

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. NMNM94115	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No. NMNM142951	
8. Well Name and No. LAKEWOOD 28 FED COM/754H	
9. API Well No. 30-025-53608	
10. Field and Pool or Exploratory Area Hardin Tank; Bone Spring	
11. Country or Parish, State LEA/NM	

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	
2. Name of Operator EOG RESOURCES INCORPORATED	
3a. Address 1111 BAGBY SKY LOBBY 2, HOUSTON, TX 770	3b. Phone No. (include area code) (713) 651-7000
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 28/T25S/R34E/NMP	

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:

Lakewood XL 28 Fed Com 525H (FKA Lakewood 28 Fed Com 754H) API #: 30-025-53608

Change name from Lakewood 28 Fed Com 754H to Lakewood XL 28 Fed Com 525H.

Change SHL from T-25-S, R-34-E, Sec 28, 260' FSL, 2010' FEL, LEA Co., NM,  
to T-25-S, R-34-E, Sec 28, 260' FSL, 1215' FEL, LEA Co., N.M.

Change BHL from T-25-S, R-34-E, Sec 21, 100' FNL, 2314' FEL, LEA Co., NM,  
to T-25-S, R-34-E, Sec 16, 100' FNL, 2310' FEL, LEA Co., N.M.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) STAR HARRELL / Ph: (432) 848-9161	Title Regulatory Specialist
Signature (Electronic Submission)	Date 09/30/2024

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 10/22/2024
Conditions of approval, if any, are attached. Approval of this notice 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.	Office CARLSBAD	

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Additional Remarks

Change target formation to Second Bone Spring Sand.

Update casing and cement program to current design.

Update HSU to 1920 acres.

Update the Pool as reflected in the C-102.

### Location of Well

0. SHL: TR O / 260 FSL / 2010 FEL / TWSP: 25S / RANGE: 34E / SECTION: 28 / LAT: 32.0949549 / LONG: -103.4728394 ( TVD: 0 feet, MD: 0 feet )

PPP: TR O / 100 FSL / 2314 FEL / TWSP: 25S / RANGE: 34E / SECTION: 28 / LAT: 32.0945151 / LONG: -103.4738212 ( TVD: 12954 feet, MD: 12972 feet )

BHL: TR B / 100 FNL / 2314 FEL / TWSP: 25S / RANGE: 34E / SECTION: 21 / LAT: 32.1229865 / LONG: -103.4738361 ( TVD: 13219 feet, MD: 23433 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**Pad Name:** Lakewood XL 28 Fed Com SHALLOW

**SHL:** Section 28, Township 25-S, Range 34-E, LEA County, NM

Well Name	API #	Surface		Intermediate		Production	
		MD	TVD	MD	TVD	MD	TVD
Lakewood XL 28 Fed Com #226H (Lakewood 28 Fed Com 102)	30-025-53598	918	918	5,131	5,122	25,848	10,355
Lakewood XL 28 Fed Com #305H (Lakewood 28 Fed Com 743)	30-025-53604	918	918	5,233	5,122	26,031	10,445
Lakewood XL 28 Fed Com #306H (Lakewood 28 Fed Com 502)	30-025-53600	918	918	5,264	5,122	26,060	10,445
Lakewood XL 28 Fed Com #307H (Lakewood 28 Fed Com 101)	30-025-53597	918	918	5,191	5,122	25,994	10,445
Lakewood XL 28 Fed Com #308H (Lakewood 28 Fed Com 751)	30-025-53605	918	918	5,126	5,122	25,932	10,445
Lakewood XL 28 Fed Com #525H (Lakewood 28 Fed Com 754)	30-025-53608	918	918	5,230	5,122	26,808	11,225
Lakewood XL 28 Fed Com #526H (Lakewood 28 Fed Com 503)	30-025-53601	918	918	5,261	5,122	26,838	11,225
Lakewood XL 28 Fed Com #527H (Lakewood 28 Fed Com 501)	30-025-53599	918	918	5,190	5,122	26,774	11,225
Lakewood XL 28 Fed Com #528H (Lakewood 28 Fed Com 741)	30-025-53602	918	918	5,126	5,122	26,712	11,225
Lakewood XL 28 Fed Com #555H (Lakewood 28 Fed Com 753)	30-025-53607	918	918	5,179	5,122	26,761	11,225
Lakewood XL 28 Fed Com #584H (Lakewood 28 Fed Com 752)	30-025-53606	918	918	5,128	5,122	27,153	11,664
Lakewood XL 28 Fed Com #593H (Lakewood 28 Fed Com 742)	30-025-53603	918	918	5,131	5,122	27,154	11,664

### ALL PREVIOUS COAs STILL APPLY

Above listed wells are approved for 4 Designs listed in the “EOG BLM Variance 5a - Alternate Shallow Casing Designs” document. The casing set points and directional plans for the wells in the batch are within the boundary conditions reviewed in the blanket design. The COA is written for the deepest well on the pad. Operator is responsible to review the cement volumes based on the set points, design executed and to achieve the TOC requirements listed in the COA.

### COA

H2S	<input checked="" type="radio"/> Yes	<input 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
Wellhead Variance	<input type="radio"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input type="checkbox"/> Contingency Cement Squeeze	<input type="checkbox"/> EchoMeter	<input checked="" type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry		
Special Requirements Variance	<input checked="" type="checkbox"/> Break Testing	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Casing Clearance

## A. CASING

### Shallow Design A:

1. The **13-3/8** inch surface casing shall be set at approximately **918** feet **TVD** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) 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 **9-5/8** inch intermediate casing shall be set at approximately **5,122** feet **TVD**.
  - **Mud weight could brine up to 10.2ppg. Reviewed and OK**
  - **Keep casing half full during run for collapse SF**

The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The **5-1/2** inch production casing shall be set at approximately **27,154** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:
    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### Shallow Design B:

1. The **10-3/4** inch surface casing shall be set at approximately **918** feet **TVD** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) 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 **8-5/8** inch intermediate casing shall be set at approximately **5,122** feet **TVD**.
    - **Mud weight could brine up to 10.2ppg. Reviewed and OK**
    - **Keep casing half full during run for collapse SF**

The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The **5-1/2** inch production casing shall be set at approximately **27,154** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:
    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### **Shallow Design C:**

1. The **13-3/8** inch surface casing shall be set at approximately **918** feet **TVD** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) 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 **9-5/8** inch intermediate casing shall be set at approximately **5,122** feet **TVD**.
  - **Mud weight could brine up to 10.2ppg. Reviewed and OK**
  - **Keep casing half full during run for collapse SF**

The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The **6** inch production casing shall be set at approximately **27,154** feet. The minimum required fill of cement behind the **6** inch production casing is:
    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

#### **Shallow Design D:**

1. The **13-3/8** inch surface casing shall be set at approximately **918** feet **TVD** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - e. 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.
  - f. 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)
  - g. 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.
  - h. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **9-5/8** inch intermediate casing shall be set at approximately **5,122** feet **TVD**.
  - **Mud weight could brine up to 10.2ppg. Reviewed and OK**
  - **Keep casing half full during run for collapse SF**

The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:



- Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The 6 inch x 5.5 inch tapered production casing shall be set at approximately **27,154** feet. The minimum required fill of cement behind the 6 inch x 5.5 inch tapered production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**Production Bradenhead Plan Reviewed and is OK for all four designs.**

**(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)**

**BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

**Offline Cementing**

Offline cementing OK for surface and intermediate intervals. Notify the BLM prior to the commencement of any offline cementing procedure.

**Casing Clearance:**

- Overlap clearance OK.
- Salt annular variance in place.
- 1" surface clearance not met. Operator aware and will perf and squeeze if necessary

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.



## 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)

**Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; [BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822

**Contact Lea County Petroleum Engineering Inspection Staff:**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

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
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

**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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 **43 CFR 3172**.

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:

- i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
- i. 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 cement), 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).
  - ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. 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.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. 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.
  - vii. 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.
  - viii. 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 **43 CFR 3172**.

**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.

KPI 10/15/2024



## Midland

Lea County, NM (NAD 83 NME)  
Lakewood XL 28 Fed Com  
#525H

OH

Plan: Plan #0.1 RT

## Standard Planning Report

26 September, 2024



## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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

Site	Lakewood XL 28 Fed Com				
Site Position:		Northing:	399,358.00 usft	Latitude:	32° 5' 41.843 N
From:	Map	Easting:	809,420.00 usft	Longitude:	103° 28' 3.500 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#525H					
Well Position	+N/-S	0.0 usft	Northing:	399,351.00 usft	Latitude:	32° 5' 41.838 N
	+E/-W	0.0 usft	Easting:	808,604.00 usft	Longitude:	103° 28' 12.986 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,321.0 usft
Grid Convergence:		0.46 °				

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	9/26/2024	6.10	59.68	47,085.98198811

<b>Design</b>	Plan #0.1 RT				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	355.51	

<b>Plan Survey Tool Program</b>	<b>Date</b>	9/26/2024			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	26,808.4 Plan #0.1 RT (OH)	EOG MWD+IFR1		
			MWD + IFR1		



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #525H
Company:	Midland	TVD Reference:	kb = 26' @ 3347.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3347.0usft
Site:	Lakewood XL 28 Fed Com	North Reference:	Grid
Well:	#525H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,043.9	10.88	258.67	2,040.7	-10.1	-50.5	2.00	2.00	0.00	258.67	
7,404.9	10.88	258.67	7,305.3	-208.9	-1,042.5	0.00	0.00	0.00	0.00	
7,948.9	0.00	0.00	7,846.0	-219.0	-1,093.0	2.00	-2.00	0.00	180.00	
10,850.4	0.00	0.00	10,747.5	-219.0	-1,093.0	0.00	0.00	0.00	0.00	KOP(Lakewood XL 28)
11,070.8	26.46	0.00	10,960.2	-169.0	-1,093.0	12.00	12.00	0.00	0.00	FTP(Lakewood XL 28)
11,600.3	90.00	359.55	11,224.9	258.5	-1,095.3	12.00	12.00	-0.09	-0.51	
16,351.0	90.00	359.55	11,225.0	5,009.0	-1,133.0	0.00	0.00	0.00	0.00	Fed Perf 1(Lakewood XL 28)
26,808.4	90.00	359.56	11,225.0	15,466.0	-1,215.0	0.00	0.00	0.00	82.43	PBHL(Lakewood XL 28)





## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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	2.00	258.67	1,600.0	-0.3	-1.7	-0.2	2.00	2.00	0.00
1,700.0	4.00	258.67	1,699.8	-1.4	-6.8	-0.8	2.00	2.00	0.00
1,800.0	6.00	258.67	1,799.5	-3.1	-15.4	-1.9	2.00	2.00	0.00
1,900.0	8.00	258.67	1,898.7	-5.5	-27.3	-3.3	2.00	2.00	0.00
2,000.0	10.00	258.67	1,997.5	-8.6	-42.7	-5.2	2.00	2.00	0.00
2,043.9	10.88	258.67	2,040.7	-10.1	-50.5	-6.1	2.00	2.00	0.00
2,100.0	10.88	258.67	2,095.7	-12.2	-60.9	-7.4	0.00	0.00	0.00
2,200.0	10.88	258.67	2,193.9	-15.9	-79.4	-9.6	0.00	0.00	0.00
2,300.0	10.88	258.67	2,292.1	-19.6	-97.9	-11.9	0.00	0.00	0.00
2,400.0	10.88	258.67	2,390.3	-23.3	-116.4	-14.1	0.00	0.00	0.00
2,500.0	10.88	258.67	2,488.5	-27.0	-134.9	-16.4	0.00	0.00	0.00
2,600.0	10.88	258.67	2,586.7	-30.7	-153.4	-18.6	0.00	0.00	0.00
2,700.0	10.88	258.67	2,684.9	-34.4	-171.9	-20.9	0.00	0.00	0.00
2,800.0	10.88	258.67	2,783.2	-38.1	-190.4	-23.1	0.00	0.00	0.00
2,900.0	10.88	258.67	2,881.4	-41.9	-208.9	-25.4	0.00	0.00	0.00
3,000.0	10.88	258.67	2,979.6	-45.6	-227.4	-27.6	0.00	0.00	0.00
3,100.0	10.88	258.67	3,077.8	-49.3	-245.9	-29.9	0.00	0.00	0.00
3,200.0	10.88	258.67	3,176.0	-53.0	-264.4	-32.1	0.00	0.00	0.00
3,300.0	10.88	258.67	3,274.2	-56.7	-282.9	-34.4	0.00	0.00	0.00
3,400.0	10.88	258.67	3,372.4	-60.4	-301.4	-36.6	0.00	0.00	0.00
3,500.0	10.88	258.67	3,470.6	-64.1	-319.9	-38.8	0.00	0.00	0.00
3,600.0	10.88	258.67	3,568.8	-67.8	-338.4	-41.1	0.00	0.00	0.00
3,700.0	10.88	258.67	3,667.0	-71.5	-356.9	-43.3	0.00	0.00	0.00
3,800.0	10.88	258.67	3,765.2	-75.2	-375.4	-45.6	0.00	0.00	0.00
3,900.0	10.88	258.67	3,863.4	-78.9	-393.9	-47.8	0.00	0.00	0.00
4,000.0	10.88	258.67	3,961.6	-82.6	-412.4	-50.1	0.00	0.00	0.00
4,100.0	10.88	258.67	4,059.8	-86.3	-431.0	-52.3	0.00	0.00	0.00
4,200.0	10.88	258.67	4,158.0	-90.1	-449.5	-54.6	0.00	0.00	0.00
4,300.0	10.88	258.67	4,256.2	-93.8	-468.0	-56.8	0.00	0.00	0.00
4,400.0	10.88	258.67	4,354.4	-97.5	-486.5	-59.1	0.00	0.00	0.00
4,500.0	10.88	258.67	4,452.6	-101.2	-505.0	-61.3	0.00	0.00	0.00
4,600.0	10.88	258.67	4,550.8	-104.9	-523.5	-63.6	0.00	0.00	0.00
4,700.0	10.88	258.67	4,649.0	-108.6	-542.0	-65.8	0.00	0.00	0.00
4,800.0	10.88	258.67	4,747.2	-112.3	-560.5	-68.1	0.00	0.00	0.00
4,900.0	10.88	258.67	4,845.4	-116.0	-579.0	-70.3	0.00	0.00	0.00
5,000.0	10.88	258.67	4,943.6	-119.7	-597.5	-72.6	0.00	0.00	0.00
5,100.0	10.88	258.67	5,041.8	-123.4	-616.0	-74.8	0.00	0.00	0.00
5,200.0	10.88	258.67	5,140.0	-127.1	-634.5	-77.0	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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	10.88	258.67	5,238.2	-130.8	-653.0	-79.3	0.00	0.00	0.00
5,400.0	10.88	258.67	5,336.4	-134.5	-671.5	-81.5	0.00	0.00	0.00
5,500.0	10.88	258.67	5,434.6	-138.3	-690.0	-83.8	0.00	0.00	0.00
5,600.0	10.88	258.67	5,532.8	-142.0	-708.5	-86.0	0.00	0.00	0.00
5,700.0	10.88	258.67	5,631.0	-145.7	-727.0	-88.3	0.00	0.00	0.00
5,800.0	10.88	258.67	5,729.2	-149.4	-745.5	-90.5	0.00	0.00	0.00
5,900.0	10.88	258.67	5,827.4	-153.1	-764.0	-92.8	0.00	0.00	0.00
6,000.0	10.88	258.67	5,925.6	-156.8	-782.5	-95.0	0.00	0.00	0.00
6,100.0	10.88	258.67	6,023.8	-160.5	-801.0	-97.3	0.00	0.00	0.00
6,200.0	10.88	258.67	6,122.1	-164.2	-819.6	-99.5	0.00	0.00	0.00
6,300.0	10.88	258.67	6,220.3	-167.9	-838.1	-101.8	0.00	0.00	0.00
6,400.0	10.88	258.67	6,318.5	-171.6	-856.6	-104.0	0.00	0.00	0.00
6,500.0	10.88	258.67	6,416.7	-175.3	-875.1	-106.3	0.00	0.00	0.00
6,600.0	10.88	258.67	6,514.9	-179.0	-893.6	-108.5	0.00	0.00	0.00
6,700.0	10.88	258.67	6,613.1	-182.7	-912.1	-110.8	0.00	0.00	0.00
6,800.0	10.88	258.67	6,711.3	-186.5	-930.6	-113.0	0.00	0.00	0.00
6,900.0	10.88	258.67	6,809.5	-190.2	-949.1	-115.2	0.00	0.00	0.00
7,000.0	10.88	258.67	6,907.7	-193.9	-967.6	-117.5	0.00	0.00	0.00
7,100.0	10.88	258.67	7,005.9	-197.6	-986.1	-119.7	0.00	0.00	0.00
7,200.0	10.88	258.67	7,104.1	-201.3	-1,004.6	-122.0	0.00	0.00	0.00
7,300.0	10.88	258.67	7,202.3	-205.0	-1,023.1	-124.2	0.00	0.00	0.00
7,404.9	10.88	258.67	7,305.3	-208.9	-1,042.5	-126.6	0.00	0.00	0.00
7,500.0	8.98	258.67	7,399.0	-212.1	-1,058.6	-128.5	2.00	-2.00	0.00
7,600.0	6.98	258.67	7,498.0	-214.8	-1,072.2	-130.2	2.00	-2.00	0.00
7,700.0	4.98	258.67	7,597.5	-216.9	-1,082.4	-131.4	2.00	-2.00	0.00
7,800.0	2.98	258.67	7,697.2	-218.2	-1,089.2	-132.3	2.00	-2.00	0.00
7,900.0	0.98	258.67	7,797.1	-218.9	-1,092.6	-132.7	2.00	-2.00	0.00
7,948.9	0.00	0.00	7,846.0	-219.0	-1,093.0	-132.7	2.00	-2.00	0.00
8,000.0	0.00	0.00	7,897.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,100.0	0.00	0.00	7,997.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,097.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,197.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,297.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,397.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,497.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,597.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,697.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,797.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,897.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,100.0	0.00	0.00	8,997.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,097.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,197.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,297.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,397.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,497.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,597.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,697.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,797.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,897.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,100.0	0.00	0.00	9,997.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,097.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,300.0	0.00	0.00	10,197.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,297.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,397.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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)	
10,600.0	0.00	0.00	10,497.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,597.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,697.1	-219.0	-1,093.0	-132.7	0.00	0.00	0.00	
10,850.4	0.00	0.00	10,747.5	-219.0	-1,093.0	-132.7	0.00	0.00	0.00	
10,875.0	2.96	0.00	10,772.1	-218.4	-1,093.0	-132.1	12.00	12.00	0.00	
10,900.0	5.96	0.00	10,797.0	-216.4	-1,093.0	-130.2	12.00	12.00	0.00	
10,925.0	8.96	0.00	10,821.8	-213.2	-1,093.0	-126.9	12.00	12.00	0.00	
10,950.0	11.96	0.00	10,846.4	-208.6	-1,093.0	-122.4	12.00	12.00	0.00	
10,975.0	14.96	0.00	10,870.7	-202.8	-1,093.0	-116.6	12.00	12.00	0.00	
11,000.0	17.96	0.00	10,894.7	-195.7	-1,093.0	-109.5	12.00	12.00	0.00	
11,025.0	20.96	0.00	10,918.3	-187.4	-1,093.0	-101.2	12.00	12.00	0.00	
11,050.0	23.96	0.00	10,941.4	-177.9	-1,093.0	-91.7	12.00	12.00	0.00	
11,070.8	26.46	0.00	10,960.2	-169.0	-1,093.0	-82.9	12.00	12.00	0.00	
11,075.0	26.96	359.99	10,963.9	-167.1	-1,093.0	-81.0	12.00	12.00	-0.23	
11,100.0	29.96	359.94	10,985.9	-155.2	-1,093.0	-69.1	12.00	12.00	-0.21	
11,125.0	32.96	359.89	11,007.2	-142.2	-1,093.0	-56.1	12.00	12.00	-0.17	
11,150.0	35.96	359.86	11,027.8	-128.0	-1,093.1	-42.0	12.00	12.00	-0.15	
11,175.0	38.96	359.83	11,047.7	-112.8	-1,093.1	-26.9	12.00	12.00	-0.13	
11,200.0	41.96	359.80	11,066.7	-96.6	-1,093.2	-10.7	12.00	12.00	-0.11	
11,225.0	44.96	359.77	11,084.9	-79.4	-1,093.2	6.5	12.00	12.00	-0.10	
11,250.0	47.96	359.75	11,102.1	-61.3	-1,093.3	24.5	12.00	12.00	-0.09	
11,275.0	50.96	359.73	11,118.3	-42.3	-1,093.4	43.5	12.00	12.00	-0.08	
11,300.0	53.96	359.71	11,133.6	-22.5	-1,093.5	63.2	12.00	12.00	-0.08	
11,325.0	56.96	359.69	11,147.7	-1.9	-1,093.6	83.8	12.00	12.00	-0.07	
11,350.0	59.96	359.68	11,160.8	19.4	-1,093.7	105.0	12.00	12.00	-0.07	
11,375.0	62.96	359.66	11,172.7	41.4	-1,093.8	126.9	12.00	12.00	-0.06	
11,400.0	65.96	359.65	11,183.5	63.9	-1,094.0	149.4	12.00	12.00	-0.06	
11,425.0	68.96	359.63	11,193.1	87.0	-1,094.1	172.5	12.00	12.00	-0.06	
11,450.0	71.96	359.62	11,201.5	110.6	-1,094.3	195.9	12.00	12.00	-0.05	
11,475.0	74.96	359.61	11,208.6	134.5	-1,094.4	219.8	12.00	12.00	-0.05	
11,500.0	77.96	359.59	11,214.4	158.9	-1,094.6	244.1	12.00	12.00	-0.05	
11,525.0	80.96	359.58	11,219.0	183.4	-1,094.8	268.6	12.00	12.00	-0.05	
11,550.0	83.96	359.57	11,222.3	208.2	-1,095.0	293.3	12.00	12.00	-0.05	
11,575.0	86.96	359.56	11,224.3	233.1	-1,095.1	318.2	12.00	12.00	-0.05	
11,600.3	90.00	359.55	11,224.9	258.5	-1,095.3	343.4	12.00	12.00	-0.05	
11,700.0	90.00	359.55	11,224.9	358.1	-1,096.1	442.9	0.00	0.00	0.00	
11,800.0	90.00	359.55	11,224.9	458.1	-1,096.9	542.6	0.00	0.00	0.00	
11,900.0	90.00	359.55	11,224.9	558.1	-1,097.7	642.4	0.00	0.00	0.00	
12,000.0	90.00	359.55	11,225.0	658.1	-1,098.5	742.1	0.00	0.00	0.00	
12,100.0	90.00	359.55	11,225.0	758.1	-1,099.3	841.9	0.00	0.00	0.00	
12,200.0	90.00	359.55	11,225.0	858.1	-1,100.1	941.6	0.00	0.00	0.00	
12,300.0	90.00	359.55	11,225.0	958.1	-1,100.9	1,041.4	0.00	0.00	0.00	
12,400.0	90.00	359.55	11,225.0	1,058.1	-1,101.7	1,141.1	0.00	0.00	0.00	
12,500.0	90.00	359.55	11,225.0	1,158.1	-1,102.5	1,240.9	0.00	0.00	0.00	
12,600.0	90.00	359.55	11,225.0	1,258.1	-1,103.3	1,340.6	0.00	0.00	0.00	
12,700.0	90.00	359.55	11,225.0	1,358.1	-1,104.1	1,440.4	0.00	0.00	0.00	
12,800.0	90.00	359.55	11,225.0	1,458.1	-1,104.9	1,540.1	0.00	0.00	0.00	
12,900.0	90.00	359.55	11,225.0	1,558.1	-1,105.6	1,639.9	0.00	0.00	0.00	
13,000.0	90.00	359.55	11,225.0	1,658.1	-1,106.4	1,739.6	0.00	0.00	0.00	
13,100.0	90.00	359.55	11,225.0	1,758.1	-1,107.2	1,839.4	0.00	0.00	0.00	
13,200.0	90.00	359.55	11,225.0	1,858.1	-1,108.0	1,939.1	0.00	0.00	0.00	
13,300.0	90.00	359.55	11,225.0	1,958.1	-1,108.8	2,038.9	0.00	0.00	0.00	
13,400.0	90.00	359.55	11,225.0	2,058.1	-1,109.6	2,138.6	0.00	0.00	0.00	
13,500.0	90.00	359.55	11,225.0	2,158.1	-1,110.4	2,238.4	0.00	0.00	0.00	



## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

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	359.55	11,225.0	2,258.0	-1,111.2	2,338.1	0.00	0.00	0.00	
13,700.0	90.00	359.55	11,225.0	2,358.0	-1,112.0	2,437.9	0.00	0.00	0.00	
13,800.0	90.00	359.55	11,225.0	2,458.0	-1,112.8	2,537.6	0.00	0.00	0.00	
13,900.0	90.00	359.55	11,225.0	2,558.0	-1,113.6	2,637.4	0.00	0.00	0.00	
14,000.0	90.00	359.55	11,225.0	2,658.0	-1,114.4	2,737.1	0.00	0.00	0.00	
14,100.0	90.00	359.55	11,225.0	2,758.0	-1,115.2	2,836.9	0.00	0.00	0.00	
14,200.0	90.00	359.55	11,225.0	2,858.0	-1,115.9	2,936.7	0.00	0.00	0.00	
14,300.0	90.00	359.55	11,225.0	2,958.0	-1,116.7	3,036.4	0.00	0.00	0.00	
14,400.0	90.00	359.55	11,225.0	3,058.0	-1,117.5	3,136.2	0.00	0.00	0.00	
14,500.0	90.00	359.55	11,225.0	3,158.0	-1,118.3	3,235.9	0.00	0.00	0.00	
14,600.0	90.00	359.55	11,225.0	3,258.0	-1,119.1	3,335.7	0.00	0.00	0.00	
14,700.0	90.00	359.55	11,225.0	3,358.0	-1,119.9	3,435.4	0.00	0.00	0.00	
14,800.0	90.00	359.55	11,225.0	3,458.0	-1,120.7	3,535.2	0.00	0.00	0.00	
14,900.0	90.00	359.55	11,225.0	3,558.0	-1,121.5	3,634.9	0.00	0.00	0.00	
15,000.0	90.00	359.55	11,225.0	3,658.0	-1,122.3	3,734.7	0.00	0.00	0.00	
15,100.0	90.00	359.55	11,225.0	3,758.0	-1,123.1	3,834.4	0.00	0.00	0.00	
15,200.0	90.00	359.55	11,225.0	3,858.0	-1,123.9	3,934.2	0.00	0.00	0.00	
15,300.0	90.00	359.55	11,225.0	3,958.0	-1,124.7	4,033.9	0.00	0.00	0.00	
15,400.0	90.00	359.55	11,225.0	4,058.0	-1,125.5	4,133.7	0.00	0.00	0.00	
15,500.0	90.00	359.55	11,225.0	4,158.0	-1,126.3	4,233.4	0.00	0.00	0.00	
15,600.0	90.00	359.55	11,225.0	4,258.0	-1,127.0	4,333.2	0.00	0.00	0.00	
15,700.0	90.00	359.55	11,225.0	4,358.0	-1,127.8	4,432.9	0.00	0.00	0.00	
15,800.0	90.00	359.55	11,225.0	4,458.0	-1,128.6	4,532.7	0.00	0.00	0.00	
15,900.0	90.00	359.55	11,225.0	4,558.0	-1,129.4	4,632.4	0.00	0.00	0.00	
16,000.0	90.00	359.55	11,225.0	4,658.0	-1,130.2	4,732.2	0.00	0.00	0.00	
16,100.0	90.00	359.55	11,225.0	4,758.0	-1,131.0	4,831.9	0.00	0.00	0.00	
16,200.0	90.00	359.55	11,225.0	4,858.0	-1,131.8	4,931.7	0.00	0.00	0.00	
16,300.0	90.00	359.55	11,225.0	4,958.0	-1,132.6	5,031.4	0.00	0.00	0.00	
16,351.0	90.00	359.55	11,225.0	5,009.0	-1,133.0	5,082.3	0.00	0.00	0.00	
16,400.0	90.00	359.55	11,225.0	5,058.0	-1,133.4	5,131.2	0.00	0.00	0.00	
16,500.0	90.00	359.55	11,225.0	5,158.0	-1,134.2	5,230.9	0.00	0.00	0.00	
16,600.0	90.00	359.55	11,225.0	5,258.0	-1,135.0	5,330.7	0.00	0.00	0.00	
16,700.0	90.00	359.55	11,225.0	5,358.0	-1,135.8	5,430.4	0.00	0.00	0.00	
16,800.0	90.00	359.55	11,225.0	5,457.9	-1,136.6	5,530.2	0.00	0.00	0.00	
16,900.0	90.00	359.55	11,225.0	5,557.9	-1,137.3	5,629.9	0.00	0.00	0.00	
17,000.0	90.00	359.55	11,225.0	5,657.9	-1,138.1	5,729.7	0.00	0.00	0.00	
17,100.0	90.00	359.55	11,225.0	5,757.9	-1,138.9	5,829.5	0.00	0.00	0.00	
17,200.0	90.00	359.55	11,225.0	5,857.9	-1,139.7	5,929.2	0.00	0.00	0.00	
17,300.0	90.00	359.55	11,225.0	5,957.9	-1,140.5	6,029.0	0.00	0.00	0.00	
17,400.0	90.00	359.55	11,225.0	6,057.9	-1,141.3	6,128.7	0.00	0.00	0.00	
17,500.0	90.00	359.55	11,225.0	6,157.9	-1,142.1	6,228.5	0.00	0.00	0.00	
17,600.0	90.00	359.55	11,225.0	6,257.9	-1,142.9	6,328.2	0.00	0.00	0.00	
17,700.0	90.00	359.55	11,225.0	6,357.9	-1,143.7	6,428.0	0.00	0.00	0.00	
17,800.0	90.00	359.55	11,225.0	6,457.9	-1,144.5	6,527.7	0.00	0.00	0.00	
17,900.0	90.00	359.55	11,225.0	6,557.9	-1,145.3	6,627.5	0.00	0.00	0.00	
18,000.0	90.00	359.55	11,225.0	6,657.9	-1,146.0	6,727.2	0.00	0.00	0.00	
18,100.0	90.00	359.55	11,225.0	6,757.9	-1,146.8	6,827.0	0.00	0.00	0.00	
18,200.0	90.00	359.55	11,225.0	6,857.9	-1,147.6	6,926.7	0.00	0.00	0.00	
18,300.0	90.00	359.55	11,225.0	6,957.9	-1,148.4	7,026.5	0.00	0.00	0.00	
18,400.0	90.00	359.55	11,225.0	7,057.9	-1,149.2	7,126.2	0.00	0.00	0.00	
18,500.0	90.00	359.55	11,225.0	7,157.9	-1,150.0	7,226.0	0.00	0.00	0.00	
18,600.0	90.00	359.55	11,225.0	7,257.9	-1,150.8	7,325.7	0.00	0.00	0.00	
18,700.0	90.00	359.55	11,225.0	7,357.9	-1,151.6	7,425.5	0.00	0.00	0.00	
18,800.0	90.00	359.55	11,225.0	7,457.9	-1,152.4	7,525.2	0.00	0.00	0.00	



## Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #525H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3347.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3347.0usft
<b>Site:</b>	Lakewood XL 28 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#525H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1 RT		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,900.0	90.00	359.55	11,225.0	7,557.9	-1,153.2	7,625.0	0.00	0.00	0.00	
19,000.0	90.00	359.55	11,225.0	7,657.9	-1,153.9	7,724.7	0.00	0.00	0.00	
19,100.0	90.00	359.55	11,225.0	7,757.9	-1,154.7	7,824.5	0.00	0.00	0.00	
19,200.0	90.00	359.55	11,225.0	7,857.9	-1,155.5	7,924.2	0.00	0.00	0.00	
19,300.0	90.00	359.55	11,225.0	7,957.9	-1,156.3	8,024.0	0.00	0.00	0.00	
19,400.0	90.00	359.55	11,225.0	8,057.9	-1,157.1	8,123.7	0.00	0.00	0.00	
19,500.0	90.00	359.55	11,225.0	8,157.9	-1,157.9	8,223.5	0.00	0.00	0.00	
19,600.0	90.00	359.55	11,225.0	8,257.9	-1,158.7	8,323.2	0.00	0.00	0.00	
19,700.0	90.00	359.55	11,225.0	8,357.9	-1,159.5	8,423.0	0.00	0.00	0.00	
19,800.0	90.00	359.55	11,225.0	8,457.9	-1,160.2	8,522.7	0.00	0.00	0.00	
19,900.0	90.00	359.55	11,225.0	8,557.9	-1,161.0	8,622.5	0.00	0.00	0.00	
20,000.0	90.00	359.55	11,225.0	8,657.8	-1,161.8	8,722.2	0.00	0.00	0.00	
20,100.0	90.00	359.55	11,225.0	8,757.8	-1,162.6	8,822.0	0.00	0.00	0.00	
20,200.0	90.00	359.55	11,225.0	8,857.8	-1,163.4	8,921.7	0.00	0.00	0.00	
20,300.0	90.00	359.55	11,225.0	8,957.8	-1,164.2	9,021.5	0.00	0.00	0.00	
20,400.0	90.00	359.55	11,225.0	9,057.8	-1,165.0	9,121.3	0.00	0.00	0.00	
20,500.0	90.00	359.55	11,225.0	9,157.8	-1,165.7	9,221.0	0.00	0.00	0.00	
20,600.0	90.00	359.55	11,225.0	9,257.8	-1,166.5	9,320.8	0.00	0.00	0.00	
20,700.0	90.00	359.55	11,225.0	9,357.8	-1,167.3	9,420.5	0.00	0.00	0.00	
20,800.0	90.00	359.55	11,225.0	9,457.8	-1,168.1	9,520.3	0.00	0.00	0.00	
20,900.0	90.00	359.55	11,225.0	9,557.8	-1,168.9	9,620.0	0.00	0.00	0.00	
21,000.0	90.00	359.55	11,225.0	9,657.8	-1,169.7	9,719.8	0.00	0.00	0.00	
21,100.0	90.00	359.55	11,225.0	9,757.8	-1,170.5	9,819.5	0.00	0.00	0.00	
21,200.0	90.00	359.55	11,225.0	9,857.8	-1,171.2	9,919.3	0.00	0.00	0.00	
21,300.0	90.00	359.55	11,225.0	9,957.8	-1,172.0	10,019.0	0.00	0.00	0.00	
21,400.0	90.00	359.55	11,225.0	10,057.8	-1,172.8	10,118.8	0.00	0.00	0.00	
21,500.0	90.00	359.55	11,225.0	10,157.8	-1,173.6	10,218.5	0.00	0.00	0.00	
21,600.0	90.00	359.55	11,225.0	10,257.8	-1,174.4	10,318.3	0.00	0.00	0.00	
21,700.0	90.00	359.55	11,225.0	10,357.8	-1,175.2	10,418.0	0.00	0.00	0.00	
21,800.0	90.00	359.55	11,225.0	10,457.8	-1,175.9	10,517.8	0.00	0.00	0.00	
21,900.0	90.00	359.55	11,225.0	10,557.8	-1,176.7	10,617.5	0.00	0.00	0.00	
22,000.0	90.00	359.55	11,225.0	10,657.8	-1,177.5	10,717.3	0.00	0.00	0.00	
22,100.0	90.00	359.55	11,225.0	10,757.8	-1,178.3	10,817.0	0.00	0.00	0.00	
22,200.0	90.00	359.55	11,225.0	10,857.8	-1,179.1	10,916.8	0.00	0.00	0.00	
22,300.0	90.00	359.55	11,225.0	10,957.8	-1,179.9	11,016.5	0.00	0.00	0.00	
22,400.0	90.00	359.55	11,225.0	11,057.8	-1,180.6	11,116.3	0.00	0.00	0.00	
22,500.0	90.00	359.55	11,225.0	11,157.8	-1,181.4	11,216.0	0.00	0.00	0.00	
22,600.0	90.00	359.55	11,225.0	11,257.8	-1,182.2	11,315.8	0.00	0.00	0.00	
22,700.0	90.00	359.55	11,225.0	11,357.8	-1,183.0	11,415.5	0.00	0.00	0.00	
22,800.0	90.00	359.55	11,225.0	11,457.8	-1,183.8	11,515.3	0.00	0.00	0.00	
22,900.0	90.00	359.55	11,225.0	11,557.8	-1,184.6	11,615.0	0.00	0.00	0.00	
23,000.0	90.00	359.55	11,225.0	11,657.8	-1,185.3	11,714.8	0.00	0.00	0.00	
23,100.0	90.00	359.55	11,225.0	11,757.8	-1,186.1	11,814.5	0.00	0.00	0.00	
23,200.0	90.00	359.55	11,225.0	11,857.7	-1,186.9	11,914.3	0.00	0.00	0.00	
23,300.0	90.00	359.55	11,225.0	11,957.7	-1,187.7	12,014.0	0.00	0.00	0.00	
23,400.0	90.00	359.55	11,225.0	12,057.7	-1,188.5	12,113.8	0.00	0.00	0.00	
23,500.0	90.00	359.55	11,225.0	12,157.7	-1,189.3	12,213.5	0.00	0.00	0.00	
23,600.0	90.00	359.55	11,225.0	12,257.7	-1,190.0	12,313.3	0.00	0.00	0.00	
23,700.0	90.00	359.55	11,225.0	12,357.7	-1,190.8	12,413.0	0.00	0.00	0.00	
23,800.0	90.00	359.55	11,225.0	12,457.7	-1,191.6	12,512.8	0.00	0.00	0.00	
23,900.0	90.00	359.55	11,225.0	12,557.7	-1,192.4	12,612.5	0.00	0.00	0.00	
24,000.0	90.00	359.55	11,225.0	12,657.7	-1,193.2	12,712.3	0.00	0.00	0.00	
24,100.0	90.00	359.55	11,225.0	12,757.7	-1,193.9	12,812.0	0.00	0.00	0.00	
24,200.0	90.00	359.55	11,225.0	12,857.7	-1,194.7	12,911.8	0.00	0.00	0.00	



Planning Report

Database:	PEDMB	Local Co-ordinate Reference:	Well #525H
Company:	Midland	TVD Reference:	kb = 26' @ 3347.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3347.0usft
Site:	Lakewood XL 28 Fed Com	North Reference:	Grid
Well:	#525H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

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)	
24,300.0	90.00	359.55	11,225.0	12,957.7	-1,195.5	13,011.5	0.00	0.00	0.00	
24,400.0	90.00	359.55	11,225.0	13,057.7	-1,196.3	13,111.3	0.00	0.00	0.00	
24,500.0	90.00	359.55	11,225.0	13,157.7	-1,197.1	13,211.0	0.00	0.00	0.00	
24,600.0	90.00	359.55	11,225.0	13,257.7	-1,197.8	13,310.8	0.00	0.00	0.00	
24,700.0	90.00	359.55	11,225.0	13,357.7	-1,198.6	13,410.5	0.00	0.00	0.00	
24,800.0	90.00	359.55	11,225.0	13,457.7	-1,199.4	13,510.3	0.00	0.00	0.00	
24,900.0	90.00	359.55	11,225.0	13,557.7	-1,200.2	13,610.0	0.00	0.00	0.00	
25,000.0	90.00	359.55	11,225.0	13,657.7	-1,200.9	13,709.8	0.00	0.00	0.00	
25,100.0	90.00	359.55	11,225.0	13,757.7	-1,201.7	13,809.6	0.00	0.00	0.00	
25,200.0	90.00	359.55	11,225.0	13,857.7	-1,202.5	13,909.3	0.00	0.00	0.00	
25,300.0	90.00	359.55	11,225.0	13,957.7	-1,203.3	14,009.1	0.00	0.00	0.00	
25,400.0	90.00	359.55	11,225.0	14,057.7	-1,204.1	14,108.8	0.00	0.00	0.00	
25,500.0	90.00	359.55	11,225.0	14,157.7	-1,204.8	14,208.6	0.00	0.00	0.00	
25,600.0	90.00	359.55	11,225.0	14,257.7	-1,205.6	14,308.3	0.00	0.00	0.00	
25,700.0	90.00	359.55	11,225.0	14,357.7	-1,206.4	14,408.1	0.00	0.00	0.00	
25,800.0	90.00	359.55	11,225.0	14,457.7	-1,207.2	14,507.8	0.00	0.00	0.00	
25,900.0	90.00	359.55	11,225.0	14,557.7	-1,207.9	14,607.6	0.00	0.00	0.00	
26,000.0	90.00	359.55	11,225.0	14,657.7	-1,208.7	14,707.3	0.00	0.00	0.00	
26,100.0	90.00	359.55	11,225.0	14,757.7	-1,209.5	14,807.1	0.00	0.00	0.00	
26,200.0	90.00	359.56	11,225.0	14,857.7	-1,210.3	14,906.8	0.00	0.00	0.00	
26,300.0	90.00	359.56	11,225.0	14,957.7	-1,211.1	15,006.6	0.00	0.00	0.00	
26,400.0	90.00	359.56	11,225.0	15,057.7	-1,211.8	15,106.3	0.00	0.00	0.00	
26,500.0	90.00	359.56	11,225.0	15,157.6	-1,212.6	15,206.1	0.00	0.00	0.00	
26,600.0	90.00	359.56	11,225.0	15,257.6	-1,213.4	15,305.8	0.00	0.00	0.00	
26,700.0	90.00	359.56	11,225.0	15,357.6	-1,214.2	15,405.6	0.00	0.00	0.00	
26,808.4	90.00	359.56	11,225.0	15,466.0	-1,215.0	15,513.7	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
KOP(Lakewood XL 28 F - plan hits target center - Point	0.00	0.00	10,747.5	-219.0	-1,093.0	399,132.00	807,511.00	32° 5' 39.758 N 103° 28' 25.711 W		
FTP(Lakewood XL 28 Fε - plan hits target center - Point	0.00	0.00	10,960.2	-169.0	-1,093.0	399,182.00	807,511.00	32° 5' 40.252 N 103° 28' 25.706 W		
Fed Perf 1(Lakewood XL - plan hits target center - Point	0.00	0.00	11,225.0	5,009.0	-1,133.0	404,360.00	807,471.00	32° 6' 31.493 N 103° 28' 25.692 W		
PBHL(Lakewood XL 28 I - plan hits target center - Point	0.00	0.00	11,225.0	15,466.0	-1,215.0	414,817.00	807,389.00	32° 8' 14.972 N 103° 28' 25.675 W		



Lea County, NM (NAD 83 NME)

Lakewood XL 28 Fed Com #525H

Plan #0.1 RT



To convert a Magnetic Direction to a Grid Direction, Add 5.64°  
To convert a Magnetic Direction to a True Direction, Add 6.10° East  
To convert a True Direction to a Grid Direction, Subtract 0.46°

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

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

WELL DETAILS: #525H

3321.0  
kb = 26' @ 3347.0usft  
Northing 399351.00 Easting 808604.00 Latitude 32° 5' 41.838 N Longitude 103° 28' 12.986 W

SECTION DETAILS

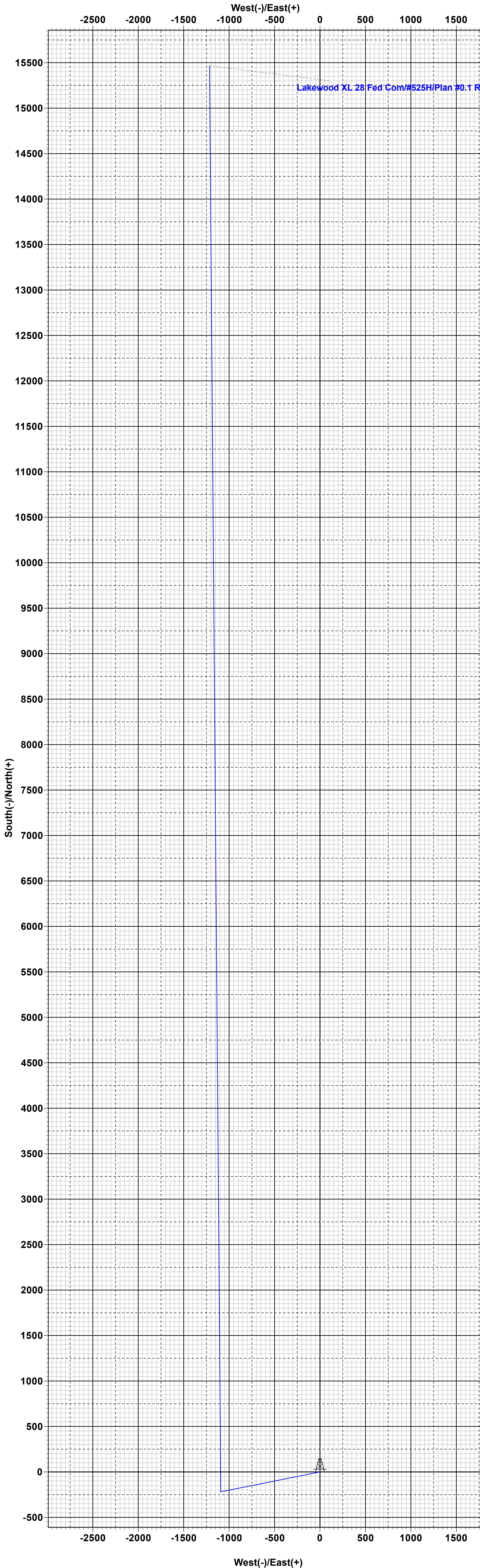
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2043.9	10.88	258.67	2040.7	-10.1	-50.5	2.00	258.67	-6.1	
4	7404.9	10.88	258.67	7305.3	-208.9	-1042.5	0.00	0.00	-126.6	
5	7948.9	0.00	0.00	7846.0	-219.0	-1093.0	2.00	180.00	-132.7	
6	10850.4	0.00	0.00	10747.5	-219.0	-1093.0	0.00	0.00	-132.7	KOP(Lakewood XL 28 Fed Com #525H)
7	11070.8	26.46	0.00	10960.2	-169.0	-1093.0	12.00	0.00	-843.4	FTP(Lakewood XL 28 Fed Com #525H)
8	11600.3	90.00	359.55	11224.9	258.5	-1095.3	12.00	-0.51	343.4	
9	16351.0	90.00	359.55	11225.0	5009.0	-1133.0	0.00	0.00	5082.3	Fed Perf 1(Lakewood XL 28 Fed Com #525H)
10	26808.4	90.00	359.56	11225.0	15466.0	-1215.0	0.00	82.43	15513.7	PBHL(Lakewood XL 28 Fed Com #525H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Lakewood XL 28 Fed Com #525H)	10747.5	-219.0	-1093.0	399132.00	807511.00
FTP(Lakewood XL 28 Fed Com #525H)	10960.2	-169.0	-1093.0	399182.00	807511.00
Fed Perf 1(Lakewood XL 28 Fed Com #525H)	11225.0	5009.0	-1133.0	404360.00	807471.00
PBHL(Lakewood XL 28 Fed Com #525H)	11225.0	15466.0	-1215.0	414817.00	807389.00



Vertical Section at 355.1°





## Lakewood XL 28 Fed Com 525H

### Revised Permit Information 09/04/2024:

Well Name: Lakewood XL 28 Fed Com 525H; FKA Lakewood 28 Fed Com 754H

Location: SHL: 260' FSL & 1215' FEL, Section 28, T-25-S, R-34-E, LEA Co., N.M.

BHL: 100' FNL & 2310' FEL, Section 16, T-25-S, R-34-E, LEA Co., N.M.

### 1. CASING PROGRAM

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13"	0	918	0	918	10-3/4"	40.5#	J-55	STC
9-7/8"	0	5,230	0	5,122	8-5/8"	32#	J-55	BTC-SC
7-7/8"	0	10,750	0	10,648	6"	24.5#	P110-EC	VAM Sprint-TC
6-3/4"	10,750	26,808	10,648	11,225	5-1/2"	20#	P110-EC	VAM Sprint SF

\*\*For highlighted rows above, variance is requested to run entire string of either 6" or 5-1/2" casing string above due to availability.

Variance is requested to waive the centralizer requirements for the 8-5/8" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" and 5-1/2" casings in the 7-7/8" and 6-3/4" hole sizes. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" and 6-3/4" hole intervals to maximize cement bond and zonal isolation.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

### 2. CEMENTING PROGRAM:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
920' 10-3/4"	220	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	120	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 720')
5,120' 8-5/8"	320	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	140	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 4184')
26,808' 6"	1000	14.8	1.32	Bradenhead squeeze: Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
	2230	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 7,846')



### Lakewood XL 28 Fed Com 525H

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Cement integrity tests will be performed immediately following plug bump.

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

EOG requests variance from minimum standards to pump a two stage cement job on the 6" and 5-1/2" production casing strings with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,846') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 400 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (1.32 yld, 14.8 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

Bradenhead will be the primary option for production cementing. EOG also requests to have the conventional option in place to accommodate for logistical or wellbore conditions. The tie back requirements will be met if the cement is pumped conventionally, and cement volumes will be adjusted accordingly. TOC will be verified by CBL.

### 3. MUD PROGRAM:

Depth (TVD)	Type	Weight (ppg)	Viscosity	Water Loss
0 – 920'	Fresh - Gel	8.6-8.8	28-34	N/c
920' – 5,120'	Brine	9.0-10.5	28-34	N/c
5,120' – 26,808'	Oil Base	8.8-9.5	58-68	N/c - 6



**Lakewood XL 28 Fed Com 525H**

**4. VARIANCE REQUESTS:**

EOG requests the additional variance(s) in the attached document(s):

Variances requested include (supporting documents attached):

- BOP Break Testing for 5M Intermediate Intervals (EOG BLM Variance 3a\_b)
- Offline Cementing for Surface and Intermediate Intervals (EOG BLM Variance 3a\_b)
- Shallow Target Offline Bradenhead Production Cement (EOG BLM Variance 3c)
- Salt Interval Washout Annular Clearance (EOG BLM Variance 4a)
- Alternate Shallow Casing Designs (EOG BLM Variance 5a)



**Lakewood XL 28 Fed Com 525H**

**8. TUBING REQUIREMENTS:**

EOG respectfully requests an exception to the following NMOCD rule:

- 19.15.16.10 Casing AND TUBING REQUIREMENTS:  
J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



Lakewood XL 28 Fed Com 525H

260' FSL  
1215' FEL  
Section 28  
T-25-S, R-34-E

Proposed Wellbore  
  
API: 30-025-\*\*\*\*\*

KB: 3346'  
GL: 3321'

Bit Size: 13"  
10-3/4", 40.5#, J-55, STC  
@ 0' - 920'

Bit Size: 9-7/8"  
8-5/8", 32.#, J-55, BTC-SC  
@ 0' - 5,130'

Bit Size: 7-7/8"|Bit Size: 6-3/4"  
6", 24.5#, P110-EC, VAM Sprint-TC  
@ 0' - 10,648'

5-1/2", 20.#, P110-EC, VAM Sprint SF  
@ 10,648' - 26,808'

KOP: 10,850' MD, 10,748' TVD  
EOC: 11,600' MD, 11,225' TVD

If production Bradenhead is performed,  
TOC will be at surface  
  
TOC @ 4,730', if performed  
conventionally.

Lateral: 26,808' MD, 11,225' TVD  
Upper Most Perf:  
100' FSL & 2310' FEL Sec. 28  
Lower Most Perf:  
100' FNL & 2310' FEL Sec. 16  
BH Location: 100' FNL & 2310' FEL  
Sec. 16, T-25-S, R-34-E



## Lakewood XL 28 Fed Com 525H

**1. GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	813'
Tamarisk Anhydrite	893'
Top of Salt	1,607'
Base of Salt	5,022'
Lamar	5,271'
Bell Canyon	5,302'
Cherry Canyon	6,311'
Brushy Canyon	7,846'
Bone Spring Lime	9,417'
Leonard (Avalon) Shale	9,448'
1st Bone Spring Sand	10,408'
2nd Bone Spring Shale	10,624'
2nd Bone Spring Sand	11,023'
3rd Bone Spring Carb	11,444'
3rd Bone Spring Sand	12,018'
Wolfcamp	12,484'
TD	11,225'

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

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,302'	Oil
Cherry Canyon	6,311'	Oil
Brushy Canyon	7,846'	Oil
Leonard (Avalon) Shale	9,448'	Oil
1st Bone Spring Sand	10,408'	Oil
2nd Bone Spring Shale	10,624'	Oil
2nd Bone Spring Sand	11,023'	Oil



### EOG Batch Casing

**Pad Name:** Lakewood XL 28 Fed Com SHALLOW

SHL: Section 28, Township 25-S, Range 34-E, LEA County, NM

EOG requests for the below wells to be approved for all designs listed in the Blanket Casing Design ('EOG BLM Variance 5a - Alternate Shallow Casing Designs.pdf' OR 'EOG BLM Variance 5b - Alternate Deep Casing Designs.pdf') document. The MDs and TVDs for all intervals are within the boundary conditions. The max inclination and DLS are also within the boundary conditions. The directional plans for the wells are attached separately.

Well Name	API #	Surface		Intermediate		Production	
		MD	TVD	MD	TVD	MD	TVD
Lakewood XL 28 Fed Com #226H (Lakewood 28 Fed Com 102)	30-025-53598	918	918	5,131	5,122	25,848	10,355
Lakewood XL 28 Fed Com #305H (Lakewood 28 Fed Com 743)	30-025-53604	918	918	5,233	5,122	26,031	10,445
Lakewood XL 28 Fed Com #306H (Lakewood 28 Fed Com 502)	30-025-53600	918	918	5,264	5,122	26,060	10,445
Lakewood XL 28 Fed Com #307H (Lakewood 28 Fed Com 101)	30-025-53597	918	918	5,191	5,122	25,994	10,445
Lakewood XL 28 Fed Com #308H (Lakewood 28 Fed Com 751)	30-025-53605	918	918	5,126	5,122	25,932	10,445
Lakewood XL 28 Fed Com #525H (Lakewood 28 Fed Com 754)	30-025-53608	918	918	5,230	5,122	26,808	11,225
Lakewood XL 28 Fed Com #526H (Lakewood 28 Fed Com 503)	30-025-53601	918	918	5,261	5,122	26,838	11,225
Lakewood XL 28 Fed Com #527H (Lakewood 28 Fed Com 501)	30-025-53599	918	918	5,190	5,122	26,774	11,225
Lakewood XL 28 Fed Com #528H (Lakewood 28 Fed Com 741)	30-025-53602	918	918	5,126	5,122	26,712	11,225
Lakewood XL 28 Fed Com #555H (Lakewood 28 Fed Com 753)	30-025-53607	918	918	5,179	5,122	26,761	11,225
Lakewood XL 28 Fed Com #584H (Lakewood 28 Fed Com 752)	30-025-53606	918	918	5,128	5,122	27,153	11,664
Lakewood XL 28 Fed Com #593H (Lakewood 28 Fed Com 742)	30-025-53603	918	918	5,131	5,122	27,154	11,664





## EOG Batch Casing

### Variances

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 2a - Intermediate Bradenhead Cement
- EOG BLM Variance 3a\_b - BOP Break-test and Offline Intermediate Cement
- EOG BLM Variance 4a - Salt Section Annular Clearance
- EOG BLM Variance 5a - Alternate Shallow Casing Designs



## EOG Batch Casing

**GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	813'
Tamarisk Anhydrite	893'
Top of Salt	1,607'
Base of Salt	5,022'
Lamar	5,271'
Bell Canyon	5,302'
Cherry Canyon	6,311'
Brushy Canyon	7,846'
Bone Spring Lime	9,417'
Leonard (Avalon) Shale	9,448'
1st Bone Spring Sand	10,408'
2nd Bone Spring Shale	10,624'
2nd Bone Spring Sand	11,023'
3rd Bone Spring Carb	11,444'
3rd Bone Spring Sand	12,018'
Wolfcamp	12,484'

**ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,302'	Oil
Cherry Canyon	6,311'	Oil
Brushy Canyon	7,846'	Oil
Leonard (Avalon) Shale	9,448'	Oil
1st Bone Spring Sand	10,408'	Oil
2nd Bone Spring Shale	10,624'	Oil
2nd Bone Spring Sand	11,023'	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 surface casing at 920' and circulating cement back to surface.

C-102  Submit Electronically Via OCD Permitting	State of New Mexico  Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>	Revised July 9, 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-53608</b>	Pool Code <b>96661</b>	Pool Name <b>Hardin Tank; Bone Spring</b>
Property Code <b>326767</b>	Property Name <b>LAKEWOOD XL 28 FED COM</b>	Well Number <b>525H</b>
OGRID No. <b>7377</b>	Operator Name <b>EOG RESOURCES, INC.</b>	Ground Level Elevation <b>3321'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL or lot no. <b>P</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>260' S</b>	Feet from the E/W <b>1215' E</b>	Latitude <b>N 32.0949559</b>	Longitude <b>W 103.4702729</b>	County <b>LEA</b>
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Bottom Hole Location

UL or lot no. <b>B</b>	Section <b>16</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' N</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.1374923</b>	Longitude <b>W 103.4737978</b>	County <b>LEA</b>
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Dedicated Acres <b>1920</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API <b>PENDING: LAKEWOOD XL 28 FED COM #305H</b>	Overlapping Spacing Unit (Y/N) <b>N</b>	Consolidated Code <b>C</b>
Order Numbers <b>NSP and COM PENDING</b>			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no. <b>O</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>50' S</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.0943777</b>	Longitude <b>W 103.4738081</b>	County <b>LEA</b>
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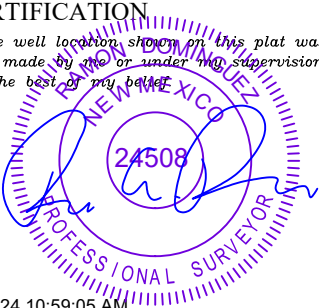
First Take Point (FTP)

UL or lot no. <b>O</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' S</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.0945151</b>	Longitude <b>W 103.4738081</b>	County <b>LEA</b>
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Last Take Point (LTP)

UL or lot no. <b>B</b>	Section <b>16</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' N</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.1374923</b>	Longitude <b>W 103.4737978</b>	County <b>LEA</b>
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Unitized Area or Area of Uniform Intrest <b>COM AGREEMENT</b>	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation <b>3346'</b>
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<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  <b>Star L Harrell</b> <b>9/26/24</b> Signature                                      Date <b>Star L Harrell</b> Print Name <b>star_harrell@eogresources.com</b> E-mail Address		<b>SURVEYORS CERTIFICATION</b>  <i>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 and correct to the best of my belief.</i>   <b>9/19/2024 10:59:05 AM</b> Signature and Seal of Professional Surveyor                      Date  Certificate Number                      Date of Survey  <b>09/10/2024</b>	
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C-102  Submit Electronically Via OCD Permitting	State of New Mexico  Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>	Revised July 9, 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-53608</b>	Pool Code <b>51020</b>	Pool Name <b>RED HILLS; LOWER BONE SPRING</b>
Property Code <b>326767</b>	Property Name <b>LAKEWOOD XL 28 FED COM</b>	Well Number <b>525H</b>
OGRID No. <b>7377</b>	Operator Name <b>EOG RESOURCES, INC.</b>	Ground Level Elevation <b>3321'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL or lot no. <b>P</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>260' S</b>	Feet from the E/W <b>1215' E</b>	Latitude <b>N 32.0949559</b>	Longitude <b>W 103.4702729</b>	County <b>LEA</b>
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Bottom Hole Location

UL or lot no. <b>B</b>	Section <b>16</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' N</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.1374923</b>	Longitude <b>W 103.4737978</b>	County <b>LEA</b>
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Dedicated Acres <b>1920</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API <b>PENDING: LAKEWOOD XL 28 FED COM #305H</b>	Overlapping Spacing Unit (Y/N) <b>N</b>	Consolidated Code <b>C</b>
Order Numbers <b>NSP and COM PENDING</b>			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no. <b>O</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>50' S</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.0943777</b>	Longitude <b>W 103.4738081</b>	County <b>LEA</b>
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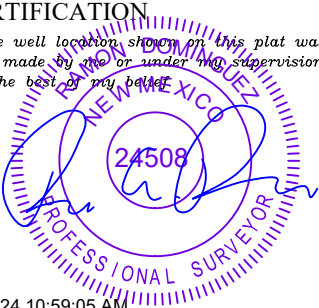
First Take Point (FTP)

UL or lot no. <b>O</b>	Section <b>28</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' S</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.0945151</b>	Longitude <b>W 103.4738081</b>	County <b>LEA</b>
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Last Take Point (LTP)

UL or lot no. <b>B</b>	Section <b>16</b>	Township <b>25-S</b>	Range <b>34-E</b>	Lot Idn <b>-</b>	Feet from the N/S <b>100' N</b>	Feet from the E/W <b>2310' E</b>	Latitude <b>N 32.1374923</b>	Longitude <b>W 103.4737978</b>	County <b>LEA</b>
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Unitized Area or Area of Uniform Intrest <b>COM AGREEMENT</b>	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation <b>3346'</b>
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<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  <b>Star L Harrell</b> <b>9/26/24</b> Signature                                      Date <b>Star L Harrell</b> Print Name <b>star_harrell@eogresources.com</b> E-mail Address		<b>SURVEYORS CERTIFICATION</b>  <i>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 and correct to the best of my belief.</i>   <b>9/19/2024 10:59:05 AM</b> Signature and Seal of Professional Surveyor                      Date  Certificate Number                      Date of Survey  <b>09/10/2024</b>	
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<b>C-102</b> Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>		Revised July 9, 2024	
			Submittal Type:	<input type="checkbox"/> Initial Submittal
				<input checked="" type="checkbox"/> Amended Report
Property Name and Well Number <b>LAKEWOOD XL 28 FED COM 525H</b>				

**SURFACE LOCATION (SHL)**

NEW MEXICO EAST  
 NAD 1983  
 X=808604 Y=399351  
 LAT.: N 32.0949559  
 LONG.: W 103.4702729  
 NAD 1927  
 X=767417 Y=399294  
 LAT.: N 32.0948306  
 LONG.: W 103.4698061  
 260' FSL 1215' FEL

**KICK OFF POINT (KOP)**

NEW MEXICO EAST  
 NAD 1983  
 X=807511 Y=399132  
 LAT.: N 32.0943777  
 LONG.: W 103.4738081  
 NAD 1927  
 X=766324 Y=399075  
 LAT.: N 32.0942525  
 LONG.: W 103.4733412  
 50' FSL 2310' FEL

**UPPER MOST PERF. (UMP)**

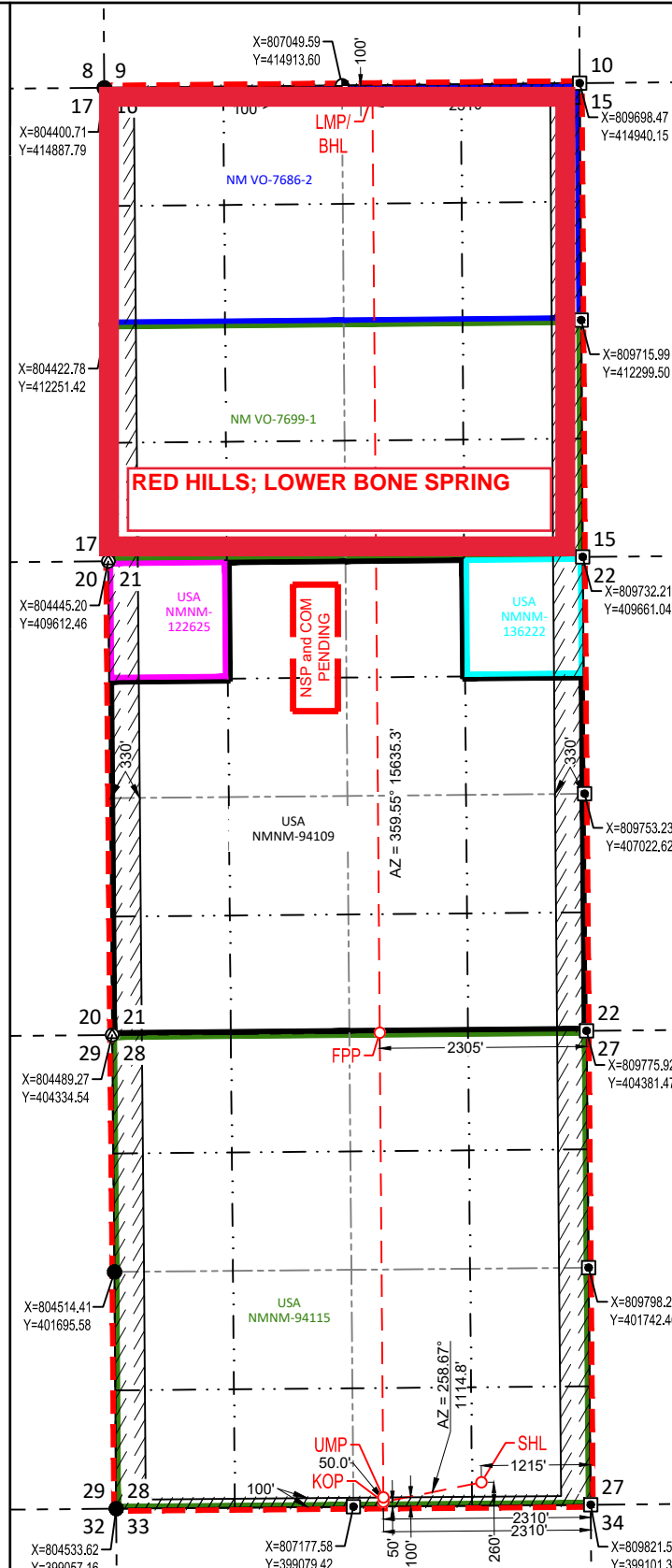
NEW MEXICO EAST  
 NAD 1983  
 X=807511 Y=399182  
 LAT.: N 32.0945151  
 LONG.: W 103.4738081  
 NAD 1927  
 X=766324 Y=399125  
 LAT.: N 32.0943899  
 LONG.: W 103.4733411  
 100' FSL 2310' FEL

**FED PERF. POINT (FPP)**

NEW MEXICO EAST  
 NAD 1983  
 X=807471 Y=404360  
 LAT.: N 32.1087493  
 LONG.: W 103.4738047  
 NAD 1927  
 X=766284 Y=404303  
 LAT.: N 32.1086242  
 LONG.: W 103.4733369  
 0' FNL 2305' FEL

**LOWER MOST PERF. (LMP)  
BOTTOM HOLE LOCATION (BHL)**

NEW MEXICO EAST  
 NAD 1983  
 X=807389 Y=414817  
 LAT.: N 32.1374923  
 LONG.: W 103.4737978  
 NAD 1927  
 X=766203 Y=414759  
 LAT.: N 32.1373674  
 LONG.: W 103.4733281  
 100' FNL 2310' FEL

**SURVEYORS 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 and correct to the best of my belief.  
 09/10/2024

Date of Survey  
 Signature and Seal of Professional Surveyor:



**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 400667

CONDITIONS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 400667
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	11/8/2024
pkautz	Administrative order required for non-standard spacing unit prior to production.	11/8/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/8/2024