2	0.00	0.00	0.00
10,000.0	1.64	179.34	9,997.2	-199.1	2.3	-199.1	0.00	0.00	0.00
10,100.0	1.64	179.34	10,097.1	-201.9	2.3	-201.9	0.00	0.00	0.00
10,200.0	1.64	179.34	10,197.1	-204.8	2.4	-204.8	0.00	0.00	0.00
10,300.0	1.64	179.34	10,297.0	-207.6	2.4	-207.7	0.00	0.00	0.00
10,400.0	1.64	179.34	10,397.0	-210.5	2.4	-210.5	0.00	0.00	0.00
10,500.0	1.64	179.34	10,497.0	-213.4	2.5	-213.4	0.00	0.00	0.00
10,600.0	1.64	179.34	10,596.9	-216.2	2.5	-216.2	0.00	0.00	0.00



Planning Report

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North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	1.64	179.34	10,696.9	-219.1	2.5	-219.1	0.00	0.00	0.00
10,800.0	1.64	179.34	10,796.8	-221.9	2.6	-222.0	0.00	0.00	0.00
10,900.0	1.64	179.34	10,896.8	-224.8	2.6	-224.8	0.00	0.00	0.00
11,000.0	1.64	179.34	10,996.7	-227.7	2.6	-227.7	0.00	0.00	0.00
11,100.0	1.64	179.34	11,096.7	-230.5	2.7	-230.5	0.00	0.00	0.00
11,200.0	1.64	179.34	11,196.7	-233.4	2.7	-233.4	0.00	0.00	0.00
11,300.0	1.64	179.34	11,296.6	-236.3	2.7	-236.3	0.00	0.00	0.00
11,400.0	1.64	179.34	11,396.6	-239.1	2.8	-239.1	0.00	0.00	0.00
11,500.0	1.64	179.34	11,496.5	-242.0	2.8	-242.0	0.00	0.00	0.00
11,600.0	1.64	179.34	11,596.5	-244.8	2.8	-244.8	0.00	0.00	0.00
11,700.0	1.64	179.34	11,696.5	-247.7	2.9	-247.7	0.00	0.00	0.00
11,800.0	1.64	179.34	11,796.4	-250.6	2.9	-250.6	0.00	0.00	0.00
11,900.0	1.64	179.34	11,896.4	-253.4	2.9	-253.4	0.00	0.00	0.00
12,000.0	1.64	179.34	11,996.3	-256.3	3.0	-256.3	0.00	0.00	0.00
12,089.2	1.64	179.34	12,085.5	-258.8	3.0	-258.8	0.00	0.00	0.00
12,100.0	1.42	179.34	12,096.3	-259.1	3.0	-259.1	2.00	-2.00	0.00
12,171.2	0.00	0.00	12,167.5	-260.0	3.0	-260.0	2.00	-2.00	0.00
12,175.0	0.45	359.52	12,171.3	-260.0	3.0	-260.0	12.00	12.00	0.00
12,200.0	3.45	359.52	12,196.3	-259.1	3.0	-259.1	12.00	12.00	0.00
12,225.0	6.45	359.52	12,221.2	-257.0	3.0	-257.0	12.00	12.00	0.00
12,250.0	9.45	359.52	12,245.9	-253.5	2.9	-253.5	12.00	12.00	0.00
12,275.0	12.45	359.52	12,270.5	-248.8	2.9	-248.8	12.00	12.00	0.00
12,300.0	15.45	359.52	12,294.7	-242.7	2.9	-242.8	12.00	12.00	0.00
12,325.0	18.45	359.52	12,318.6	-235.4	2.8	-235.5	12.00	12.00	0.00
12,350.0	21.45	359.52	12,342.1	-226.9	2.7	-226.9	12.00	12.00	0.00
12,375.0	24.45	359.52	12,365.2	-217.2	2.6	-217.2	12.00	12.00	0.00
12,400.0	27.45	359.52	12,387.6	-206.2	2.5	-206.2	12.00	12.00	0.00
12,425.0	30.45	359.52	12,409.5	-194.1	2.4	-194.1	12.00	12.00	0.00
12,450.0	33.45	359.52	12,430.7	-180.9	2.3	-180.9	12.00	12.00	0.00
12,475.0	36.45	359.52	12,451.2	-166.6	2.2	-166.6	12.00	12.00	0.00
12,500.0	39.45	359.52	12,470.9	-151.2	2.1	-151.2	12.00	12.00	0.00
12,525.0	42.45	359.52	12,489.8	-134.8	1.9	-134.8	12.00	12.00	0.00
12,550.0	45.45	359.52	12,507.8	-117.5	1.8	-117.5	12.00	12.00	0.00
12,575.0	48.45	359.52	12,524.9	-99.2	1.6	-99.2	12.00	12.00	0.00
12,600.0	51.45	359.52	12,540.9	-80.1	1.5	-80.1	12.00	12.00	0.00
12,625.0	54.45	359.52	12,556.0	-60.1	1.3	-60.1	12.00	12.00	0.00
12,650.0	57.45	359.52	12,570.0	-39.4	1.1	-39.4	12.00	12.00	0.00
12,675.0	60.45	359.52	12,582.9	-18.0	1.0	-18.0	12.00	12.00	0.00
12,700.0	63.45	359.52	12,594.6	4.1	0.8	4.1	12.00	12.00	0.00
12,725.0	66.45	359.52	12,605.2	26.7	0.6	26.7	12.00	12.00	0.00
12,750.0	69.45	359.52	12,614.6	49.9	0.4	49.9	12.00	12.00	0.00
12,775.0	72.45	359.52	12,622.8	73.5	0.2	73.5	12.00	12.00	0.00
12,800.0	75.45	359.52	12,629.7	97.5	0.0	97.5	12.00	12.00	0.00
12,825.0	78.45	359.52	12,635.3	121.9	-0.2	121.9	12.00	12.00	0.00
12,850.0	81.45	359.52	12,639.7	146.5	-0.4	146.5	12.00	12.00	0.00
12,875.0	84.45	359.52	12,642.7	171.3	-0.6	171.3	12.00	12.00	0.00
12,900.0	87.45	359.52	12,644.5	196.2	-0.8	196.2	12.00	12.00	0.00
12,921.2	90.00	359.52	12,645.0	217.4	-1.0	217.4	12.00	12.00	0.00
13,000.0	90.00	359.52	12,645.0	296.2	-1.7	296.2	0.00	0.00	0.00
13,100.0	90.00	359.52	12,645.0	396.2	-2.5	396.2	0.00	0.00	0.00
13,200.0	90.00	359.52	12,645.0	496.2	-3.4	496.2	0.00	0.00	0.00
13,300.0	90.00	359.52	12,645.0	596.2	-4.2	596.2	0.00	0.00	0.00
13,400.0	90.00	359.52	12,645.0	696.2	-5.1	696.2	0.00	0.00	0.00
13,500.0	90.00	359.52	12,645.0	796.2	-5.9	796.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Rebel 31 Fed Com
 Well: #705H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #705H
 TVD Reference: KB = 25 @ 3220.0usft
 MD Reference: KB = 25 @ 3220.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
13,600.0	90.00	359.52	12,645.0	896.2	-6.8	896.2	0.00	0.00	0.00
13,700.0	90.00	359.52	12,645.0	996.2	-7.6	996.2	0.00	0.00	0.00
13,800.0	90.00	359.52	12,645.0	1,096.2	-8.4	1,096.2	0.00	0.00	0.00
13,900.0	90.00	359.52	12,645.0	1,196.2	-9.3	1,196.2	0.00	0.00	0.00
14,000.0	90.00	359.52	12,645.0	1,296.2	-10.1	1,296.2	0.00	0.00	0.00
14,100.0	90.00	359.52	12,645.0	1,396.2	-11.0	1,396.2	0.00	0.00	0.00
14,200.0	90.00	359.52	12,645.0	1,496.2	-11.8	1,496.2	0.00	0.00	0.00
14,300.0	90.00	359.52	12,645.0	1,596.2	-12.7	1,596.2	0.00	0.00	0.00
14,400.0	90.00	359.52	12,645.0	1,696.2	-13.5	1,696.2	0.00	0.00	0.00
14,500.0	90.00	359.52	12,645.0	1,796.2	-14.3	1,796.2	0.00	0.00	0.00
14,600.0	90.00	359.52	12,645.0	1,896.2	-15.2	1,896.2	0.00	0.00	0.00
14,700.0	90.00	359.52	12,645.0	1,996.2	-16.0	1,996.2	0.00	0.00	0.00
14,800.0	90.00	359.52	12,645.0	2,096.2	-16.9	2,096.2	0.00	0.00	0.00
14,900.0	90.00	359.52	12,645.0	2,196.2	-17.7	2,196.2	0.00	0.00	0.00
15,000.0	90.00	359.52	12,645.0	2,296.2	-18.6	2,296.2	0.00	0.00	0.00
15,100.0	90.00	359.52	12,645.0	2,396.2	-19.4	2,396.2	0.00	0.00	0.00
15,200.0	90.00	359.52	12,645.0	2,496.2	-20.2	2,496.2	0.00	0.00	0.00
15,300.0	90.00	359.52	12,645.0	2,596.2	-21.1	2,596.2	0.00	0.00	0.00
15,400.0	90.00	359.52	12,645.0	2,696.2	-21.9	2,696.2	0.00	0.00	0.00
15,500.0	90.00	359.52	12,645.0	2,796.1	-22.8	2,796.2	0.00	0.00	0.00
15,600.0	90.00	359.52	12,645.0	2,896.1	-23.6	2,896.2	0.00	0.00	0.00
15,700.0	90.00	359.52	12,645.0	2,996.1	-24.5	2,996.2	0.00	0.00	0.00
15,800.0	90.00	359.52	12,645.0	3,096.1	-25.3	3,096.2	0.00	0.00	0.00
15,900.0	90.00	359.52	12,645.0	3,196.1	-26.2	3,196.2	0.00	0.00	0.00
16,000.0	90.00	359.52	12,645.0	3,296.1	-27.0	3,296.2	0.00	0.00	0.00
16,100.0	90.00	359.52	12,645.0	3,396.1	-27.8	3,396.2	0.00	0.00	0.00
16,200.0	90.00	359.52	12,645.0	3,496.1	-28.7	3,496.2	0.00	0.00	0.00
16,300.0	90.00	359.52	12,645.0	3,596.1	-29.5	3,596.2	0.00	0.00	0.00
16,400.0	90.00	359.52	12,645.0	3,696.1	-30.4	3,696.2	0.00	0.00	0.00
16,500.0	90.00	359.52	12,645.0	3,796.1	-31.2	3,796.2	0.00	0.00	0.00
16,600.0	90.00	359.52	12,645.0	3,896.1	-32.1	3,896.2	0.00	0.00	0.00
16,700.0	90.00	359.52	12,645.0	3,996.1	-32.9	3,996.2	0.00	0.00	0.00
16,800.0	90.00	359.52	12,645.0	4,096.1	-33.7	4,096.2	0.00	0.00	0.00
16,900.0	90.00	359.52	12,645.0	4,196.1	-34.6	4,196.2	0.00	0.00	0.00
17,000.0	90.00	359.52	12,645.0	4,296.1	-35.4	4,296.2	0.00	0.00	0.00
17,100.0	90.00	359.52	12,645.0	4,396.1	-36.3	4,396.2	0.00	0.00	0.00
17,200.0	90.00	359.52	12,645.0	4,496.1	-37.1	4,496.2	0.00	0.00	0.00
17,300.0	90.00	359.52	12,645.0	4,596.1	-38.0	4,596.2	0.00	0.00	0.00
17,400.0	90.00	359.52	12,645.0	4,696.1	-38.8	4,696.2	0.00	0.00	0.00
17,500.0	90.00	359.52	12,645.0	4,796.1	-39.7	4,796.2	0.00	0.00	0.00
17,600.0	90.00	359.52	12,645.0	4,896.1	-40.5	4,896.2	0.00	0.00	0.00
17,700.0	90.00	359.52	12,645.0	4,996.1	-41.3	4,996.2	0.00	0.00	0.00
17,800.0	90.00	359.52	12,645.0	5,096.1	-42.2	5,096.2	0.00	0.00	0.00
17,900.0	90.00	359.52	12,645.0	5,196.1	-43.0	5,196.2	0.00	0.00	0.00
18,000.0	90.00	359.52	12,645.0	5,296.1	-43.9	5,296.2	0.00	0.00	0.00
18,100.0	90.00	359.52	12,645.0	5,396.1	-44.7	5,396.2	0.00	0.00	0.00
18,200.0	90.00	359.52	12,645.0	5,496.1	-45.6	5,496.2	0.00	0.00	0.00
18,300.0	90.00	359.52	12,645.0	5,596.0	-46.4	5,596.2	0.00	0.00	0.00
18,400.0	90.00	359.52	12,645.0	5,696.0	-47.2	5,696.2	0.00	0.00	0.00
18,500.0	90.00	359.52	12,645.0	5,796.0	-48.1	5,796.2	0.00	0.00	0.00
18,600.0	90.00	359.52	12,645.0	5,896.0	-48.9	5,896.2	0.00	0.00	0.00
18,700.0	90.00	359.52	12,645.0	5,996.0	-49.8	5,996.2	0.00	0.00	0.00
18,800.0	90.00	359.52	12,645.0	6,096.0	-50.6	6,096.2	0.00	0.00	0.00
18,900.0	90.00	359.52	12,645.0	6,196.0	-51.5	6,196.2	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #705H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3220.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3220.0usft
Site:	Rebel 31 Fed Com	North Reference:	Grid
Well:	#705H	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)
19,000.0	90.00	359.52	12,645.0	6,296.0	-52.3	6,296.2	0.00	0.00	0.00
19,100.0	90.00	359.52	12,645.0	6,396.0	-53.1	6,396.2	0.00	0.00	0.00
19,200.0	90.00	359.52	12,645.0	6,496.0	-54.0	6,496.2	0.00	0.00	0.00
19,300.0	90.00	359.52	12,645.0	6,596.0	-54.8	6,596.2	0.00	0.00	0.00
19,400.0	90.00	359.52	12,645.0	6,696.0	-55.7	6,696.2	0.00	0.00	0.00
19,500.0	90.00	359.52	12,645.0	6,796.0	-56.5	6,796.2	0.00	0.00	0.00
19,600.0	90.00	359.52	12,645.0	6,896.0	-57.4	6,896.2	0.00	0.00	0.00
19,700.0	90.00	359.52	12,645.0	6,996.0	-58.2	6,996.2	0.00	0.00	0.00
19,800.0	90.00	359.52	12,645.0	7,096.0	-59.1	7,096.2	0.00	0.00	0.00
19,900.0	90.00	359.52	12,645.0	7,196.0	-59.9	7,196.2	0.00	0.00	0.00
20,000.0	90.00	359.52	12,645.0	7,296.0	-60.7	7,296.2	0.00	0.00	0.00
20,031.0	90.00	359.52	12,645.0	7,327.0	-61.0	7,327.3	0.00	0.00	0.00

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(Rebel 31 Fed Com - plan hits target center - Point	0.00	0.00	12,167.5	-260.0	3.0	365,122.00	827,987.00	32° 0' 1.550 N	103° 24' 31.087 W
FTP(Rebel 31 Fed Com - plan misses target center by 163.4usft at 12575.0usft MD (12524.9 TVD, -99.2 N, 1.6 E) - Point	0.00	0.00	12,645.0	-210.0	3.0	365,172.00	827,987.00	32° 0' 2.045 N	103° 24' 31.082 W
PBHL(Rebel 31 Fed Cor - plan hits target center - Point	0.00	0.00	12,645.0	7,327.0	-61.0	372,709.00	827,923.00	32° 1' 16.630 N	103° 24' 31.077 W