

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 3001547354
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish 13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
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
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

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

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



(Continued on page 2)

*(Instructions on page 2)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 3001547354		² Pool Code 96718	³ Pool Name Loco Hills; Glorieta-Yeso
⁴ Property Code 328973	⁵ Property Name MR. SCOTT FEDERAL COM		⁶ Well Number 1H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.		⁹ Elevation 3767'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	12	17-S	30-E	-	1591	SOUTH	2382	EAST	EDDY

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	11	17-S	30-E	-	1840	SOUTH	2537	EAST	EDDY

¹² Dedicated Acres 160.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ LOWER MOST PERF./ BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1983 X=661441 Y=672023 LAT.: N 32.8468043 LONG.: W 103.9422534 SURFACE LOCATION NEW MEXICO EAST NAD 1983 X=666876 Y=671795 LAT.: N 32.8461226 LONG.: W 103.9245584 UPPER MOST PERF. NEW MEXICO EAST NAD 1983 X=666519 Y=672044 LAT.: N 32.8468100 LONG.: W 103.9257187	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>Tina Huerta</i> Date: 12/16/18 Printed Name: Tina Huerta E-mail Address: tina_huerta@egoresources.com
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief. Date of Survey: 08/16/2018 Signature and Seal: <i>[Signature]</i> Certificate Number:

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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: December 5, 2018

☒ Original

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

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple 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
Data Federal 1H		11-17S-30E	1289' FNL 651' FEL	500	0	
Data Federal 2H		11-17S-30E	1249' FNL 653' FEL	500	0	
Data Federal 3H		11-17S-30E	1209' FNL 654' FEL	500	0	
Bones Federal 4H		11-17S-30E	1284' FNL 501' FEL	500	0	
Bones Federal 5H		11-17S-30E	1244' FNL 503' FEL	500	0	
Bones Federal 6H		11-17S-30E	1204' FNL 504' FEL	500	0	
Mr. Scott Federal Com 1H		12-17S-30E	1567' FSL 2401' FEL	500	0	
La Forge Federal Com 2H		12-17S-30E	1591' FSL 2832' FEL	500	0	

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 DCP Midstream and will be connected to DCP Midstream low pressure gathering system located in Eddy County, New Mexico. It will require 27' of pipeline to connect the facility to low/high pressure gathering system. EOG provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, EOG and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in 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 DCP Midstream system at that time. Based on current information, it is EOG's 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.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES INC.
LEASE NO.:	NMLC0029339A
WELL NAME & NO.:	MR. SCOTT FED COM 1H
SURFACE HOLE FOOTAGE:	1591'S & 2382'E
BOTTOM HOLE FOOTAGE:	1840'S & 2537'E
LOCATION:	Section 12, T.17 S., R.30 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grayburg** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design

1. The 13-3/8 inch surface casing shall be set at approximately **400 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the 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 six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 7 X 5 ½ inch production casing is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Alternate Casing Design

3. The 13-3/8 inch surface casing shall be set at approximately **400 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
- a. If cement does not circulate to the 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 six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
4. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
5. The minimum required fill of cement behind the 7 X 5 ½ inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing 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. 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 **3000 (3M)** 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.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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 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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. 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.
- 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 not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - 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. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. 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 if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. 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

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.

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

JJP07142020

EOG RESOURCES, INC.
MR. SCOTT FEDERAL COM NO. 1H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	322'
Tansill	1,312'
Yates	1,479'
Seven Rivers	1,735'
Queen	2,380'
Grayburg	2,786'
San Andres	3,088'
Glorieta	4,585'
Yeso	4,651'
TD	10,046'

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

Rustler	322'	Fresh Water, Oil
Grayburg	2,786'	Oil
San Andres	3,088'	Oil
Glorieta	4,585'	Oil
Yeso	4,651'	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 400' and circulating cement back to surface.

4. CASING PROGRAM - NEW

EOG Resources requests approval of a contingency hole size and intermediate 9 5/8" casing string if water flow risk is deemed to be high. We request to have a contingency plan approved to drill out with either a 12 1/4" hole if water flow risk is high and the option to drill out with 8 3/4" if the water flow risk is determined to be low. Please see below for primary and contingency request.

Primary Hole & Casing String:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0'-400'	13.375"	48#	H-40/J-55	STC	1.125	1.25	1.60
8.75"	0' -5,058'	7"	29#	L-80	BTC	1.125	1.25	1.60
8.75"	5,058' - 10,046'	5 1/2"	17#	L-80	BTC	1.125	1.25	1.60

EOG RESOURCES, INC.
MR. SCOTT FEDERAL COM NO. 1H

Contingency Hole & Casing String:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0'-400'	13.375"	48#	H-40/J-55	STC	1.125	1.25	1.60
12.25"	0' -100'	9.625	40#	J-55	LTC	1.125	1.25	1.60
12.25"	100' - 3,300'	9.625	36#	J-55	LTC	1.125	1.25	1.60
12.25"	3,300' - 3,500'	9.625	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' - 5,058'	7"	29#	L-80	BTC	1.125	1.25	1.60
8.75"	5,058'-10,046'	5 1/2"	17#	L-80	BTC	1.125	1.25	1.60

Cementing Program:

Note: Cement volumes based on bit size plus at least 100% excess on surface, 100% excess in Contingency Intermediate and 35% excess in production string.

Primary Cement Design:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Volume Ft ³	Slurry Description
400'	415	14.8	1.34	95	Tail: Class 'C' + 2%PF1(Calcium Chloride) (100% excess)
10046'	420	11.9	2.47	185	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent(+ 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ Surface) 35% Excess
	1150	13	1.48	303	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess

Contingency Cement Design:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Volume Ft ³	Slurry Description
400'	415	14.8	1.34	95	Tail: Class 'C' + 2%PF1(Calcium Chloride) (100% excess)
3500'*	1075	12.8	1.79	343	Lead: 35:65 Poz C + .02 gal/sk Anti Foam + 1% Extender + .13 lb/sk Lost Circulation (TOC @ Surface)
	200	14.8	1.33	47	Tail: Class C + 0.13% Anti Foam
10046'	170	11.9	2.47	75	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent(+ 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ 500' into previous casing string) 35% Excess
	1150	13	1.48	303	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess
*Cement will be done in 2 stages if water flow is encountered. DV Tool placement will be placed above water flow depth. Cement volumes will be adjusted accordingly.					

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5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

A variance is requested to use a co-flex line between the BOP and choke manifold, dependent on rig selection (instead of using a steel line). Certification and specs are attached.

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double rams with blind rams & pipe rams preventer (3,000 psi WP) and an annular preventer (3,000-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.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 3,000/ 250 psig and the annular preventer to 1,500/ 250 psig. The surface casing will be tested to 1200 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 surface 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 – 400'	Fresh Water	8.6-8.8	28-32	N/c
400' – 3,500'* Vertical	Brine	9.2-10.2	32-34	N/c
3,500' – 10,046' Vertical/Curve/Lateral	Cut Brine	8.8-9.4	30-34	N/c
*Reflects the contingency mud system if contingency plan is followed if not the next line will be utilized out from under surface. Mud properties will be adjusted per hole conditions.				

The highest mud weight needed to balance formation is expected to be 10.2 ppg. In order to maintain hole stability, mud weights up to 10.2 ppg may be utilized.

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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) 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-Directional surveys will be run in open hole during drilling phase of operations.

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

The estimated bottom-hole temperature (BHT) at TD is 110 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2599 psig (based on 10.2 ppg MW). Hydrogen sulfide has been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from spud to surface 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.

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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 3,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3,000 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 3,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo HES 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.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.



EOG Resources - Artesia

Eddy County (NAD83)

Mr. Scott

Mr. Scott Federal Com #1H

Lateral

Plan #1

Anticollision Report

02 January, 2019

Company:	EOG Resources - Artesia	Local Co-ordinate Reference:	Well Mr. Scott Federal Com #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Reference Site:	Mr. Scott	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.980 usft	Error Surface:	Combined Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	1/2/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.000	10,045.535	Plan #1 (Lateral)	MWD	OWSG MWD - Standard	

Summary							
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
Offset Well - Wellbore - Design							
La Forge							
La Forge Federal Com #2H - Lateral - Plan #1	4,006.648	4,006.648	29.206	9.193	1.459	Level 3, CC, ES, SF	

Offset Design	La Forge - La Forge Federal Com #2H - Lateral - Plan #1												Offset Site Error:	0.000 usft
Survey Program:	0-MWD												Offset Well Error:	0.000 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.000	0.000	0.000	0.000	0.000	0.000	-141.95	-23.000	-18.000	29.206					
100.000	100.000	100.000	100.000	0.147	0.147	-141.95	-23.000	-18.000	29.206	28.998	0.21	140.514		
200.000	200.000	200.000	200.000	0.505	0.505	-141.95	-23.000	-18.000	29.206	28.491	0.71	40.859		
300.000	300.000	300.000	300.000	0.864	0.864	-141.95	-23.000	-18.000	29.206	27.984	1.22	23.905		
400.000	400.000	400.000	400.000	1.222	1.222	-141.95	-23.000	-18.000	29.206	27.477	1.73	16.895		
500.000	500.000	500.000	500.000	1.581	1.581	-141.95	-23.000	-18.000	29.206	26.970	2.24	13.064		
600.000	600.000	600.000	600.000	1.939	1.939	-141.95	-23.000	-18.000	29.206	26.464	2.74	10.649		
700.000	700.000	700.000	700.000	2.298	2.298	-141.95	-23.000	-18.000	29.206	25.957	3.25	8.988		
800.000	800.000	800.000	800.000	2.656	2.656	-141.95	-23.000	-18.000	29.206	25.450	3.76	7.775		
900.000	900.000	900.000	900.000	3.015	3.015	-141.95	-23.000	-18.000	29.206	24.943	4.26	6.850		
1,000.000	1,000.000	1,000.000	1,000.000	3.373	3.373	-141.95	-23.000	-18.000	29.206	24.436	4.77	6.122		
1,100.000	1,100.000	1,100.000	1,100.000	3.732	3.732	-141.95	-23.000	-18.000	29.206	23.929	5.28	5.534		
1,200.000	1,200.000	1,200.000	1,200.000	4.090	4.090	-141.95	-23.000	-18.000	29.206	23.422	5.78	5.049		
1,300.000	1,300.000	1,300.000	1,300.000	4.449	4.449	-141.95	-23.000	-18.000	29.206	22.915	6.29	4.642		
1,400.000	1,400.000	1,400.000	1,400.000	4.807	4.807	-141.95	-23.000	-18.000	29.206	22.408	6.80	4.296		
1,500.000	1,500.000	1,500.000	1,500.000	5.166	5.166	-141.95	-23.000	-18.000	29.206	21.901	7.31	3.998		
1,600.000	1,600.000	1,600.000	1,600.000	5.524	5.524	-141.95	-23.000	-18.000	29.206	21.394	7.81	3.739		
1,700.000	1,700.000	1,700.000	1,700.000	5.883	5.883	-141.95	-23.000	-18.000	29.206	20.887	8.32	3.511		
1,800.000	1,800.000	1,800.000	1,800.000	6.241	6.241	-141.95	-23.000	-18.000	29.206	20.380	8.83	3.309		
1,900.000	1,900.000	1,900.000	1,900.000	6.599	6.599	-141.95	-23.000	-18.000	29.206	19.873	9.33	3.129		
2,000.000	2,000.000	2,000.000	2,000.000	6.958	6.958	-141.95	-23.000	-18.000	29.206	19.366	9.84	2.968		
2,100.000	2,100.000	2,100.000	2,100.000	7.316	7.316	-141.95	-23.000	-18.000	29.206	18.859	10.35	2.823		
2,200.000	2,200.000	2,200.000	2,200.000	7.675	7.675	-141.95	-23.000	-18.000	29.206	18.352	10.85	2.691		
2,300.000	2,300.000	2,300.000	2,300.000	8.033	8.033	-141.95	-23.000	-18.000	29.206	17.845	11.36	2.571		
2,400.000	2,400.000	2,400.000	2,400.000	8.392	8.392	-141.95	-23.000	-18.000	29.206	17.338	11.87	2.461		
2,500.000	2,500.000	2,500.000	2,500.000	8.750	8.750	-141.95	-23.000	-18.000	29.206	16.831	12.37	2.360		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Artesia	Local Co-ordinate Reference:	Well Mr. Scott Federal Com #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Reference Site:	Mr. Scott	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.000 usft
Survey Program: 0-MWD													Offset Well Error:	0.000 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,600.000	2,600.000	2,600.000	2,600.000	9.109	9.109	-141.95	-23.000	-18.000	29.206	16.324	12.88	2.267		
2,700.000	2,700.000	2,700.000	2,700.000	9.467	9.467	-141.95	-23.000	-18.000	29.206	15.817	13.39	2.181		
2,800.000	2,800.000	2,800.000	2,800.000	9.826	9.826	-141.95	-23.000	-18.000	29.206	15.311	13.90	2.102		
2,900.000	2,900.000	2,900.000	2,900.000	10.184	10.184	-141.95	-23.000	-18.000	29.206	14.804	14.40	2.028		
3,000.000	3,000.000	3,000.000	3,000.000	10.543	10.543	-141.95	-23.000	-18.000	29.206	14.297	14.91	1.959		
3,100.000	3,100.000	3,100.000	3,100.000	10.901	10.901	-141.95	-23.000	-18.000	29.206	13.790	15.42	1.894		
3,200.000	3,200.000	3,200.000	3,200.000	11.260	11.260	-141.95	-23.000	-18.000	29.206	13.283	15.92	1.834		
3,300.000	3,300.000	3,300.000	3,300.000	11.618	11.618	-141.95	-23.000	-18.000	29.206	12.776	16.43	1.778		
3,400.000	3,400.000	3,400.000	3,400.000	11.977	11.977	-141.95	-23.000	-18.000	29.206	12.269	16.94	1.724		
3,500.000	3,500.000	3,500.000	3,500.000	12.335	12.335	-141.95	-23.000	-18.000	29.206	11.762	17.44	1.674		
3,600.000	3,600.000	3,600.000	3,600.000	12.693	12.693	-141.95	-23.000	-18.000	29.206	11.255	17.95	1.627		
3,700.000	3,700.000	3,700.000	3,700.000	13.052	13.052	-141.95	-23.000	-18.000	29.206	10.748	18.46	1.582		
3,800.000	3,800.000	3,800.000	3,800.000	13.410	13.410	-141.95	-23.000	-18.000	29.206	10.241	18.97	1.540		
3,900.000	3,900.000	3,900.000	3,900.000	13.769	13.769	-141.95	-23.000	-18.000	29.206	9.734	19.47	1.500 Level 3		
4,006.648	4,006.648	4,006.648	4,006.648	14.151	14.151	-141.95	-23.000	-18.000	29.206	9.193	20.01	1.459 Level 3, CC, ES, SF		
4,050.000	4,049.973	4,049.973	4,049.973	14.306	14.307	-115.24	-23.000	-18.000	29.742	9.510	20.23	1.470 Level 3		
4,100.000	4,099.736	4,100.264	4,099.736	14.485	14.487	-122.78	-23.000	-18.000	32.067	11.582	20.49	1.565		
4,150.000	4,149.045	4,149.045	4,149.045	14.663	14.662	-133.11	-23.000	-18.000	37.191	16.456	20.74	1.794		
4,200.000	4,197.660	4,197.660	4,197.660	14.840	14.836	-143.22	-23.000	-18.000	46.010	25.026	20.98	2.193		
4,250.000	4,245.344	4,247.439	4,247.427	15.015	15.014	-151.36	-22.194	-18.407	58.062	36.841	21.22	2.736		
4,300.000	4,291.866	4,297.637	4,297.526	15.194	15.193	-157.13	-19.435	-19.801	72.029	50.604	21.43	3.362		
4,350.000	4,336.998	4,348.142	4,347.745	15.379	15.373	-161.31	-14.686	-22.200	87.630	66.040	21.59	4.059		
4,400.000	4,380.520	4,398.991	4,398.021	15.574	15.554	-164.45	-7.915	-25.620	104.697	82.982	21.72	4.821		
4,431.648	4,407.140	4,431.374	4,429.844	15.704	15.668	-166.04	-2.567	-28.322	116.206	94.432	21.77	5.337		
4,450.000	4,422.340	4,450.312	4,448.372	15.782	15.735	-164.05	0.932	-30.089	122.870	101.070	21.80	5.636		
4,500.000	4,463.521	4,502.919	4,499.471	16.008	15.922	-159.65	12.079	-35.720	139.450	117.612	21.84	6.386		
4,550.000	4,504.165	4,556.630	4,550.993	16.257	16.115	-156.70	25.607	-42.553	153.954	132.122	21.83	7.052		
4,600.000	4,544.022	4,610.917	4,602.290	16.528	16.314	-155.16	41.455	-50.558	166.826	145.034	21.79	7.656		
4,650.000	4,582.845	4,665.210	4,652.693	16.824	16.518	-154.96	59.454	-59.651	178.677	156.949	21.73	8.223		
4,700.000	4,620.396	4,718.911	4,701.552	17.148	16.724	-155.91	79.335	-69.693	190.281	168.610	21.67	8.780		
4,750.000	4,656.443	4,771.422	4,748.268	17.505	16.942	-157.78	100.729	-80.500	202.531	180.868	21.66	9.349		
4,800.000	4,690.763	4,822.187	4,792.412	17.899	17.158	-160.18	122.951	-92.084	216.362	194.622	21.74	9.952		
4,850.000	4,723.146	4,874.302	4,837.205	18.334	17.396	-162.53	144.765	-107.319	232.196	210.423	21.77	10.664		
4,900.000	4,753.390	4,929.534	4,883.961	18.815	17.666	-164.82	165.965	-127.645	249.565	227.872	21.69	11.504		
4,950.000	4,781.311	4,988.395	4,932.589	19.346	17.976	-167.02	186.207	-153.868	267.930	246.448	21.48	12.472		
4,983.319	4,798.541	5,029.917	4,965.927	19.729	18.211	-168.44	198.937	-175.082	280.460	259.204	21.26	13.194		
5,000.000	4,806.882	5,051.625	4,982.983	19.930	18.338	-170.12	205.059	-187.032	286.633	265.521	21.11	13.577		
5,058.319	4,836.041	5,134.058	5,045.012	20.669	18.872	-174.94	224.839	-237.498	305.676	285.289	20.39	14.994		
5,075.000	4,844.127	5,159.280	5,063.017	20.896	19.051	-175.97	229.760	-254.459	310.503	290.385	20.12	15.435		
5,100.000	4,855.281	5,197.985	5,089.652	21.254	19.343	-177.31	236.248	-281.774	317.908	298.246	19.66	16.168		
5,125.000	4,865.247	5,237.755	5,115.673	21.634	19.670	-178.37	241.553	-311.370	325.450	306.303	19.15	16.997		
5,150.000	4,874.001	5,278.556	5,140.844	22.036	20.033	-179.15	245.541	-343.224	333.058	314.484	18.57	17.932		
5,175.000	4,881.517	5,320.335	5,164.913	22.458	20.437	-179.65	248.080	-377.269	340.675	322.725	17.95	18.980		
5,200.000	4,887.775	5,363.023	5,187.615	22.900	20.884	-179.85	249.049	-413.398	348.254	330.969	17.28	20.148		
5,225.000	4,892.758	5,390.210	5,201.242	23.359	21.190	-179.85	248.978	-436.922	356.208	338.951	17.26	20.641		
5,250.000	4,896.452	5,413.467	5,212.871	23.833	21.463	-179.86	248.893	-457.064	365.370	347.997	17.37	21.031		
5,275.000	4,898.847	5,436.214	5,224.244	24.322	21.739	-179.86	248.811	-476.762	375.737	358.250	17.49	21.487		
5,300.000	4,899.937	5,300.000	5,250.108	24.821	19.988	-179.86	248.603	-526.338	386.363	370.445	15.92	24.272		
5,311.345	4,900.000	5,569.616	5,276.430	25.051	23.674	-179.87	248.298	-599.075	389.973	375.791	14.18	27.499		
5,400.000	4,899.438	5,764.112	5,292.584	26.924	27.358	-179.89	247.488	-792.104	393.155	380.642	12.51	31.421		
5,500.000	4,898.804	5,864.112	5,291.947	29.184	29.503	-179.89	247.069	-892.101	393.151	379.944	13.21	29.768		
5,600.000	4,898.170	5,964.112	5,291.310	31.566	31.787	-179.89	246.649	-992.098	393.148	379.192	13.96	28.172		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Artesia	Local Co-ordinate Reference:	Well Mr. Scott Federal Com #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Reference Site:	Mr. Scott	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.000 usft
Survey Program: 0-MWD													Offset Well Error:	0.000 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,700.000	4,897.537	6,064.112	5,290.672	34.046	34.180	-179.89	246.229	-1,092.095	393.144	378.395	14.75	26.655		
5,800.000	4,896.903	6,164.112	5,290.035	36.602	36.663	-179.90	245.809	-1,192.092	393.141	377.559	15.58	25.231		
5,900.000	4,896.269	6,264.112	5,289.398	39.221	39.217	-179.90	245.390	-1,292.089	393.137	376.690	16.45	23.903		
6,000.000	4,895.636	6,364.112	5,288.761	41.890	41.830	-179.90	244.970	-1,392.086	393.134	375.793	17.34	22.671		
6,100.000	4,895.002	6,464.112	5,288.124	44.600	44.491	-179.90	244.550	-1,492.083	393.130	374.873	18.26	21.532		
6,200.000	4,894.368	6,564.112	5,287.486	47.344	47.192	-179.91	244.130	-1,592.080	393.127	373.932	19.19	20.481		
6,300.000	4,893.735	6,664.112	5,286.849	50.117	49.926	-179.91	243.711	-1,692.078	393.123	372.973	20.15	19.510		
6,400.000	4,893.101	6,764.112	5,286.212	52.914	52.689	-179.91	243.291	-1,792.075	393.120	372.000	21.12	18.614		
6,500.000	4,892.467	6,864.112	5,285.575	55.731	55.476	-179.91	242.871	-1,892.072	393.116	371.013	22.10	17.785		
6,600.000	4,891.834	6,964.112	5,284.938	58.566	58.283	-179.91	242.451	-1,992.069	393.113	370.015	23.10	17.019		
6,700.000	4,891.200	7,064.112	5,284.301	61.416	61.108	-179.92	242.032	-2,092.066	393.109	369.006	24.10	16.310		
6,800.000	4,890.566	7,164.112	5,283.663	64.279	63.948	-179.92	241.612	-2,192.063	393.106	367.989	25.12	15.651		
6,900.000	4,889.933	7,264.112	5,283.026	67.153	66.801	-179.92	241.192	-2,292.060	393.102	366.964	26.14	15.040		
7,000.000	4,889.299	7,364.112	5,282.389	70.037	69.666	-179.92	240.773	-2,392.057	393.099	365.932	27.17	14.470		
7,100.000	4,888.665	7,464.112	5,281.752	72.930	72.542	-179.93	240.353	-2,492.054	393.095	364.894	28.20	13.939		
7,200.000	4,888.032	7,564.112	5,281.115	75.831	75.427	-179.93	239.933	-2,592.051	393.092	363.851	29.24	13.443		
7,300.000	4,887.398	7,664.112	5,280.478	78.738	78.320	-179.93	239.513	-2,692.048	393.088	362.802	30.29	12.979		
7,400.000	4,886.764	7,764.112	5,279.840	81.652	81.220	-179.93	239.094	-2,792.045	393.085	361.750	31.34	12.545		
7,500.000	4,886.130	7,864.112	5,279.203	84.571	84.126	-179.94	238.674	-2,892.043	393.081	360.693	32.39	12.136		
7,600.000	4,885.497	7,964.112	5,278.566	87.495	87.039	-179.94	238.254	-2,992.040	393.077	359.632	33.45	11.753		
7,700.000	4,884.863	8,064.112	5,277.929	90.424	89.956	-179.94	237.834	-3,092.037	393.074	358.568	34.51	11.391		
7,800.000	4,884.229	8,164.112	5,277.292	93.356	92.879	-179.94	237.415	-3,192.034	393.070	357.501	35.57	11.051		
7,900.000	4,883.596	8,264.112	5,276.655	96.293	95.806	-179.95	236.995	-3,292.031	393.067	356.432	36.64	10.729		
8,000.000	4,882.962	8,364.112	5,276.017	99.233	98.736	-179.95	236.575	-3,392.028	393.063	355.359	37.70	10.425		
8,100.000	4,882.328	8,464.112	5,275.380	102.175	101.671	-179.95	236.156	-3,492.025	393.060	354.285	38.78	10.137		
8,200.000	4,881.695	8,564.112	5,274.743	105.121	104.608	-179.95	235.736	-3,592.022	393.056	353.208	39.85	9.864		
8,300.000	4,881.061	8,664.112	5,274.106	108.069	107.549	-179.96	235.316	-3,692.019	393.053	352.130	40.92	9.605		
8,400.000	4,880.427	8,764.112	5,273.469	111.020	110.493	-179.96	234.896	-3,792.016	393.049	351.049	42.00	9.358		
8,500.000	4,879.794	8,864.112	5,272.832	113.973	113.439	-179.96	234.477	-3,892.013	393.046	349.967	43.08	9.124		
8,600.000	4,879.160	8,964.112	5,272.194	116.928	116.387	-179.96	234.057	-3,992.010	393.042	348.884	44.16	8.901		
8,700.000	4,878.526	9,064.112	5,271.557	119.884	119.338	-179.97	233.637	-4,092.008	393.039	347.799	45.24	8.688		
8,800.000	4,877.893	9,164.112	5,270.920	122.843	122.291	-179.97	233.217	-4,192.005	393.035	346.713	46.32	8.485		
8,900.000	4,877.259	9,264.112	5,270.283	125.803	125.245	-179.97	232.798	-4,292.002	393.032	345.625	47.41	8.291		
9,000.000	4,876.625	9,364.112	5,269.646	128.764	128.202	-179.97	232.378	-4,391.999	393.029	344.536	48.49	8.105		
9,100.000	4,875.991	9,464.112	5,269.008	131.727	131.160	-179.98	231.958	-4,491.996	393.025	343.447	49.58	7.927		
9,200.000	4,875.358	9,564.112	5,268.371	134.691	134.119	-179.98	231.538	-4,591.993	393.022	342.356	50.67	7.757		
9,300.000	4,874.724	9,664.112	5,267.734	137.657	137.080	-179.98	231.119	-4,691.990	393.018	341.264	51.75	7.594		
9,400.000	4,874.090	9,764.112	5,267.097	140.624	140.042	-179.98	230.699	-4,791.987	393.015	340.171	52.84	7.437		
9,500.000	4,873.457	9,864.112	5,266.460	143.591	143.006	-179.99	230.279	-4,891.984	393.011	339.078	53.93	7.287		
9,600.000	4,872.823	9,964.112	5,265.823	146.560	145.971	-179.99	229.860	-4,991.981	393.008	337.984	55.02	7.142		
9,700.000	4,872.189	10,064.112	5,265.185	149.530	148.937	-179.99	229.440	-5,091.978	393.004	336.889	56.12	7.003		
9,800.000	4,871.556	10,164.112	5,264.548	152.500	151.904	-179.99	229.020	-5,191.975	393.001	335.793	57.21	6.870		
9,900.000	4,870.922	10,264.112	5,263.911	155.472	154.872	-180.00	228.600	-5,291.973	392.997	334.697	58.30	6.741		
10,000.000	4,870.288	10,364.112	5,263.274	158.444	157.840	-180.00	228.181	-5,391.970	392.994	333.600	59.39	6.617		
10,045.535	4,870.000	10,409.647	5,262.984	159.798	159.192	180.00	227.989	-5,437.504	392.992	333.100	59.89	6.562		
10,045.889	4,869.998	10,410.002	5,262.982	159.805	159.203	180.00	227.988	-5,437.858	392.992	333.097	59.89	6.561		

Company:	EOG Resources - Artesia	Local Co-ordinate Reference:	Well Mr. Scott Federal Com #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Reference Site:	Mr. Scott	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3785.000usft (Planning Rig)

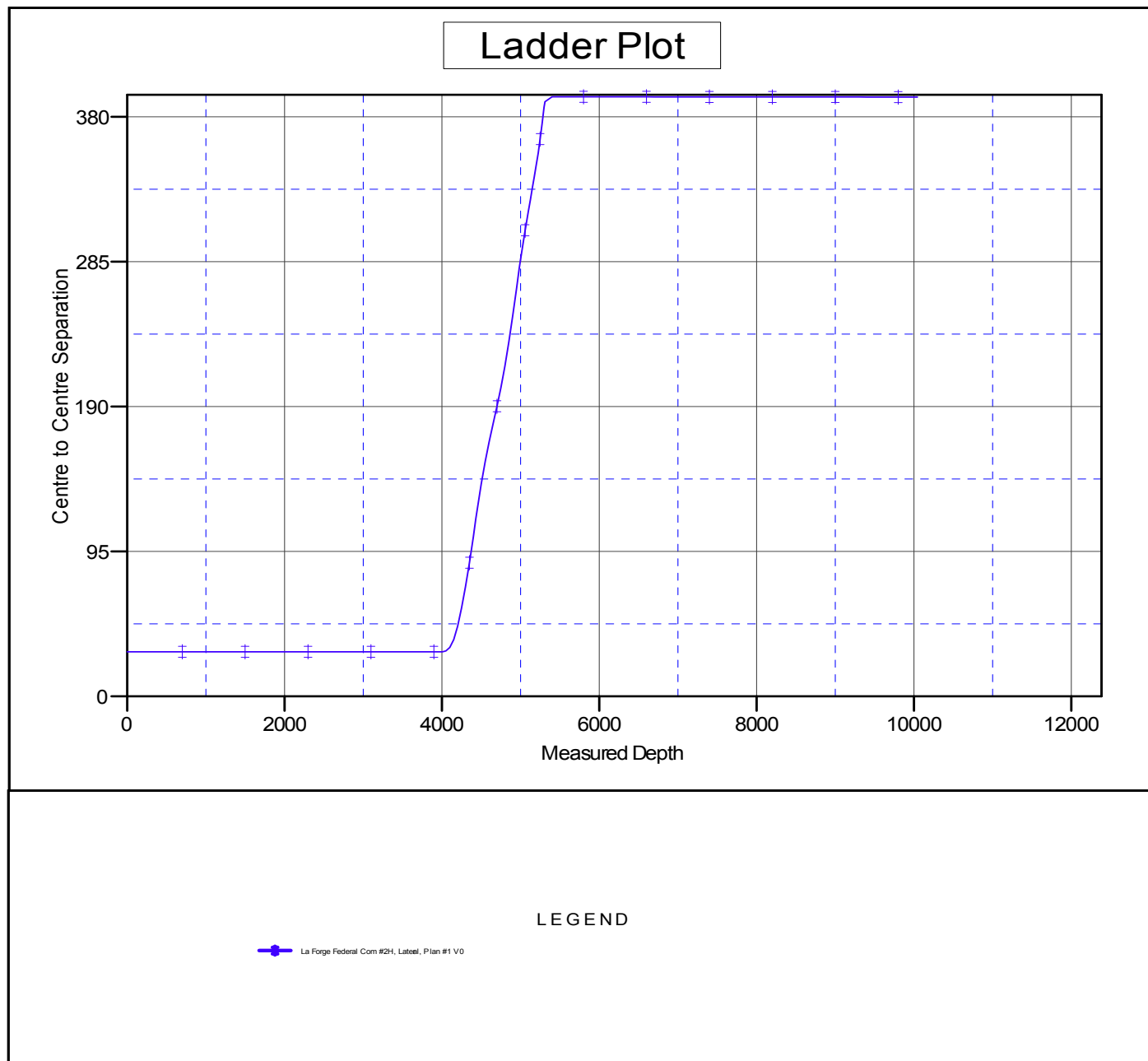
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Mr. Scott Federal Com #1H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.22°

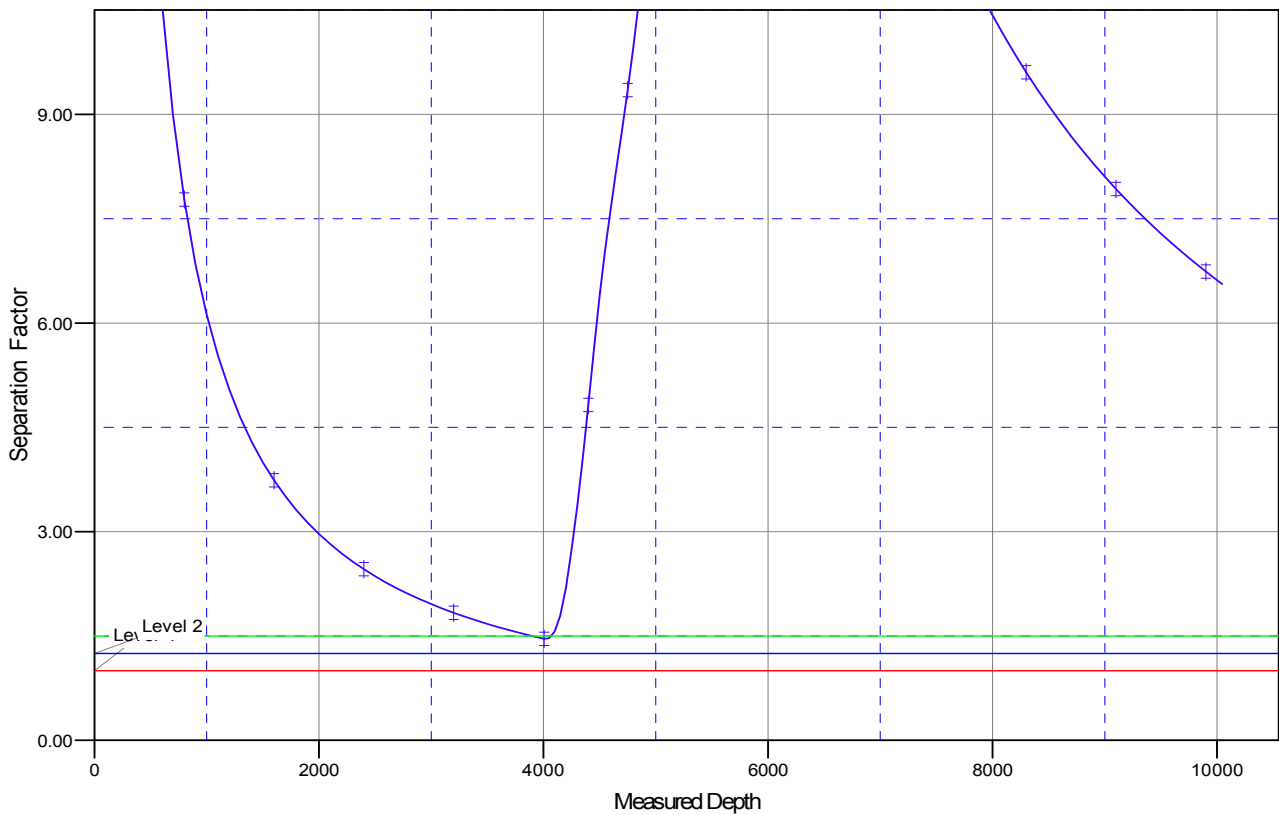


Company:	EOG Resources - Artesia	Local Co-ordinate Reference:	Well Mr. Scott Federal Com #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Reference Site:	Mr. Scott	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	North Reference:	Grid
Reference Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.000 usft	Output errors are at	2.00 sigma
Reference Wellbore	Lateral	Database:	EDM 5000.14
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3785.000usft (Planning Rig)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Mr. Scott Federal Com #1H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.22°

Separation Factor Plot



LEGEND

La Forge Federal Com #2H, Lateral, Plan #1 V0



EOG Resources - Artesia

Eddy County (NAD83)

Mr. Scott

Mr. Scott Federal Com #1H

Lateral

Plan: Plan #1

Standard Planning Report

02 January, 2019

Database:	EDM 5000.14	Local Co-ordinate Reference	Well Mr. Scott Federal Com #1H
Company:	EOG Resources - Artesia	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site:	Mr. Scott	North Reference:	Grid
Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Project	Eddy County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Mr. Scott		
Site Position:		Northing:	671,795.00 usft
From:	Map	Easting:	666,876.00 usft
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 50' 46.037 N
		Longitude:	103° 55' 28.408 W
		Grid Convergence:	0.22 °

Well	Mr. Scott Federal Com #1H					
Well Position	+N/-S	0.000 usft	Northing:	671,795.00 usft	Latitude:	32° 50' 46.037 N
	+E/-W	0.000 usft	Easting:	666,876.00 usft	Longitude:	103° 55' 28.408 W
Position Uncertainty		0.000 usft	Wellhead Elevation:	3,785.000 usft	Ground Level:	3,767.000 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/18/2018	7.02	60.56	48,128.17165396

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.000
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.000	0.000	0.000	272.402

Plan Survey Tool Program	Date	1/2/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.000	10,045.535	Plan #1 (Lateral)	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
0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	
400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.00	0.00	
4,006.648	0.00	0.000	4,006.648	0.000	0.000	0.00	0.00	0.00	0.00	
4,431.648	34.00	331.000	4,407.140	107.091	-59.361	8.00	8.00	0.00	331.00	
4,983.319	60.00	269.750	4,798.541	250.012	-394.242	9.00	4.71	-11.10	-85.05	
5,058.319	60.00	269.750	4,836.041	249.729	-459.194	0.00	0.00	0.00	0.00	
5,311.345	90.36	269.750	4,900.000	248.673	-700.949	12.00	12.00	0.00	0.00	
10,045.535	90.36	269.750	4,870.000	228.000	-5,435.000	0.00	0.00	0.00	0.00	[MSFC#1H]BHL1

Database:	EDM 5000.14	Local Co-ordinate Reference	Well Mr. Scott Federal Com #1H
Company:	EOG Resources - Artesia	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site:	Mr. Scott	North Reference:	Grid
Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #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)
0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00
100.000	0.00	0.000	100.000	0.000	0.000	0.000	0.00	0.00	0.00
200.000	0.00	0.000	200.000	0.000	0.000	0.000	0.00	0.00	0.00
300.000	0.00	0.000	300.000	0.000	0.000	0.000	0.00	0.00	0.00
400.000	0.00	0.000	400.000	0.000	0.000	0.000	0.00	0.00	0.00
500.000	0.00	0.000	500.000	0.000	0.000	0.000	0.00	0.00	0.00
600.000	0.00	0.000	600.000	0.000	0.000	0.000	0.00	0.00	0.00
700.000	0.00	0.000	700.000	0.000	0.000	0.000	0.00	0.00	0.00
800.000	0.00	0.000	800.000	0.000	0.000	0.000	0.00	0.00	0.00
900.000	0.00	0.000	900.000	0.000	0.000	0.000	0.00	0.00	0.00
1,000.000	0.00	0.000	1,000.000	0.000	0.000	0.000	0.00	0.00	0.00
1,100.000	0.00	0.000	1,100.000	0.000	0.000	0.000	0.00	0.00	0.00
1,200.000	0.00	0.000	1,200.000	0.000	0.000	0.000	0.00	0.00	0.00
1,300.000	0.00	0.000	1,300.000	0.000	0.000	0.000	0.00	0.00	0.00
1,400.000	0.00	0.000	1,400.000	0.000	0.000	0.000	0.00	0.00	0.00
1,500.000	0.00	0.000	1,500.000	0.000	0.000	0.000	0.00	0.00	0.00
1,600.000	0.00	0.000	1,600.000	0.000	0.000	0.000	0.00	0.00	0.00
1,700.000	0.00	0.000	1,700.000	0.000	0.000	0.000	0.00	0.00	0.00
1,800.000	0.00	0.000	1,800.000	0.000	0.000	0.000	0.00	0.00	0.00
1,900.000	0.00	0.000	1,900.000	0.000	0.000	0.000	0.00	0.00	0.00
2,000.000	0.00	0.000	2,000.000	0.000	0.000	0.000	0.00	0.00	0.00
2,100.000	0.00	0.000	2,100.000	0.000	0.000	0.000	0.00	0.00	0.00
2,200.000	0.00	0.000	2,200.000	0.000	0.000	0.000	0.00	0.00	0.00
2,300.000	0.00	0.000	2,300.000	0.000	0.000	0.000	0.00	0.00	0.00
2,400.000	0.00	0.000	2,400.000	0.000	0.000	0.000	0.00	0.00	0.00
2,500.000	0.00	0.000	2,500.000	0.000	0.000	0.000	0.00	0.00	0.00
2,600.000	0.00	0.000	2,600.000	0.000	0.000	0.000	0.00	0.00	0.00
2,700.000	0.00	0.000	2,700.000	0.000	0.000	0.000	0.00	0.00	0.00
2,800.000	0.00	0.000	2,800.000	0.000	0.000	0.000	0.00	0.00	0.00
2,900.000	0.00	0.000	2,900.000	0.000	0.000	0.000	0.00	0.00	0.00
3,000.000	0.00	0.000	3,000.000	0.000	0.000	0.000	0.00	0.00	0.00
3,100.000	0.00	0.000	3,100.000	0.000	0.000	0.000	0.00	0.00	0.00
3,200.000	0.00	0.000	3,200.000	0.000	0.000	0.000	0.00	0.00	0.00
3,300.000	0.00	0.000	3,300.000	0.000	0.000	0.000	0.00	0.00	0.00
3,400.000	0.00	0.000	3,400.000	0.000	0.000	0.000	0.00	0.00	0.00
3,500.000	0.00	0.000	3,500.000	0.000	0.000	0.000	0.00	0.00	0.00
3,600.000	0.00	0.000	3,600.000	0.000	0.000	0.000	0.00	0.00	0.00
3,700.000	0.00	0.000	3,700.000	0.000	0.000	0.000	0.00	0.00	0.00
3,800.000	0.00	0.000	3,800.000	0.000	0.000	0.000	0.00	0.00	0.00
3,900.000	0.00	0.000	3,900.000	0.000	0.000	0.000	0.00	0.00	0.00
4,006.648	0.00	0.000	4,006.648	0.000	0.000	0.000	0.00	0.00	0.00
KOP 8°/100' BR									
4,050.000	3.47	331.000	4,049.973	1.147	-0.636	0.683	8.00	8.00	0.00
4,100.000	7.47	331.000	4,099.736	5.314	-2.945	3.165	8.00	8.00	0.00
4,150.000	11.47	331.000	4,149.045	12.506	-6.932	7.450	8.00	8.00	0.00
4,200.000	15.47	331.000	4,197.660	22.689	-12.577	13.517	8.00	8.00	0.00
4,250.000	19.47	331.000	4,245.344	35.813	-19.852	21.335	8.00	8.00	0.00
4,300.000	23.47	331.000	4,291.866	51.815	-28.721	30.868	8.00	8.00	0.00
4,350.000	27.47	331.000	4,336.998	70.616	-39.143	42.068	8.00	8.00	0.00
4,400.000	31.47	331.000	4,380.520	92.124	-51.065	54.882	8.00	8.00	0.00
4,431.648	34.00	331.000	4,407.140	107.091	-59.361	63.798	8.00	8.00	0.00
4,450.000	34.18	328.070	4,422.340	115.954	-64.576	69.379	9.00	0.97	-15.97
4,500.000	35.01	320.274	4,463.521	138.915	-81.178	86.928	9.00	1.66	-15.59

Database:	EDM 5000.14	Local Co-ordinate Reference	Well Mr. Scott Federal Com #1H
Company:	EOG Resources - Artesia	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site:	Mr. Scott	North Reference:	Grid
Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #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)	
4,550.000	36.31	312.881	4,504.165	160.030	-101.201	107.819	9.00	2.61	-14.79	
4,600.000	38.04	306.001	4,544.022	179.167	-124.523	131.923	9.00	3.46	-13.76	
4,650.000	40.13	299.682	4,582.845	196.211	-150.999	159.090	9.00	4.20	-12.64	
4,700.000	42.55	293.927	4,620.396	211.054	-180.466	189.153	9.00	4.82	-11.51	
4,750.000	45.22	288.701	4,656.443	223.606	-212.743	221.928	9.00	5.35	-10.45	
4,800.000	48.11	283.956	4,690.763	233.790	-247.631	257.211	9.00	5.78	-9.49	
4,850.000	51.18	279.634	4,723.146	241.542	-284.913	294.786	9.00	6.14	-8.64	
4,900.000	54.39	275.677	4,753.390	246.815	-324.361	334.421	9.00	6.43	-7.91	
4,950.000	57.72	272.031	4,781.311	249.576	-365.732	375.870	9.00	6.67	-7.29	
4,983.319	60.00	269.750	4,798.541	250.012	-394.242	404.374	9.00	6.83	-6.85	
START 75' TANGENT/9°/100' BR										
5,000.000	60.00	269.750	4,806.882	249.949	-408.688	418.805	0.00	0.00	0.00	
5,058.319	60.00	269.750	4,836.041	249.729	-459.194	469.256	0.00	0.00	0.00	
END 60° TANGENT/BEGIN 12°/100' BR										
5,075.000	62.00	269.750	4,844.127	249.665	-473.782	483.830	12.00	12.00	0.00	
5,100.000	65.00	269.750	4,855.281	249.568	-496.153	506.177	12.00	12.00	0.00	
5,125.000	68.00	269.750	4,865.247	249.467	-519.077	529.077	12.00	12.00	0.00	
5,150.000	71.00	269.750	4,874.001	249.365	-542.491	552.466	12.00	12.00	0.00	
5,175.000	74.00	269.750	4,881.517	249.261	-566.332	576.281	12.00	12.00	0.00	
5,200.000	77.00	269.750	4,887.775	249.156	-590.533	600.456	12.00	12.00	0.00	
5,225.000	80.00	269.750	4,892.758	249.049	-615.028	624.925	12.00	12.00	0.00	
5,250.000	83.00	269.750	4,896.452	248.941	-639.750	649.621	12.00	12.00	0.00	
5,275.000	86.00	269.750	4,898.847	248.832	-664.632	674.477	12.00	12.00	0.00	
5,300.000	89.00	269.750	4,899.937	248.723	-689.605	699.423	12.00	12.00	0.00	
5,311.345	90.36	269.750	4,900.000	248.673	-700.950	710.756	12.00	12.00	0.00	
[MSFC#1H]EOC 5311' MD (4900' TVD)										
5,400.000	90.36	269.750	4,899.438	248.286	-789.602	799.314	0.00	0.00	0.00	
5,500.000	90.36	269.750	4,898.804	247.850	-889.599	899.205	0.00	0.00	0.00	
5,600.000	90.36	269.750	4,898.170	247.413	-989.596	999.096	0.00	0.00	0.00	
5,700.000	90.36	269.750	4,897.537	246.976	-1,089.593	1,098.987	0.00	0.00	0.00	
5,800.000	90.36	269.750	4,896.903	246.540	-1,189.590	1,198.878	0.00	0.00	0.00	
5,900.000	90.36	269.750	4,896.269	246.103	-1,289.587	1,298.768	0.00	0.00	0.00	
6,000.000	90.36	269.750	4,895.636	245.666	-1,389.584	1,398.659	0.00	0.00	0.00	
6,100.000	90.36	269.750	4,895.002	245.230	-1,489.581	1,498.550	0.00	0.00	0.00	
6,200.000	90.36	269.750	4,894.368	244.793	-1,589.578	1,598.441	0.00	0.00	0.00	
6,300.000	90.36	269.750	4,893.735	244.356	-1,689.575	1,698.332	0.00	0.00	0.00	
6,400.000	90.36	269.750	4,893.101	243.919	-1,789.572	1,798.223	0.00	0.00	0.00	
6,500.000	90.36	269.750	4,892.467	243.483	-1,889.569	1,898.114	0.00	0.00	0.00	
6,600.000	90.36	269.750	4,891.834	243.046	-1,989.566	1,998.005	0.00	0.00	0.00	
6,700.000	90.36	269.750	4,891.200	242.609	-2,089.564	2,097.895	0.00	0.00	0.00	
6,800.000	90.36	269.750	4,890.566	242.173	-2,189.561	2,197.786	0.00	0.00	0.00	
6,900.000	90.36	269.750	4,889.933	241.736	-2,289.558	2,297.677	0.00	0.00	0.00	
7,000.000	90.36	269.750	4,889.299	241.299	-2,389.555	2,397.568	0.00	0.00	0.00	
7,100.000	90.36	269.750	4,888.665	240.863	-2,489.552	2,497.459	0.00	0.00	0.00	
7,200.000	90.36	269.750	4,888.032	240.426	-2,589.549	2,597.350	0.00	0.00	0.00	
7,300.000	90.36	269.750	4,887.398	239.989	-2,689.546	2,697.241	0.00	0.00	0.00	
7,400.000	90.36	269.750	4,886.764	239.553	-2,789.543	2,797.132	0.00	0.00	0.00	
7,500.000	90.36	269.750	4,886.130	239.116	-2,889.540	2,897.022	0.00	0.00	0.00	
7,600.000	90.36	269.750	4,885.497	238.679	-2,989.537	2,996.913	0.00	0.00	0.00	
7,700.000	90.36	269.750	4,884.863	238.243	-3,089.534	3,096.804	0.00	0.00	0.00	
7,800.000	90.36	269.750	4,884.229	237.806	-3,189.531	3,196.695	0.00	0.00	0.00	
7,900.000	90.36	269.750	4,883.596	237.369	-3,289.528	3,296.586	0.00	0.00	0.00	
8,000.000	90.36	269.750	4,882.962	236.933	-3,389.525	3,396.477	0.00	0.00	0.00	

Database:	EDM 5000.14	Local Co-ordinate Reference	Well Mr. Scott Federal Com #1H
Company:	EOG Resources - Artesia	TVD Reference:	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3785.000usft (Planning Rig)
Site:	Mr. Scott	North Reference:	Grid
Well:	Mr. Scott Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #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)	
8,100.000	90.36	269.750	4,882.328	236.496	-3,489.522	3,496.368	0.00	0.00	0.00	
8,200.000	90.36	269.750	4,881.695	236.059	-3,589.519	3,596.259	0.00	0.00	0.00	
8,300.000	90.36	269.750	4,881.061	235.622	-3,689.516	3,696.149	0.00	0.00	0.00	
8,400.000	90.36	269.750	4,880.427	235.186	-3,789.513	3,796.040	0.00	0.00	0.00	
8,500.000	90.36	269.750	4,879.794	234.749	-3,889.510	3,895.931	0.00	0.00	0.00	
8,600.000	90.36	269.750	4,879.160	234.312	-3,989.507	3,995.822	0.00	0.00	0.00	
8,700.000	90.36	269.750	4,878.526	233.876	-4,089.504	4,095.713	0.00	0.00	0.00	
8,800.000	90.36	269.750	4,877.893	233.439	-4,189.501	4,195.604	0.00	0.00	0.00	
8,900.000	90.36	269.750	4,877.259	233.002	-4,289.498	4,295.495	0.00	0.00	0.00	
9,000.000	90.36	269.750	4,876.625	232.566	-4,389.495	4,395.386	0.00	0.00	0.00	
9,100.000	90.36	269.750	4,875.991	232.129	-4,489.492	4,495.276	0.00	0.00	0.00	
9,200.000	90.36	269.750	4,875.358	231.692	-4,589.489	4,595.167	0.00	0.00	0.00	
9,300.000	90.36	269.750	4,874.724	231.256	-4,689.486	4,695.058	0.00	0.00	0.00	
9,400.000	90.36	269.750	4,874.090	230.819	-4,789.483	4,794.949	0.00	0.00	0.00	
9,500.000	90.36	269.750	4,873.457	230.382	-4,889.480	4,894.840	0.00	0.00	0.00	
9,600.000	90.36	269.750	4,872.823	229.946	-4,989.478	4,994.731	0.00	0.00	0.00	
9,700.000	90.36	269.750	4,872.189	229.509	-5,089.475	5,094.622	0.00	0.00	0.00	
9,800.000	90.36	269.750	4,871.556	229.072	-5,189.472	5,194.512	0.00	0.00	0.00	
9,900.000	90.36	269.750	4,870.922	228.636	-5,289.469	5,294.403	0.00	0.00	0.00	
10,000.000	90.36	269.750	4,870.288	228.199	-5,389.466	5,394.294	0.00	0.00	0.00	
10,045.535	90.36	269.750	4,870.000	228.000	-5,434.999	5,439.780	0.00	0.00	0.00	
[MSFC#1H]BHL 10046' MD (4870' TVD)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
[MSFC#1H]BHL1 - hit/miss target - Shape - Point	0.00	0.000	4,870.000	228.000	-5,435.000	672,023.00	661,441.00	32° 50' 48.496 N	103° 56' 32.107 W	
[MSFC#1H]UMP1 - plan misses target center by 106.491usft at 5001.800usft MD (4807.782 TVD, 249.942 N, -410.247 E) - Point	0.00	0.000	4,900.000	249.000	-357.000	672,044.00	666,519.00	32° 50' 48.514 N	103° 55' 32.582 W	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
4,006.648	4,006.648	0.000	0.000	KOP 8°/100' BR	
4,983.319	4,798.541	250.012	-394.242	START 75' TANGENT/9°/100' BR	
5,058.319	4,836.041	249.729	-459.194	END 60° TANGENT/BEGIN 12°/100' BR	
5,311.345	4,900.000	248.673	-700.950	[MSFC#1H]EOC 5311' MD (4900' TVD)	
10,045.535	4,870.000	228.000	-5,434.999	[MSFC#1H]BHL 10046' MD (4870' TVD)	

Project: Eddy County (NAD83)
Site: Mr. Scott
Well: Mr. Scott Federal Com #1H
Wellbore: Lateral
Design: Plan #1
Ground Elevation 3767.000
Northing 671795.00
Easting 666876.00
KB @ 3785.000usft (Planning Rig)

PROJECT DETAILS: Eddy County (NAD83)

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

System Datum: Mean Sea Level



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.000
2	400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.000
3	4006.648	0.00	0.000	4006.648	0.000	0.000	0.00	0.00	0.000
4	4431.648	34.00	331.000	4407.140	107.091	-59.361	8.00	331.00	63.798
5	4983.319	60.00	269.750	4798.541	250.012	-394.243	9.00	-85.05	404.374
6	5058.319	60.00	269.750	4836.041	249.729	-459.194	0.00	0.00	469.257
7	5311.345	90.36	269.750	4900.000	248.673	-700.950	12.00	0.00	710.756
8	10045.535	90.36	269.750	4870.000	228.006	-5435.000	0.00	0.00	5439.780

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
[MSFC#1H]BHL1 - plan hits target center	4870.000	228.000	-5435.000	672023.00	661441.00
[MSFC#1H]UMP1 - plan misses target center by 106.491usft at 5001.800usft MD (4807.782 TVD, 249.942 N, -410.247 E)	4900.000	249.000	-357.000	672044.00	666519.00

