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

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

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

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-025-54671

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 04/18/2025

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

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Additional Operator Remarks

Location of Well

0. SHL: NWNW / 503 FNL / 1329 FWL / TWSP: 19S / RANGE: 33E / SECTION: 15 / LAT: 32.666118 / LONG: -103.655148 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 100 FNL / 330 FWL / TWSP: 19S / RANGE: 33E / SECTION: 15 / LAT: 32.667231 / LONG: -103.658392 (TVD: 10596 feet, MD: 10750 feet)

PPP: NWNW / 0 FNL / 330 FWL / TWSP: 19S / RANGE: 33E / SECTION: 27 / LAT: 32.6384853 / LONG: -103.6584835 (TVD: 10760 feet, MD: 21087 feet)

PPP: NWNW / 0 FNL / 330 FWL / TWSP: 19S / RANGE: 33E / SECTION: 22 / LAT: 32.6529975 / LONG: -103.6584361 (TVD: 10760 feet, MD: 15807 feet)

BHL: SWSW / 10 FSL / 330 FWL / TWSP: 19S / RANGE: 33E / SECTION: 27 / LAT: 32.6239993 / LONG: -103.6585307 (TVD: 10760 feet, MD: 26357 feet)

BLM Point of Contact

Name: JORDAN NAVARRETTE
Title: LIE
Phone: (575) 234-5972
Email: JNAVARRETTE@BLM.GOV

Review and Appeal Rights

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**PBEX Operations LLC**
LOCATION:	Section 15, T.19 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 301H**
ATS/API ID:	**ATS-25-806**
APD ID:	**10400102883**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 302H**
ATS/API ID:	**ATS-25-805**
APD ID:	**10400102900**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 303H**
ATS/API ID:	**ATS-25-804**
APD ID:	**10400102902**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 601H**
ATS/API ID:	**ATS-25-803**
APD ID:	**10400102904**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 602H**
ATS/API ID:	**ATS-25-802**
APD ID:	**10400102905**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 603H**
ATS/API ID:	**ATS-25-801**
APD ID:	**10400102906**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Moonraker 15-27 Fed Com 801H**
ATS/API ID:	**ATS-25-800**
APD ID:	**10400102907**
Sundry ID:	**N/a**

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WELL NAME & NO.:	**Moonraker 15-27 Fed Com 802H**
ATS/API ID:	**ATS-25-799**
APD ID:	**10400102908**
Sundry ID:	**N/a**

COA

H2S	Yes		
Potash	None	None	
Cave/Karst Potential	Low		
Cave/Karst Potential	☐ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String ☐ 5 String	Capitan Reef None	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☐ Offline Cementing	☐ Casing Clearance

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A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Bone Springs** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** 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

1. The **13-3/8** inch surface casing shall be set at approximately **1500 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

    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.

    Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. 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 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.

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C. PRESSURE CONTROL

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

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) 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 43 CFR 3172.6(b)(9) 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

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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.

- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- 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)

☑ Lea County
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
      - 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 **43 CFR part 3170 Subpart 3172** 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.

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-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 **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

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 43 CFR 3172.6(b)(9) 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 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).

    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 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.)

c. 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 part 3170 Subpart 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).

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 **43 CFR part 3170 Subpart 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.

Long Vo (LVO) 4/8/2025

Approval Date: 04/18/2025

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☑ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-025-54671	59475	TONTO; BONE SPRING	
Property Code	Property Name		Well Number
337283	MOONRAKER 15-27 FED COM		301H
OGRID No.	Operator Name		Ground Level Elevation
332544	PBEX OPERATIONS, LLC		3,669.85'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	15	19S	33E		503' FNL	1,329' FWL	32.666118°	-103.655148°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	27	19S	33E		10' FSL	330' FWL	32.624001°	-103.658531°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
960				
Order Numbers.			Well setbacks are under Common Ownership: ☐Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	15	19S	33E		503' FNL	1,329' FWL	32.666118°	-103.655148°	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	15	19S	33E		100' FNL	330' FWL	32.667231°	-103.658392°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	27	19S	33E		100' FSL	330' FWL	32.624248°	-103.658530°	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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.

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.

Signature 12/12/2024 Date

Mikah Thomas

Printed Name

mikah@pbex.com

Email Address

SURVEYOR CERTIFICATIONS

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.

MARK MORRAY NEW MEXICO 12177 REGISTERED PROFESSIONAL SURVEYOR

Date: 12/11/2024

Signature and Seal of Professional Surveyor

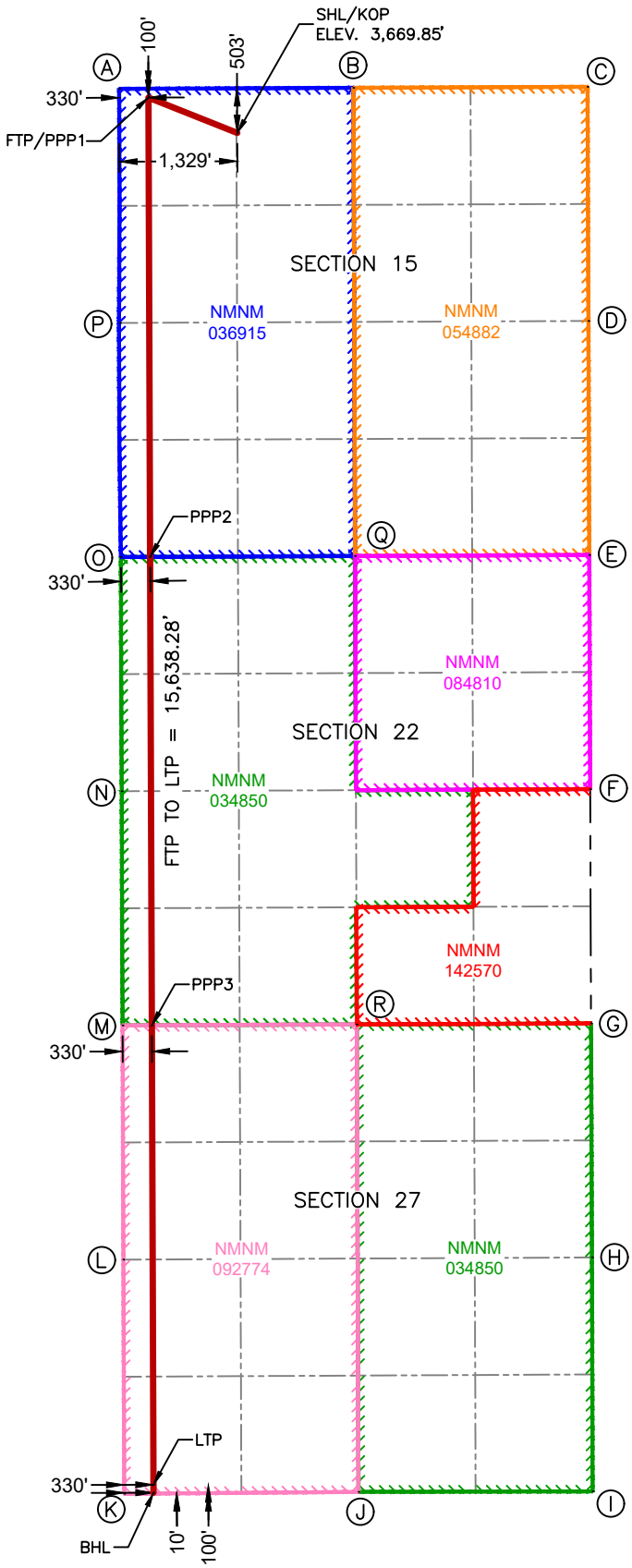
Certificate Number	Date of Survey
12177	12/11/2024

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



SURFACE HOLE LOCATION
& KICK-OFF POINT
503' FNL & 1,329' FWL
ELEV. = 3,669.85'

NAD 83 X = 750,034.95'
NAD 83 Y = 606,731.28'
NAD 83 LAT = 32.666118°
NAD 83 LONG = -103.655148°

FIRST TAKE POINT &
PENETRATION POINT 1
100' FNL & 330' FWL

NAD 83 X = 749,034.09'
NAD 83 Y = 607,130.03'
NAD 83 LAT = 32.667231°
NAD 83 LONG = -103.658392°

PENETRATION POINT 2
0' FNL & 330' FWL

NAD 83 X = 749,053.08'
NAD 83 Y = 601,951.57'
NAD 83 LAT = 32.652998°
NAD 83 LONG = -103.658437°

PENETRATION POINT 3
0' FNL & 330' FWL

NAD 83 X = 749,072.31'
NAD 83 Y = 596,671.69'
NAD 83 LAT = 32.638485°
NAD 83 LONG = -103.658483°

LAST TAKE POINT
100' FSL & 330' FWL

NAD 83 X = 749,090.87'
NAD 83 Y = 591,491.86'
NAD 83 LAT = 32.624248°
NAD 83 LONG = -103.658530°

BOTTOM HOLE LOCATION
10' FSL & 330' FWL

NAD 83 X = 749,091.19'
NAD 83 Y = 591,401.86'
NAD 83 LAT = 32.624001°
NAD 83 LONG = -103.658531°

CORNER COORDINATES NEW MEXICO EAST - NAD 83	
A	IRON ROD W/BRASS CAP N:607,228.59' E:748,703.71'
B	IRON PIPE W/BRASS CAP N:607,240.12' E:751,344.25'
C	IRON PIPE W/BRASS CAP N:607,251.24' E:753,983.32'
D	IRON PIPE W/BRASS CAP N:604,611.58' E:753,993.30'
E	IRON PIPE W/BRASS CAP N:601,973.38' E:754,002.43'
F	IRON PIPE W/BRASS CAP N:599,333.89' E:754,012.98'
G	IRON PIPE W/BRASS CAP N:596,693.25' E:754,022.46'
H	IRON PIPE W/BRASS CAP N:594,054.11' E:754,032.64'
I	IRON PIPE W/BRASS CAP N:591,416.32' E:754,040.39'
J	IRON PIPE W/BRASS CAP N:591,411.21' E:751,401.67'
K	IRON PIPE W/BRASS CAP N:591,389.09' E:748,761.24'
L	IRON PIPE W/BRASS CAP N:594,029.45' E:748,751.66'
M	IRON PIPE W/BRASS CAP N:596,670.25' E:748,742.32'
N	CALCULATED CORNER N:599,310.18' E:748,732.70'
O	IRON PIPE W/BRASS CAP N:601,950.12' E:748,723.08'
P	IRON PIPE W/BRASS CAP N:604,589.82' E:748,713.64'
Q	CALCULATED CORNER N:601,961.74' E:751,362.75'
R	IRON PIPE W/BRASS CAP N:596,681.86' E:751,381.27'

PBEX Operations, LLC

Hydrogen Sulfide Contingency Plan

Safety Is Paramount!

PBEX believes **Safety is Paramount** to success! Any employee or contractor has the responsibility to cease work and evaluate safety or environmental risks.

No one should put themselves or others in danger to complete a task.

Table of Contents

1. INTRODUCTION

H2S equipment will be rigged up 2 days prior to reaching any potential H2S containing zone or 1,000 feet before the top of the first H2S zone, whichever comes first. Drilling into any potential H2S zone shall not commence until the On-Site Supervisor has confirmed this plan is active and in place.

It is the intention of PBEX Operations, LLC (PBEX) and the drilling, completion, or work-over contractor to make every effort to provide adequate safeguards against harm to people from the effects of hydrogen sulfide, which may be released into the atmosphere under emergency conditions. The ideas and suggestions of the individuals involved in the well work are highly welcomed and act as a fundamental tool for providing the safest working conditions possible.

The On-Site Supervisor is required to enforce these procedures; they are set up for your safety and the safety of all others.

2. PURPOSE

It is PBEX's intent to provide a safe working environment and the safety of the general public is of utmost concern. All precautions will be taken to maintain a safe working environment and protect the general public.

The On-Site Supervisor will enforce all aspects of the H2S Contingency Plan.

In the event there is an accidental H2S release:

Notify and protect the general public.

Notify the state and local government agencies.

Notify the regulatory agencies the OCD, the BLM, the TxRRC.

This is a mandatory notification.

A. OPERATING PROCEDURES

On-Site personnel shall be referred to as "In Scope Personnel" or "Out of Scope Personnel", per the following definitions:

In Scope Personnel – Personnel who will be working or present in potential H2S release areas, including the rig floor, cellar, pits, core handling areas, and shaker areas who duties would require them to don a respirator and perform a task under air during an H2S release. Completions, work-over, or production will include work areas where H2S could also be released.

Out of Scope Personnel – Personnel who will not be working or present in potential H2S areas. Such personnel include rig site visitors, delivery drivers, trucking, camp services personnel, and other non-essential personnel. Such personnel would only proceed to Muster Area for further instructions.

GENERAL:

All regularly assigned In Scope Personnel shall be thoroughly trained in the use of breathing equipment, emergency procedures, as well as their personal roles and responsibilities. The On-Site Supervisor shall keep a list of all personnel who have been through the on-site H2S training program. This documentation will remain onsite until the project is completed.

All personnel arriving on site must notify the On-Site Supervisor of their presence and sign-in. In Scope Personnel will be required to complete the on-site H2S training as well as respirator fit testing before starting work.

B. PROCEDURES TO BE INITIATED PRIOR TO H2S

H2S CONTINGENCY PLAN COMPLIANCE:
All H2S safety equipment must be in place, inspected, tested, and calibrated. Inspections must be documented for auditing purposes.
H2S Safety Company Representative will be responsible for rigging up and maintaining all continuous H2S fixed point detectors and bump testing of the monitoring equipment.

C. DRILLING BELOW CONTINGENCY PLAN DEPTH

The H2S Safety Company Representative will conduct regular safety talks, maintain site safety equipment, and support safety efforts. H2S training records will be kept on location for all personnel and for auditing purposes.

All on site personnel will be made aware of the location of spare air bottles, briefing areas, visual alarms, windsocks, resuscitation equipment, portable fire extinguishers, H2S monitors, sensors, etc.

Upon the initial detection of H2S, all areas of poor ventilation shall be inspected by utilizing a portable H2S detector and the buddy system, the buddy system will be utilized during all alarm situations. When an alarm sounds, In Scope Personnel will don Self-Contained Breathing Apparatus (SCBA), shut the well in, and proceed to the Muster Area for roll call.

D. PROCEDURES PROGRAM

a. Muster Areas will have two 30-minute SCBA's. On-Site Personnel will assemble to the up-wind Muster Area under alarm conditions or when instructed to do so by the On-Site Supervisor or the H2S Safety Company Representative. Windsocks will be placed in strategic and highly visible areas.
b. One multi-channel, fixed point H2S/ LEL monitor with sensors will be located at the shale shaker, bell nipple, mud pits, and rig floor. Should the alarms be shut off to silence the sirens, the visual alarms must remain in service to warn of potential H2S presence. The H2S Safety Company Representative will continuously monitor H2S levels and will reactivate the alarms if H2S concentrations increase to a dangerous level.
c. At a minimum, one direct means of egress will always be available for onsite personnel.
d. Explosion-proof electric fans (bug blowers) will be positioned on drilling jobs to ensure adequate circulation at all critical work areas. The on-site supervisor will notify the drilling contractor of any additional gas dispersion needs.
e. A kill line securely anchored and of ample strength, will be laid to the well-head from a safe location. This line is to be used only in an emergency.

E. GENERAL

a. The On-Site Supervisor will have complete charge of the rig and will take whatever action is deemed necessary to ensure safety, protect the well, and prevent additional damage.

3. EMERGENCY PHONE NUMBERS

Emergency Contact List			
Person	**State**	**Location**	**Cell Phone**
PBEX Operations, LLC Contacts			
EHS/Regulatory Manager - Mikah Thomas	Tx	Midland	(432) 661-7106
VP of Operations - Bryce Oman	Tx	Midland	(281) 627-6166
Regulatory Agencies			
Bureau of Land Management	NM	Carlsbad	(575) 886-6544
Bureau of Land Management	NM	Hobbs	(575) 393-3612
Bureau of Land Management	NM	Roswell	(575) 622-5335
Bureau of Land Management	NM	Santa Fe	(505) 954-2000
DOT Judicial Pipelines - Incident Reporting NM Public Regulation Commission	NM	Santa Fe	(505) 827-3549
New Mexico Air Quality Bureau	NM	Santa Fe	(505) 827-1494
New Mexico Oil Conservation Division	NM	Artesia	(575) 748-1283
New Mexico Oil Conservation Division	NM	Hobbs	(575) 393-6161
New Mexico Oil Conservation Division	NM	Santa Fe	(505) 476-3770
New Mexico OCD Environmental Bureau	NM	Santa Fe	(505) 827-7152
New Mexico Environmental Department	NM	Hobbs	(575) 827-9329
NM State Emergency Response Center	NM	Santa Fe	(505) 476-9600
EPA Hotline	Tx	Dallas	(214) 665-6444
Federal OSHA, Area Office	Tx	Lubbock	(806) 472-7681
National Response Center		Washington, D.C.	(800) 424-8803
National Infrastructure Coordinator Center		Washington, D.C.	(202) 282-2901
OSHA	Tx	Lubbock	(806) 472-7681
Railroad Commission of Texas	Tx	Austin	(512) 463-6838
Railroad Commission of Texas- District 08	Tx	Midland	(432) 684-5581
Railroad Commission of Texas- District 8A	Tx	Lubbock	(806) 698-6509
Texas Commission of Environmental Quality	Tx	Austin	(512) 239-1000
Texas Commission of Environmental Quality- Region 2	Tx	Lubbock	(806) 796-7092
Texas Commission of Environmental Quality- Region 7	Tx	Midland	(432) 570-1359
Medical Facilities			
Artesia General Hospital	NM	Artesia	(575) 748-3333
Guadalupe County Hospital	NM	Carlsbad	(575) 887-6633
Lea Regional Hospital	NM	Hobbs	(575) 492-5000
Nor-Lea General Hospital	NM	Lovington	(575) 396-6611
Covenant Medical Center	Tx	Lubbock	(806) 725-1011
Covenant Medical Center Lakeside	Tx	Lubbock	(806) 725-6000
Medical Center Hospital	Tx	Odessa	(432) 640-4000
Midland Memorial Hospital	Tx	Midland	(432) 685-1111
Odessa Regional Hospital	Tx	Odessa	(432) 334-8200
University Medical Center	Tx	Lubbock	(806) 725-8200
Law Enforcement - Sheriff			
Eddy County Sheriff's Department	NM	Artesia	(575) 746-2704
Eddy County Sheriff's Department	NM	Carlsbad	(575) 887-7551
Lea County Sherrif's Department	NM	Eunice	(575) 384-2020
Lea County Sherrif's Department	NM	Hobbs	(575) 393-2515
Lea County Sherrif's Department	NM	Lovington	(575) 396-3611
Ector County Sheriff's Department	Tx	Odessa	(432) 335-3050
Lubbock County Sheriff's Department	Tx	Lubbock	(806) 775-7009
Midland County Sheriff's Department	Tx	Midland	(432) 688-1277

Person	State	Location	Cell Phone
Law Enforcement - Police			
Artesia City Police	NM	Artesia	(575) 746-2704
Carlsbad City Police	NM	Carlsbad	(575) 885-2111
Eunice City Police	NM	Eunice	(575) 394-2112
Hobbs City Police	NM	Hobbs	(575) 397-9265
Jal City Police	NM	Jal	(575) 395-2501
Lovington City Police	NM	Lovington	(575) 396-2811
Lubbock City Police	Tx	Lubbock	(806) 775-2865
Midland City Police	Tx	Midland	(432) 685-7113
Odessa City Police	Tx	Odessa	(432) 335-3378
Law Enforcement - FBI			
FBI	NM	Albuquerque	(505) 224-2000
FBI	Tx	Midland	(432) 570-0255
Law Enforcement - DPS (911)			
NM State Police	NM	Artesia	(575) 746-2704
NM State Police	NM	Carlsbad	(575) 885-3137
NM State Police	NM	Eunice	(575) 392-5588
NM State Police	NM	Hobbs	(575) 392-5588
Firefighting and Rescue (911)			
Artesia	NM	Artesia	(575) 746-5751
Carlsbad	NM	Carlsbad	(575) 885-3125
Eunice	NM	Eunice	(575) 394-2111
Hobbs	NM	Hobbs	(575) 397-9308
Jal	NM	Jal	(575) 395-2221
Maljamar	NM	Maljamar	(575) 676-4100
Lovington	Tx	Lovington	(575) 396-2359
Midland	Tx	Midland	(432) 685-7346
Odessa	Tx	Odessa	(432) 335-4659
West Odessa	Tx	Odessa	(432) 381-3033
Ambulance (911)			
Artesia Ambulance	NM	Artesia	(575) 746-2701
Carlsbad Ambulance	NM	Carlsbad	(575) 885-2111
Eunice Ambulance	NM	Eunice	(575) 394-3258
Hobbs Ambulance	NM	Hobbs	(575) 397-9308
Jal Ambulance	NM	Jal	(575) 395-3501
Lovington Ambulance	NM	Lovington	(575) 396-2811
Midland Ambulance	Tx	Midland	(432) 685-7499
Odessa Ambulance	Tx	Odessa	(432) 335-3378
Medical Air Ambulance Service			
AEROCARE	Tx	Lubbock	(800) 627-2376
Odessa Care Star	Tx	Odessa	(888) 624-3571
Flight for Life	Tx	Lubbock	(806) 743-9911
Med Flight Air Amb	NM	Albequerque	(505) 842-4433
SB Air Med Service	NM	Albequerque	(505) 842-4949
Southwest MediVac	NM	Hobbs	(800) 242-6199

Emergency Call Guidance

- Give the Dispatcher the nature of the emergency, your callback number, and location.
- If there is a fire, keep in mind not all volunteer firefighters are trained to properly respond to gas and other releases.
- If caller cannot contact Dispatch using the phone numbers above, dial 911. Cell phone and satellite phone calls to 911 will go to the nearest tower.

Always send a person to flag and direct incoming emergency response vehicles to the scene.

4. CONDITIONS AND EMERGENCY PROCEDURES

The "H2S Emergency Duties" will be followed as initial means of emergency response in the event of an H2S release. Once the well is secured and all personnel have been accounted for, other operational conditions will apply.

H2S EMERGENCY DUTIES		
ALARMS-->	**WELL CONTROL 1 LONG BLAST**	**H2S EMERGENCY LIGHTS & SIRENS**
POSITION	**RESPONSIBILITY**	**AREA**
OPERATOR REPRESENTATIVE	Proceed to Muster Area for Headcount. Assist with Personnel Accountability	MUSTER AREA
RIG MANAGER	Proceed to Muster Area. Assess the Current Situation and Notify on-site supervisor and HSE Manager. If Personnel are Missing, Don SCBA and Start Search and Rescue.	MUSTER AREA
DRILLER	While Drilling- Don SCBA, Secure Well, Proceed Down, and Ensure Well is Secure at Accumulator and Proceed to Muster Area. While Tripping- Don SCBA and Assist Floorhand in Installing Full Opening Safety Valve (FOSV). Proceed to Accumulator and Ensure the Well is Secure. Proceed to Muster Area. (Off duty Driller: If Personnel are Missing, Don SCBA and Start Search and Rescue.)	RIG/MUSTER AREA
DERRICKHAND	While Drilling- Evacuate to Muster Area. Do not Close Valves or Turn off Equipment. While Tripping- Remain on the Derrick Board Unless Otherwise Notified.	RIG/MUSTER AREA
MOTORHAND	Evacuate Immediately and Proceed to Muster Area. If Needed, Inspect Personnel.	MUSTER AREA/TRAILERS
MAKE-UP FLOORHAND	While Drilling- Evacuate Area and Proceed to Muster Area. While Tripping- Employee is to Don SCBA and Assist Driller in Installing FOSV. Proceed to Muster Area.	RIG FLOOR/MUSTER AREA
LEAD TONG FLOORHAND	Evacuate Area and Proceed to Muster Area. If the Make up Hand is Not Present, Don SCBA and Assist Driller in Installing the FOSV.	RIG FLOOR/MUSTER AREA
ADDITIONAL HANDS	Evacuate Area. Proceed to Muster Area.	RIG FLOOR/MUSTER AREA
H2S TECHNICIAN	Don SCBA/On-Site Evaluation	RIG/MUSTER AREA

A. Definition of Operational "Conditions"

CONDITION I	"POSSIBLE DANGER"
Warning Flags:	Green
Alarms:	No Alarm. Less than 10 ppm
Characterized By:	Drilling operations in formations that may contain hydrogen sulfide. This condition remains in effect unless H_2S is detected and it becomes necessary to go to Condition II.
General Action:	a. Be alert for a condition change.
	b. Check all safety equipment for availability and proper functioning.
	c. Perform all drills for familiarization and proficiency.
CONDITION II	**"MODERATE DANGER"**
Warning Flags:	Yellow
Alarms:	Activated at 10 ppm H2S. Continuous flashing light.
Characterized By:	Drilling operations in formations containing hydrogen sulfide. This condition will remain in effect until adding chemicals to the mud system neutralizes the hydrogen sulfide or it becomes necessary to go to Condition III.
General Action:	a. Be alert for a condition change.
	b. WHEN DRILLING AHEAD - Driller and designated crewmember will don 5 min SCBA, shut-in well and immediately proceed to the muster area. WHEN TRIPPING – Driller and two designated crewmembers will don 30 min SCBA, shut in well and immediately proceed to the muster area. Derrickman will stay on the board until well is secure and instructed to come down.
	c. All In-Scope Personnel will proceed directly to the appropriate muster area.
	d. Remain in muster area, take roll call and wait for instructions
	e. Contact the H2S Safety Company Representative if not on location.
	f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H_2S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases.
	g. All Out of Scope Personnel will report to the appropriate muster area.
CONDITION III	**"EXTREME DANGER"**
Warning Flags:	Red
Alarms:	Actuate at 15 ppm. Continuous Sirens and Flashing Lights
Characterized by:	Critical well operations which pose an immeidate threat of H2S exposure to on-site personnel and potential thret to the public.
General Action:	a. WHEN DRILLING AHEAD- Driller and designated crewmember will don 30 min SCBA, shut-in well and immediately proceed to the muster area. WHEN TRIPPING- Driller and two designated crewmembers will don 30 min SCBA, shut in well and immediately proceed to the muster area. Derrickman will stay on the board until well is secure and instructed to come down.
	b. All In-Scope Personnel should don SCBA if nearby and immediately proceed to muster area. If SCBA in not nearby at time of alarm, DO NOT GO TOWARDS RIG AREA, but proceed directly to the muster area.
	c. All Out of Scope Personnel shall go to the muster area and then evacuate the location as applicable.
	d. Remain in the muster area, take roll call, and wait for instructions.
	e. Contact H2S Safety Company Representative
	f. On-site personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H_2S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases. Use the buddy system.
	g. A cascade breathing air systems shall be utilized to conduct any additional on rig work required to correct the H2S release condition.
	h. If well is ignited do not assume area is safe. SO2 is hazardous and not all H2S will burn.

B. H2S Emergency Procedures- On-Site Personnel

Upon discovering the release of H2S gas in the ambient air by warning alarms or in any other way. Do Not Panic!

Hold your breath donning the nearest SCBA, move up or across-wind from the H2S sensing devices. Go to the closest available muster area. Do Not Panic!

1. Responsibilities of Well-Site Personnel

In the event of a Condition II or Condition III H2S release, all In-Scope Personnel will immediately don their SCBA, shut in the well, and proceed upwind to the nearest Muster Area.
All Out of Scope Personnel will immediately proceed upwind to the nearest Muster Area. Consideration will be given to evacuating Out of Scope Personnel.

a. Well-Site Representatives
   1. Level III Conditions will deem public and police notification as applicable.
   2. Immediately upon assessing the situation, set this plan into action by initiating the proper procedures to contain the gas and notify the appropriate people and agencies.
   3. Ensure that Out of Scope Personnel proceed to the Muster Area.
   4. Ensure location entrance has barricades (hi-visibility cones) and entrance is closed. Keep the number of persons on location to a minimum during hazardous operations.
   5. Advise anyone allowed to enter the site H2S gas may be encountered and the potential hazards that may exist.
   6. Out of Scope Personnel should be evacuated from location if the situation warrants.

b. On-Site Supervisor
   1. On-Site Supervisor will assume responsibilities of well-site.
   2. Ensure that the alarm area indicated by the fixed H2S monitor is checked and verified with a portable H2S gas detector.
   3. Ensure On-Site Personnel in the Muster Area are instructed on emergency actions required.
   4. Ensure On-Site Personnel at the drill floor area are instructed on emergency actions required.
   5. Ensure all On-Site Personnel observe the appropriate safety and emergency procedures.
   6. Ensure all On-Site Personnel are accounted for and provided emergency assistance as necessary.

c. H2S Safety Company Representative
   1. Don nearest SCBA and report to Muster Area for roll call, take a buddy masked up and check monitor.
   2. If H2S is flared, check for sulfur dioxide (SO2) near the flare as necessary. Take hourly readings at different perimeters, log readings and record all findings.
   3. Ensure personnel at Muster Area are instructed on emergency actions required.
   4. Ensure explosion-proof electric fans (bug blowers) are positioned as necessary to disperse H2S away from workers.
   5. Ensure appropriate warning flags are displayed.
   6. Ensure that all On-Site Personnel are in SCBA as necessary.
   7. Ensure that all On-Site Personnel are accounted for and provide emergency assistance as necessary.
   8. Be prepared to evacuate.

5. SAFETY EQUIPMENT

a. All respirators will be used and maintained in conformance with ANSI Z88.2, American National Standard for respiratory protection.
b. PPE must be provided and used.
c. In the event of an alarm the derrick hand will stay in the derrick until the well is secured, then proceed to the muster area.
d. If asphyxiation occurs, the victim must be moved to fresh air and immediately given artificial respiration. To assure readiness, bottles of oxygen will be checked at regular intervals and an extra tank kept on hand.
e. All equipment must be stored in an available location so that anyone engaged in normal work situations is no more than "one breath away" from a mask.

6. TOXICITY OF VARIOUS GASES

Common Name ppm[4]	Lethal Formula	Gravity[1]	PEL (OSHA)[2]	STEL[3]	LD
Hydrogen Cyanide	HCN	0.94	10	150	300
Hydrogen Sulfide	H_2S	1.18	20	Peak- 50ppm	600
Sulfur Dioxide	SO_2	2.21	2	5 ppm	1000
Chlorine	CL_2	2.45	1		
Carbon Monoxide	CO	0.97	35	200/1 Hour	1000
Carbon Dioxide	CO_2	1.52	5000	5%	10%
Methane	CH_4	0.55	90000		

1 Air = 1.0

2 Permissible - Concentration believed that all workers may repeatedly be exposed, day after day, without adverse effect.

3 STEL - Short Term Exposure Limit. A 15-minute time weighted average.

4 LD (Lethal Dose) - Concentration that will cause death with short-term exposure.

7. PROPERTIES OF GASES

1. CARBON DIOXIDE
   a. Carbon Dioxide (CO2) is considered inert and is commonly used to extinguish fires. It is 1.52 times heavier than air and will concentrate in low areas of still air. Humans cannot breathe air containing more than 10% CO2 without losing conscience or becoming disorientated in a few minutes. Continued exposure to CO2 after being affected will cause convulsions, coma, and respiratory failure.
   b. The threshold limit of CO2 is 5000 ppm. Short-term exposure to 50,000 ppm (5%) is reasonable. This gas is colorless, odorless, and can be tolerated in relatively high concentrations.

2. HYDROGEN SULFIDE
   a. Hydrogen Sulfide (H2S) is a colorless, transparent, flammable gas. It is heavier than air and may accumulate in low places.
   b. Although the slightest presence of H2S in the air is normally detectable by its characteristic "rotten egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of H2S.

H2S CONCENTRATION		
% H2S	PPM	EFFECTS
0.001	10	Safe for 8 hours without respirator. Obvious and unpleasant odor.
0.0015	15	Safe for 15 minutes of exposure without respirator.
0.01	100	Kills smell in 3-15 minutes; may sting eyes and throat.
0.02	200	Kills smell quickly; stings eyes and throat.
0.05	500	Dizziness; breathing ceases in a few minutes; need prompt artificial respiration.
0.07	700	Rapid Unconsciousness; death will result if not rescued promptly.
0.1	1000	Instant unconsciousness, followed by death within minutes.

3. SULPHUR DIOXIDE
   a. Sulfur Dioxide (SO2) is a colorless, non-flammable, transparent gas.
   b. SO2 is produced during the burning of H2S. Although SO2 is heavier than air, it can be picked up by a breeze and carried downwind at elevated temperatures. Since SO2 is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of SO2:

SO2 CONCENTRATION		
% SO2	PPM	EFFECTS
0.0005	3 to 5	Pungent odor, normally a person can detect SO2 in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
0.05	500	Causes a sense of suffocation, event with the first breath.

8. EVACUATION OF THE GENERAL PUBLIC

In the event of an emergency, the following steps will be immediately taken:

1. Warn each resident and transient's down-wind within 3,000' or calculated ROE.
2. Warn all residences in the 3,000' or calculated ROE.
3. Notify proper authorities and enlist their assistance in warning residents and transients.
4. Divert traffic in the vicinity away from the potentially dangerous area.
5. Have a guard at the entrance of the well site to monitor essential and non-essential traffic.

PBEX

Lea, County NM (NAD 83)
Moonraker Pad
MOONRAKER 15-27 FED 301H

Wellbore #1

Plan: Plan 1

Standard Planning Report

26 November, 2024

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project Lea, County NM (NAD 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Moonraker Pad

Site Position:		**Northing:**	606,572.79 usft	**Latitude:**	32.66568196
From:	Map	**Easting:**	750,033.23 usft	**Longitude:**	-103.65515652
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well MOONRAKER 15-27 FED 301H

Well Position	**+N/-S**	0.00 usft	**Northing:**	606,731.28 usft	**Latitude:**	32.66611754
	+E/-W	0.00 usft	**Easting:**	750,034.95 usft	**Longitude:**	-103.65514764
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,669.84 usft
Grid Convergence:		0.37 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM CURRENT	11/8/2024	6.45	60.44	47,443.70000000

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.00

Plan Survey Tool Program **Date** 11/25/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	26,356.15	Plan 1 (Wellbore #1)	MWD+IFR1+MS	
				OWSG MWD + IFR1 + Multi-St	

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,262.74	13.25	293.97	2,256.84	31.01	-69.74	2.00	2.00	0.00	293.97	
5,877.18	13.25	293.97	5,775.00	367.69	-826.98	0.00	0.00	0.00	0.00	
6,539.92	0.00	0.00	6,431.84	398.69	-896.72	2.00	-2.00	0.00	180.00	
10,295.12	0.00	0.00	10,187.04	398.69	-896.72	0.00	0.00	0.00	0.00	
11,195.12	90.00	187.55	10,760.00	-169.30	-972.00	10.00	10.00	0.00	187.55	
11,582.92	90.00	179.79	10,760.00	-556.00	-996.82	2.00	0.00	-2.00	-90.00	
26,356.93	90.00	179.79	10,760.00	-15,329.92	-943.72	0.00	0.00	0.00	0.00	MOONRAKER 301H

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,700.00	2.00	293.97	1,699.98	0.71	-1.59	-0.71	2.00	2.00	0.00
1,800.00	4.00	293.97	1,799.84	2.84	-6.38	-2.84	2.00	2.00	0.00
1,900.00	6.00	293.97	1,899.45	6.38	-14.34	-6.38	2.00	2.00	0.00
2,000.00	8.00	293.97	1,998.70	11.33	-25.48	-11.33	2.00	2.00	0.00
2,100.00	10.00	293.97	2,097.47	17.68	-39.77	-17.68	2.00	2.00	0.00
2,200.00	12.00	293.97	2,195.62	25.43	-57.20	-25.43	2.00	2.00	0.00
2,262.74	13.25	293.97	2,256.84	31.01	-69.74	-31.01	2.00	2.00	0.00
Start 3614.44 hold at 2262.74 MD									
2,300.00	13.25	293.97	2,293.11	34.48	-77.54	-34.48	0.00	0.00	0.00
2,400.00	13.25	293.97	2,390.45	43.79	-98.49	-43.79	0.00	0.00	0.00
2,500.00	13.25	293.97	2,487.78	53.11	-119.44	-53.11	0.00	0.00	0.00
2,600.00	13.25	293.97	2,585.12	62.42	-140.39	-62.42	0.00	0.00	0.00
2,700.00	13.25	293.97	2,682.46	71.74	-161.34	-71.74	0.00	0.00	0.00
2,800.00	13.25	293.97	2,779.79	81.05	-182.30	-81.05	0.00	0.00	0.00
2,900.00	13.25	293.97	2,877.13	90.37	-203.25	-90.37	0.00	0.00	0.00
3,000.00	13.25	293.97	2,974.46	99.68	-224.20	-99.68	0.00	0.00	0.00
3,100.00	13.25	293.97	3,071.80	109.00	-245.15	-109.00	0.00	0.00	0.00
3,200.00	13.25	293.97	3,169.14	118.31	-266.10	-118.31	0.00	0.00	0.00
3,300.00	13.25	293.97	3,266.47	127.63	-287.05	-127.63	0.00	0.00	0.00
3,400.00	13.25	293.97	3,363.81	136.94	-308.00	-136.94	0.00	0.00	0.00
3,500.00	13.25	293.97	3,461.14	146.26	-328.95	-146.26	0.00	0.00	0.00
3,600.00	13.25	293.97	3,558.48	155.57	-349.90	-155.57	0.00	0.00	0.00
3,700.00	13.25	293.97	3,655.82	164.88	-370.85	-164.88	0.00	0.00	0.00
3,800.00	13.25	293.97	3,753.15	174.20	-391.80	-174.20	0.00	0.00	0.00
3,900.00	13.25	293.97	3,850.49	183.51	-412.75	-183.51	0.00	0.00	0.00
4,000.00	13.25	293.97	3,947.82	192.83	-433.70	-192.83	0.00	0.00	0.00
4,100.00	13.25	293.97	4,045.16	202.14	-454.65	-202.14	0.00	0.00	0.00
4,200.00	13.25	293.97	4,142.50	211.46	-475.60	-211.46	0.00	0.00	0.00
4,300.00	13.25	293.97	4,239.83	220.77	-496.56	-220.77	0.00	0.00	0.00
4,400.00	13.25	293.97	4,337.17	230.09	-517.51	-230.09	0.00	0.00	0.00
4,500.00	13.25	293.97	4,434.50	239.40	-538.46	-239.40	0.00	0.00	0.00
4,600.00	13.25	293.97	4,531.84	248.72	-559.41	-248.72	0.00	0.00	0.00
4,700.00	13.25	293.97	4,629.18	258.03	-580.36	-258.03	0.00	0.00	0.00
4,800.00	13.25	293.97	4,726.51	267.35	-601.31	-267.35	0.00	0.00	0.00
4,900.00	13.25	293.97	4,823.85	276.66	-622.26	-276.66	0.00	0.00	0.00
5,000.00	13.25	293.97	4,921.18	285.98	-643.21	-285.98	0.00	0.00	0.00

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
5,100.00	13.25	293.97	5,018.52	295.29	-664.16	-295.29	0.00	0.00	0.00
5,200.00	13.25	293.97	5,115.86	304.61	-685.11	-304.61	0.00	0.00	0.00
5,300.00	13.25	293.97	5,213.19	313.92	-706.06	-313.92	0.00	0.00	0.00
5,400.00	13.25	293.97	5,310.53	323.24	-727.01	-323.24	0.00	0.00	0.00
5,500.00	13.25	293.97	5,407.86	332.55	-747.96	-332.55	0.00	0.00	0.00
5,600.00	13.25	293.97	5,505.20	341.87	-768.91	-341.87	0.00	0.00	0.00
5,700.00	13.25	293.97	5,602.54	351.18	-789.86	-351.18	0.00	0.00	0.00
5,800.00	13.25	293.97	5,699.87	360.50	-810.81	-360.50	0.00	0.00	0.00
5,877.18	13.25	293.97	5,775.00	367.69	-826.98	-367.69	0.00	0.00	0.00
Start Drop -2.00									
5,900.00	12.80	293.97	5,797.23	369.78	-831.68	-369.78	2.00	-2.00	0.00
6,000.00	10.80	293.97	5,895.11	378.08	-850.37	-378.08	2.00	-2.00	0.00
6,100.00	8.80	293.97	5,993.65	385.00	-865.92	-385.00	2.00	-2.00	0.00
6,200.00	6.80	293.97	6,092.72	390.51	-878.31	-390.51	2.00	-2.00	0.00
6,300.00	4.80	293.97	6,192.20	394.61	-887.55	-394.61	2.00	-2.00	0.00
6,400.00	2.80	293.97	6,291.98	397.30	-893.60	-397.30	2.00	-2.00	0.00
6,500.00	0.80	293.97	6,391.92	398.58	-896.47	-398.58	2.00	-2.00	0.00
6,539.92	0.00	0.00	6,431.84	398.69	-896.72	-398.69	2.00	-2.00	0.00
Start 3755.20 hold at 6539.92 MD									
6,600.00	0.00	0.00	6,491.92	398.69	-896.72	-398.69	0.00	0.00	0.00
6,700.00	0.00	0.00	6,591.92	398.69	-896.72	-398.69	0.00	0.00	0.00
6,800.00	0.00	0.00	6,691.92	398.69	-896.72	-398.69	0.00	0.00	0.00
6,900.00	0.00	0.00	6,791.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,000.00	0.00	0.00	6,891.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,100.00	0.00	0.00	6,991.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,200.00	0.00	0.00	7,091.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,300.00	0.00	0.00	7,191.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,400.00	0.00	0.00	7,291.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,500.00	0.00	0.00	7,391.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,600.00	0.00	0.00	7,491.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,700.00	0.00	0.00	7,591.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,800.00	0.00	0.00	7,691.92	398.69	-896.72	-398.69	0.00	0.00	0.00
7,900.00	0.00	0.00	7,791.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,000.00	0.00	0.00	7,891.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,100.00	0.00	0.00	7,991.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,200.00	0.00	0.00	8,091.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,300.00	0.00	0.00	8,191.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,400.00	0.00	0.00	8,291.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,500.00	0.00	0.00	8,391.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,600.00	0.00	0.00	8,491.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,700.00	0.00	0.00	8,591.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,800.00	0.00	0.00	8,691.92	398.69	-896.72	-398.69	0.00	0.00	0.00
8,900.00	0.00	0.00	8,791.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,000.00	0.00	0.00	8,891.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,100.00	0.00	0.00	8,991.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,200.00	0.00	0.00	9,091.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,300.00	0.00	0.00	9,191.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,400.00	0.00	0.00	9,291.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,500.00	0.00	0.00	9,391.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,600.00	0.00	0.00	9,491.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,700.00	0.00	0.00	9,591.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,800.00	0.00	0.00	9,691.92	398.69	-896.72	-398.69	0.00	0.00	0.00
9,900.00	0.00	0.00	9,791.92	398.69	-896.72	-398.69	0.00	0.00	0.00
10,000.00	0.00	0.00	9,891.92	398.69	-896.72	-398.69	0.00	0.00	0.00

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
10,100.00	0.00	0.00	9,991.92	398.69	-896.72	-398.69	0.00	0.00	0.00
10,200.00	0.00	0.00	10,091.92	398.69	-896.72	-398.69	0.00	0.00	0.00
10,295.12	0.00	0.00	10,187.04	398.69	-896.72	-398.69	0.00	0.00	0.00
Start Build 10.00									
10,300.00	0.49	187.55	10,191.92	398.67	-896.72	-398.67	10.00	10.00	0.00
10,350.00	5.49	187.55	10,241.84	396.09	-897.07	-396.09	10.00	10.00	0.00
10,400.00	10.49	187.55	10,291.34	389.20	-897.98	-389.20	10.00	10.00	0.00
10,450.00	15.49	187.55	10,340.04	378.07	-899.45	-378.07	10.00	10.00	0.00
10,500.00	20.49	187.55	10,387.58	362.76	-901.48	-362.76	10.00	10.00	0.00
10,550.00	25.49	187.55	10,433.60	343.41	-904.05	-343.41	10.00	10.00	0.00
10,600.00	30.49	187.55	10,477.74	320.16	-907.13	-320.16	10.00	10.00	0.00
10,650.00	35.49	187.55	10,519.66	293.18	-910.70	-293.18	10.00	10.00	0.00
10,700.00	40.49	187.55	10,559.06	262.68	-914.75	-262.68	10.00	10.00	0.00
10,750.00	45.49	187.55	10,595.62	228.90	-919.22	-228.90	10.00	10.00	0.00
10,800.00	50.49	187.55	10,629.07	192.08	-924.10	-192.08	10.00	10.00	0.00
10,850.00	55.49	187.55	10,659.16	152.51	-929.35	-152.51	10.00	10.00	0.00
10,900.00	60.49	187.55	10,685.66	110.50	-934.92	-110.50	10.00	10.00	0.00
10,950.00	65.49	187.55	10,708.36	66.35	-940.77	-66.35	10.00	10.00	0.00
11,000.00	70.49	187.55	10,727.09	20.41	-946.86	-20.41	10.00	10.00	0.00
11,050.00	75.49	187.55	10,741.72	-26.97	-953.14	26.97	10.00	10.00	0.00
11,100.00	80.49	187.55	10,752.12	-75.44	-959.56	75.44	10.00	10.00	0.00
11,150.00	85.49	187.55	10,758.22	-124.62	-966.08	124.62	10.00	10.00	0.00
11,195.12	90.00	187.55	10,760.00	-169.30	-972.00	169.30	10.00	10.00	0.00
Start DLS 2.00 TFO -90.00									
11,200.00	90.00	187.45	10,760.00	-174.14	-972.64	174.14	2.00	0.00	-2.00
11,300.00	90.00	185.45	10,760.00	-273.50	-983.88	273.50	2.00	0.00	-2.00
11,400.00	90.00	183.45	10,760.00	-373.19	-991.64	373.19	2.00	0.00	-2.00
11,500.00	90.00	181.45	10,760.00	-473.10	-995.92	473.10	2.00	0.00	-2.00
11,582.92	90.00	179.79	10,760.00	-556.00	-996.82	556.00	2.00	0.00	-2.00
Start 14774.01 hold at 11582.91 MD									
11,600.00	90.00	179.79	10,760.00	-573.09	-996.76	573.09	0.00	0.00	0.00
11,700.00	90.00	179.79	10,760.00	-673.09	-996.40	673.09	0.00	0.00	0.00
11,800.00	90.00	179.79	10,760.00	-773.09	-996.04	773.09	0.00	0.00	0.00
11,900.00	90.00	179.79	10,760.00	-873.09	-995.68	873.09	0.00	0.00	0.00
12,000.00	90.00	179.79	10,760.00	-973.08	-995.32	973.08	0.00	0.00	0.00
12,100.00	90.00	179.79	10,760.00	-1,073.08	-994.96	1,073.08	0.00	0.00	0.00
12,200.00	90.00	179.79	10,760.00	-1,173.08	-994.60	1,173.08	0.00	0.00	0.00
12,300.00	90.00	179.79	10,760.00	-1,273.08	-994.24	1,273.08	0.00	0.00	0.00
12,400.00	90.00	179.79	10,760.00	-1,373.08	-993.88	1,373.08	0.00	0.00	0.00
12,500.00	90.00	179.79	10,760.00	-1,473.08	-993.52	1,473.08	0.00	0.00	0.00
12,600.00	90.00	179.79	10,760.00	-1,573.08	-993.16	1,573.08	0.00	0.00	0.00
12,700.00	90.00	179.79	10,760.00	-1,673.08	-992.80	1,673.08	0.00	0.00	0.00
12,800.00	90.00	179.79	10,760.00	-1,773.08	-992.45	1,773.08	0.00	0.00	0.00
12,900.00	90.00	179.79	10,760.00	-1,873.08	-992.09	1,873.08	0.00	0.00	0.00
13,000.00	90.00	179.79	10,760.00	-1,973.08	-991.73	1,973.08	0.00	0.00	0.00
13,100.00	90.00	179.79	10,760.00	-2,073.08	-991.37	2,073.08	0.00	0.00	0.00
13,200.00	90.00	179.79	10,760.00	-2,173.08	-991.01	2,173.08	0.00	0.00	0.00
13,300.00	90.00	179.79	10,760.00	-2,273.08	-990.65	2,273.08	0.00	0.00	0.00
13,400.00	90.00	179.79	10,760.00	-2,373.08	-990.29	2,373.08	0.00	0.00	0.00
13,500.00	90.00	179.79	10,760.00	-2,473.08	-989.93	2,473.08	0.00	0.00	0.00
13,600.00	90.00	179.79	10,760.00	-2,573.07	-989.57	2,573.07	0.00	0.00	0.00
13,700.00	90.00	179.79	10,760.00	-2,673.07	-989.21	2,673.07	0.00	0.00	0.00
13,800.00	90.00	179.79	10,760.00	-2,773.07	-988.85	2,773.07	0.00	0.00	0.00

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
13,900.00	90.00	179.79	10,760.00	-2,873.07	-988.49	2,873.07	0.00	0.00	0.00
14,000.00	90.00	179.79	10,760.00	-2,973.07	-988.13	2,973.07	0.00	0.00	0.00
14,100.00	90.00	179.79	10,760.00	-3,073.07	-987.77	3,073.07	0.00	0.00	0.00
14,200.00	90.00	179.79	10,760.00	-3,173.07	-987.41	3,173.07	0.00	0.00	0.00
14,300.00	90.00	179.79	10,760.00	-3,273.07	-987.05	3,273.07	0.00	0.00	0.00
14,400.00	90.00	179.79	10,760.00	-3,373.07	-986.69	3,373.07	0.00	0.00	0.00
14,500.00	90.00	179.79	10,760.00	-3,473.07	-986.34	3,473.07	0.00	0.00	0.00
14,600.00	90.00	179.79	10,760.00	-3,573.07	-985.98	3,573.07	0.00	0.00	0.00
14,700.00	90.00	179.79	10,760.00	-3,673.07	-985.62	3,673.07	0.00	0.00	0.00
14,800.00	90.00	179.79	10,760.00	-3,773.07	-985.26	3,773.07	0.00	0.00	0.00
14,900.00	90.00	179.79	10,760.00	-3,873.07	-984.90	3,873.07	0.00	0.00	0.00
15,000.00	90.00	179.79	10,760.00	-3,973.07	-984.54	3,973.07	0.00	0.00	0.00
15,100.00	90.00	179.79	10,760.00	-4,073.06	-984.18	4,073.06	0.00	0.00	0.00
15,200.00	90.00	179.79	10,760.00	-4,173.06	-983.82	4,173.06	0.00	0.00	0.00
15,300.00	90.00	179.79	10,760.00	-4,273.06	-983.46	4,273.06	0.00	0.00	0.00
15,400.00	90.00	179.79	10,760.00	-4,373.06	-983.10	4,373.06	0.00	0.00	0.00
15,500.00	90.00	179.79	10,760.00	-4,473.06	-982.74	4,473.06	0.00	0.00	0.00
15,600.00	90.00	179.79	10,760.00	-4,573.06	-982.38	4,573.06	0.00	0.00	0.00
15,700.00	90.00	179.79	10,760.00	-4,673.06	-982.02	4,673.06	0.00	0.00	0.00
15,800.00	90.00	179.79	10,760.00	-4,773.06	-981.66	4,773.06	0.00	0.00	0.00
15,900.00	90.00	179.79	10,760.00	-4,873.06	-981.30	4,873.06	0.00	0.00	0.00
16,000.00	90.00	179.79	10,760.00	-4,973.06	-980.94	4,973.06	0.00	0.00	0.00
16,100.00	90.00	179.79	10,760.00	-5,073.06	-980.59	5,073.06	0.00	0.00	0.00
16,200.00	90.00	179.79	10,760.00	-5,173.06	-980.23	5,173.06	0.00	0.00	0.00
16,300.00	90.00	179.79	10,760.00	-5,273.06	-979.87	5,273.06	0.00	0.00	0.00
16,400.00	90.00	179.79	10,760.00	-5,373.06	-979.51	5,373.06	0.00	0.00	0.00
16,500.00	90.00	179.79	10,760.00	-5,473.06	-979.15	5,473.06	0.00	0.00	0.00
16,600.00	90.00	179.79	10,760.00	-5,573.06	-978.79	5,573.06	0.00	0.00	0.00
16,700.00	90.00	179.79	10,760.00	-5,673.05	-978.43	5,673.05	0.00	0.00	0.00
16,800.00	90.00	179.79	10,760.00	-5,773.05	-978.07	5,773.05	0.00	0.00	0.00
16,900.00	90.00	179.79	10,760.00	-5,873.05	-977.71	5,873.05	0.00	0.00	0.00
17,000.00	90.00	179.79	10,760.00	-5,973.05	-977.35	5,973.05	0.00	0.00	0.00
17,100.00	90.00	179.79	10,760.00	-6,073.05	-976.99	6,073.05	0.00	0.00	0.00
17,200.00	90.00	179.79	10,760.00	-6,173.05	-976.63	6,173.05	0.00	0.00	0.00
17,300.00	90.00	179.79	10,760.00	-6,273.05	-976.27	6,273.05	0.00	0.00	0.00
17,400.00	90.00	179.79	10,760.00	-6,373.05	-975.91	6,373.05	0.00	0.00	0.00
17,500.00	90.00	179.79	10,760.00	-6,473.05	-975.55	6,473.05	0.00	0.00	0.00
17,600.00	90.00	179.79	10,760.00	-6,573.05	-975.19	6,573.05	0.00	0.00	0.00
17,700.00	90.00	179.79	10,760.00	-6,673.05	-974.83	6,673.05	0.00	0.00	0.00
17,800.00	90.00	179.79	10,760.00	-6,773.05	-974.48	6,773.05	0.00	0.00	0.00
17,900.00	90.00	179.79	10,760.00	-6,873.05	-974.12	6,873.05	0.00	0.00	0.00
18,000.00	90.00	179.79	10,760.00	-6,973.05	-973.76	6,973.05	0.00	0.00	0.00
18,100.00	90.00	179.79	10,760.00	-7,073.05	-973.40	7,073.05	0.00	0.00	0.00
18,200.00	90.00	179.79	10,760.00	-7,173.04	-973.04	7,173.04	0.00	0.00	0.00
18,300.00	90.00	179.79	10,760.00	-7,273.04	-972.68	7,273.04	0.00	0.00	0.00
18,400.00	90.00	179.79	10,760.00	-7,373.04	-972.32	7,373.04	0.00	0.00	0.00
18,500.00	90.00	179.79	10,760.00	-7,473.04	-971.96	7,473.04	0.00	0.00	0.00
18,600.00	90.00	179.79	10,760.00	-7,573.04	-971.60	7,573.04	0.00	0.00	0.00
18,700.00	90.00	179.79	10,760.00	-7,673.04	-971.24	7,673.04	0.00	0.00	0.00
18,800.00	90.00	179.79	10,760.00	-7,773.04	-970.88	7,773.04	0.00	0.00	0.00
18,900.00	90.00	179.79	10,760.00	-7,873.04	-970.52	7,873.04	0.00	0.00	0.00
19,000.00	90.00	179.79	10,760.00	-7,973.04	-970.16	7,973.04	0.00	0.00	0.00
19,100.00	90.00	179.79	10,760.00	-8,073.04	-969.80	8,073.04	0.00	0.00	0.00
19,200.00	90.00	179.79	10,760.00	-8,173.04	-969.44	8,173.04	0.00	0.00	0.00

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
19,300.00	90.00	179.79	10,760.00	-8,273.04	-969.08	8,273.04	0.00	0.00	0.00
19,400.00	90.00	179.79	10,760.00	-8,373.04	-968.73	8,373.04	0.00	0.00	0.00
19,500.00	90.00	179.79	10,760.00	-8,473.04	-968.37	8,473.04	0.00	0.00	0.00
19,600.00	90.00	179.79	10,760.00	-8,573.04	-968.01	8,573.04	0.00	0.00	0.00
19,700.00	90.00	179.79	10,760.00	-8,673.04	-967.65	8,673.04	0.00	0.00	0.00
19,800.00	90.00	179.79	10,760.00	-8,773.03	-967.29	8,773.03	0.00	0.00	0.00
19,900.00	90.00	179.79	10,760.00	-8,873.03	-966.93	8,873.03	0.00	0.00	0.00
20,000.00	90.00	179.79	10,760.00	-8,973.03	-966.57	8,973.03	0.00	0.00	0.00
20,100.00	90.00	179.79	10,760.00	-9,073.03	-966.21	9,073.03	0.00	0.00	0.00
20,200.00	90.00	179.79	10,760.00	-9,173.03	-965.85	9,173.03	0.00	0.00	0.00
20,300.00	90.00	179.79	10,760.00	-9,273.03	-965.49	9,273.03	0.00	0.00	0.00
20,400.00	90.00	179.79	10,760.00	-9,373.03	-965.13	9,373.03	0.00	0.00	0.00
20,500.00	90.00	179.79	10,760.00	-9,473.03	-964.77	9,473.03	0.00	0.00	0.00
20,600.00	90.00	179.79	10,760.00	-9,573.03	-964.41	9,573.03	0.00	0.00	0.00
20,700.00	90.00	179.79	10,760.00	-9,673.03	-964.05	9,673.03	0.00	0.00	0.00
20,800.00	90.00	179.79	10,760.00	-9,773.03	-963.69	9,773.03	0.00	0.00	0.00
20,900.00	90.00	179.79	10,760.00	-9,873.03	-963.33	9,873.03	0.00	0.00	0.00
21,000.00	90.00	179.79	10,760.00	-9,973.03	-962.97	9,973.03	0.00	0.00	0.00
21,100.00	90.00	179.79	10,760.00	-10,073.03	-962.62	10,073.03	0.00	0.00	0.00
21,200.00	90.00	179.79	10,760.00	-10,173.03	-962.26	10,173.03	0.00	0.00	0.00
21,300.00	90.00	179.79	10,760.00	-10,273.03	-961.90	10,273.03	0.00	0.00	0.00
21,400.00	90.00	179.79	10,760.00	-10,373.02	-961.54	10,373.02	0.00	0.00	0.00
21,500.00	90.00	179.79	10,760.00	-10,473.02	-961.18	10,473.02	0.00	0.00	0.00
21,600.00	90.00	179.79	10,760.00	-10,573.02	-960.82	10,573.02	0.00	0.00	0.00
21,700.00	90.00	179.79	10,760.00	-10,673.02	-960.46	10,673.02	0.00	0.00	0.00
21,800.00	90.00	179.79	10,760.00	-10,773.02	-960.10	10,773.02	0.00	0.00	0.00
21,900.00	90.00	179.79	10,760.00	-10,873.02	-959.74	10,873.02	0.00	0.00	0.00
22,000.00	90.00	179.79	10,760.00	-10,973.02	-959.38	10,973.02	0.00	0.00	0.00
22,100.00	90.00	179.79	10,760.00	-11,073.02	-959.02	11,073.02	0.00	0.00	0.00
22,200.00	90.00	179.79	10,760.00	-11,173.02	-958.66	11,173.02	0.00	0.00	0.00
22,300.00	90.00	179.79	10,760.00	-11,273.02	-958.30	11,273.02	0.00	0.00	0.00
22,400.00	90.00	179.79	10,760.00	-11,373.02	-957.94	11,373.02	0.00	0.00	0.00
22,500.00	90.00	179.79	10,760.00	-11,473.02	-957.58	11,473.02	0.00	0.00	0.00
22,600.00	90.00	179.79	10,760.00	-11,573.02	-957.22	11,573.02	0.00	0.00	0.00
22,700.00	90.00	179.79	10,760.00	-11,673.02	-956.87	11,673.02	0.00	0.00	0.00
22,800.00	90.00	179.79	10,760.00	-11,773.02	-956.51	11,773.02	0.00	0.00	0.00
22,900.00	90.00	179.79	10,760.00	-11,873.01	-956.15	11,873.01	0.00	0.00	0.00
23,000.00	90.00	179.79	10,760.00	-11,973.01	-955.79	11,973.01	0.00	0.00	0.00
23,100.00	90.00	179.79	10,760.00	-12,073.01	-955.43	12,073.01	0.00	0.00	0.00
23,200.00	90.00	179.79	10,760.00	-12,173.01	-955.07	12,173.01	0.00	0.00	0.00
23,300.00	90.00	179.79	10,760.00	-12,273.01	-954.71	12,273.01	0.00	0.00	0.00
23,400.00	90.00	179.79	10,760.00	-12,373.01	-954.35	12,373.01	0.00	0.00	0.00
23,500.00	90.00	179.79	10,760.00	-12,473.01	-953.99	12,473.01	0.00	0.00	0.00
23,600.00	90.00	179.79	10,760.00	-12,573.01	-953.63	12,573.01	0.00	0.00	0.00
23,700.00	90.00	179.79	10,760.00	-12,673.01	-953.27	12,673.01	0.00	0.00	0.00
23,800.00	90.00	179.79	10,760.00	-12,773.01	-952.91	12,773.01	0.00	0.00	0.00
23,900.00	90.00	179.79	10,760.00	-12,873.01	-952.55	12,873.01	0.00	0.00	0.00
24,000.00	90.00	179.79	10,760.00	-12,973.01	-952.19	12,973.01	0.00	0.00	0.00
24,100.00	90.00	179.79	10,760.00	-13,073.01	-951.83	13,073.01	0.00	0.00	0.00
24,200.00	90.00	179.79	10,760.00	-13,173.01	-951.47	13,173.01	0.00	0.00	0.00
24,300.00	90.00	179.79	10,760.00	-13,273.01	-951.11	13,273.01	0.00	0.00	0.00
24,400.00	90.00	179.79	10,760.00	-13,373.01	-950.76	13,373.01	0.00	0.00	0.00
24,500.00	90.00	179.79	10,760.00	-13,473.00	-950.40	13,473.00	0.00	0.00	0.00
24,600.00	90.00	179.79	10,760.00	-13,573.00	-950.04	13,573.00	0.00	0.00	0.00

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
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)
24,700.00	90.00	179.79	10,760.00	-13,673.00	-949.68	13,673.00	0.00	0.00	0.00
24,800.00	90.00	179.79	10,760.00	-13,773.00	-949.32	13,773.00	0.00	0.00	0.00
24,900.00	90.00	179.79	10,760.00	-13,873.00	-948.96	13,873.00	0.00	0.00	0.00
25,000.00	90.00	179.79	10,760.00	-13,973.00	-948.60	13,973.00	0.00	0.00	0.00
25,100.00	90.00	179.79	10,760.00	-14,073.00	-948.24	14,073.00	0.00	0.00	0.00
25,200.00	90.00	179.79	10,760.00	-14,173.00	-947.88	14,173.00	0.00	0.00	0.00
25,300.00	90.00	179.79	10,760.00	-14,273.00	-947.52	14,273.00	0.00	0.00	0.00
25,400.00	90.00	179.79	10,760.00	-14,373.00	-947.16	14,373.00	0.00	0.00	0.00
25,500.00	90.00	179.79	10,760.00	-14,473.00	-946.80	14,473.00	0.00	0.00	0.00
25,600.00	90.00	179.79	10,760.00	-14,573.00	-946.44	14,573.00	0.00	0.00	0.00
25,700.00	90.00	179.79	10,760.00	-14,673.00	-946.08	14,673.00	0.00	0.00	0.00
25,800.00	90.00	179.79	10,760.00	-14,773.00	-945.72	14,773.00	0.00	0.00	0.00
25,900.00	90.00	179.79	10,760.00	-14,873.00	-945.36	14,873.00	0.00	0.00	0.00
26,000.00	90.00	179.79	10,760.00	-14,972.99	-945.01	14,972.99	0.00	0.00	0.00
26,100.00	90.00	179.79	10,760.00	-15,072.99	-944.65	15,072.99	0.00	0.00	0.00
26,200.00	90.00	179.79	10,760.00	-15,172.99	-944.29	15,172.99	0.00	0.00	0.00
26,300.00	90.00	179.79	10,760.00	-15,272.99	-943.93	15,272.99	0.00	0.00	0.00
26,356.93	90.00	179.79	10,760.00	-15,329.92	-943.72	15,329.92	0.00	0.00	0.00
TD at 26356.93									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
MOONRAKER 301H SH - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	606,731.28	750,034.95	32.66611754	-103.65514764
MOONRAKER 301H LTI - plan hits target center - Point	0.00	0.00	10,760.00	-15,239.92	-944.05	591,491.36	749,090.90	32.62424668	-103.65852987
MOONRAKER 301H PP - plan misses target center by 0.23usft at 15806.65usft MD (10760.00 TVD, -4779.71 N, -981.64 E) - Point	0.00	0.00	10,760.00	-4,779.71	-981.87	601,951.57	749,053.08	32.65299759	-103.65843687
MOONRAKER 301H PP - plan misses target center by 0.02usft at 21086.56usft MD (10760.00 TVD, -10059.59 N, -962.66 E) - Point	0.00	0.00	10,760.00	-10,059.59	-962.64	596,671.69	749,072.31	32.63848534	-103.65848339
MOONRAKER 301H FT - plan misses target center by 250.07usft at 10750.00usft MD (10595.62 TVD, 228.90 N, -919.22 E) - Point	0.00	0.00	10,760.00	398.75	-1,000.86	607,130.03	749,034.09	32.66723105	-103.65839161
MOONRAKER 301H BH - plan hits target center - Point	0.00	0.00	10,760.00	-15,329.92	-943.72	591,401.36	749,091.22	32.62399931	-103.65853067

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
21,046.60	10,760.00	20" Casing	20	24

Planning Report

Database:	1 - EDM Production	**Local Co-ordinate Reference:**	Well MOONRAKER 15-27 FED 301H
Company:	PBEX	**TVD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Project:	Lea, County NM (NAD 83)	**MD Reference:**	RKB 30' + GL 3669.84 @ 3699.84usft
Site:	Moonraker Pad	**North Reference:**	Grid
Well:	MOONRAKER 15-27 FED 301H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,600.00	1,600.00	0.00	0.00	Start Build 2.00
2,262.74	2,256.84	31.01	-69.74	Start 3614.44 hold at 2262.74 MD
5,877.18	5,775.00	367.69	-826.98	Start Drop -2.00
6,539.92	6,431.84	398.69	-896.72	Start 3755.20 hold at 6539.92 MD
10,295.12	10,187.04	398.69	-896.72	Start Build 10.00
11,195.12	10,760.00	-169.30	-972.00	Start DLS 2.00 TFO -90.00
11,582.92	10,760.00	-556.00	-996.82	Start 14774.01 hold at 11582.91 MD
26,356.93	10,760.00	-15,329.92	-943.72	TD at 26356.93

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: PBEX Operaions, LLC **OGRID:** 332544 **Date:** 12/15/2024 .

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Moonraker 15-27 Fed Com 001H	30-025-	C-15-19S-33E	903 FNL 1324 FWL	1348	5063	2402
Moonraker 15-27 Fed Com 002H	30-025-	C-15-19S-33E	903 FNL 1344 FWL	1348	5063	2402
Moonraker 15-27 Fed Com 003H	30-025-	C-15-19S-33E	904 FNL 1364 FWL	1348	5063	2402
Moonraker 15-27 Fed Com 101H	30-025-	C-15-19S-33E	703 FNL 1346 FWL	1141	3197	2862
Moonraker 15-27 Fed Com 102H	30-025-	C-15-19S-33E	704 FNL 1406 FWL	1141	3197	2862
Moonraker 15-27 Fed Com 201H	30-025-	C-15-19S-33E	703 FNL 1326 FWL	1176	1733	2585
Moonraker 15-27 Fed Com 203H	30-025-	C-15-19S-33E	704 FNL 1366 FWL	1176	1733	2585
Moonraker 15-27 Fed Com 205H	30-025-	C-15-19S-33E	704 FNL 1386 FWL	1176	1733	2585
Moonraker 15-27 Fed Com 301H	30-025-	C-15-19S-33E	503 FNL 1329 FWL	1171	1946	3188
Moonraker 15-27 Fed Com 302H	30-025-	C-15-19S-33E	504 FNL 1389 FWL	1171	1946	3188
Moonraker 15-27 Fed Com 303H	30-025-	C-15-19S-33E	505 FNL 1469 FWL	1171	1946	3188
Moonraker 15-27 Fed Com 601H	30-025-	C-15-19S-33E	503 FNL 1349 FWL	1142	3348	4174
Moonraker 15-27 Fed Com 602H	30-025-	C-15-19S-33E	504 FNL 1409 FWL	1142	3348	4174
Moonraker 15-27 Fed Com 603H	30-025-	C-15-19S-33E	505 FNL 1449 FWL	1142	3348	4174
Moonraker 15-27 Fed Com 801H	30-025-	C-15-19S-33E	504 FNL 1369 FWL	740	6964	3684
Moonraker 15-27 Fed Com 802H	30-025-	C-15-19S-33E	505 FNL 1429 FWL	740	6964	3684

IV. Central Delivery Point Name: Moonraker 15-27 Fed Com Battery [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Moonraker 15-27 Fed Com 001H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 002H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 003H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 101H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 102H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 201H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025

Moonraker 15-27 Fed Com 203H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 205H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 301H	30-025-	6/1/2025	6/16/2025	2/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 302H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 303H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 601H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 602H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 603H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 201H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025
Moonraker 15-27 Fed Com 203H	30-025-	6/1/2025	6/16/2025	8/1/2025	8/15/2025	8/15/2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Mikah Thomas
Title: Regulatory Manager
E-mail Address: mikah@pbex.com
Date: 12/15/2024
Phone: 432.661.7106

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

LSE_NAME	ProdDate	Proj Oil	Proj Gas	Proj NGL	Proj Water
3BSS TIER 1	Month 1	12489	18672	101947	54250
3BSS TIER 1	Month 2	35477	58969	321970	96582
3BSS TIER 1	Month 3	29843	52446	286357	73714
3BSS TIER 1	Month 4	25696	46558	254207	63160
3BSS TIER 1	Month 5	21361	39555	215969	52327
3BSS TIER 1	Month 6	19384	36481	199184	47367
3BSS TIER 1	Month 7	17270	32922	179752	42123
3BSS TIER 1	Month 8	15109	29093	158848	36798
3BSS TIER 1	Month 9	14259	27683	151147	34687
3BSS TIER 1	Month 10	12706	24837	135609	30879
3BSS TIER 1	Month 11	12174	23934	130682	29561
3BSS TIER 1	Month 12	11341	22409	122351	27518
3BSS TIER 1	Month 13	9620	19088	104222	23330
3BSS TIER 1	Month 14	10045	20004	109220	24347
3BSS TIER 1	Month 15	9183	18349	100184	22248
3BSS TIER 1	Month 16	8995	18025	98419	21783
3BSS TIER 1	Month 17	8275	16628	90787	20033
3BSS TIER 1	Month 18	8152	16418	89641	19727
3BSS TIER 1	Month 19	7783	15711	85780	18830
3BSS TIER 1	Month 20	7213	14588	79650	17446
3BSS TIER 1	Month 21	7152	14490	79116	17293
3BSS TIER 1	Month 22	6653	13501	73716	16083
3BSS TIER 1	Month 23	6619	13453	73453	15998
3BSS TIER 1	Month 24	6379	12983	70889	15415
3BSS TIER 1	Month 25	5570	11351	61976	13458
3BSS TIER 1	Month 26	5969	12178	66493	14420
3BSS TIER 1	Month 27	5592	11421	62358	13506
3BSS TIER 1	Month 28	5599	11449	62511	13523
3BSS TIER 1	Month 29	5257	10759	58743	12694
3BSS TIER 1	Month 30	5275	10806	58998	12736
3BSS TIER 1	Month 31	5125	10507	57367	12371
3BSS TIER 1	Month 32	4824	9899	54050	11645
3BSS TIER 1	Month 33	4854	9967	54418	11715
3BSS TIER 1	Month 34	4576	9404	51348	11045
3BSS TIER 1	Month 35	4611	9482	51771	11127
3BSS TIER 1	Month 36	4497	9254	50527	10852
3BSS TIER 1	Month 37	4109	8461	46194	9914
3BSS TIER 1	Month 38	4293	8844	48288	10357

VI. Separation Equipment:
Separation equipment installed at each PBEX facility is designed for maximum anticipated throughput and pressure to minimize waste. Separation equipment is designed and built according to ASME Sec VIII Div I to ensure gas is separated from liquid streams according to projected production.

VII./VIII. Operational & Best Management Practices:
1. General Requirements for Venting and Flaring of Natural Gas:

- In all circumstances, PBEX will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.
- PBEX installs and operates vapor recovery units (VRUs) in new facilities to minimize venting and flaring. If a VRU experiences operating issues, it is quickly assessed so that action can be taken to return the VRU to operation or, if necessary, facilities are shut-in to reduce the venting or flaring of natural gas.

2. During Drilling Operations:

- Flare stacks will be located a minimum of 110 feet from the nearest surface hole location.
- If an emergency or malfunction occurs, gas will be flared or vented to avoid a risk of an immediate and substantial adverse impact on public health, safety or the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Natural gas is captured or combusted if technically feasible using best industry practices and control technologies, such as the use of separators (e.g., Sand Commanders) during normal drilling and completions operations.

3. During Completions:

- PBEX typically does not complete traditional flowback, instead PBEX will flow produced oil, water, and gas to a centralized tank battery and continuously recover salable quality gas. If PBEX completes traditional flowback, PBEX conducts reduced emission completions as required by 40 CFR 60.5375a by routing gas to a gas flow line as soon as practicable once there is enough gas to operate a separator. Venting does not occur once there is enough gas to operate a separator
- Normally, during completion, a flare is not on-site. A Snubbing Unit will have a flare on-site, and the flare volume will be estimated.
- If natural gas does not meet pipeline quality specifications, the gas is sampled twice per week until the gas meets the specifications.

4. During Production:

- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and facilities to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will be available upon request by the division.
- Monitor manual liquid unloading for wells on-site, takes all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time and takes reasonable actions to minimize venting to the maximum extent practicable.
- In all circumstances, PBEX will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.

• PBEX's design for new facilities utilizes air-activated pneumatic controllers and pumps.

• If natural gas does not meet pipeline quality specifications, the gas is sampled twice per week until the gas meets the specifications.

• PBEX does not produce oil or gas until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.

5. Performance Standards

• Equipment installed at each facility is designed for maximum anticipated throughput and pressure to minimize waste. Tank pressure relief systems utilize soft seated or metal seated PSVs, as appropriate, which are both designed to not leak.

• Flare stack has been designed for proper size and combustion efficiency. The new flares will have a continuous pilot and will be located at least 100 feet from the well and storage tanks and will be securely anchored.

• New tanks will be equipped with an automatic gauging system.

• An AVO inspection will be performed daily (at minimum) for active wells and facilities to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will be available upon request by the division.

6. Measurement or Estimation of Vented and Flared Natural Gas

• PBEX estimates or measures the volume of natural gas that is vented, flared, or beneficially used during drilling operations, regardless of the reason or authorization for such venting or flaring.

• Where technically practicable, PBEX will install meters on flares installed after May 25, 2021. Meters will conform to industry standards. Bypassing the meter will only occur for inspecting and servicing of the meter.

PBEX
Moonraker 15-27 FED 301H
SHL: 503' FNL & 1,329' FWL' of Section 15-19S-33E
BHL: 10' FSL & 330' FWL Section 27-19S-33E
Lea County, New Mexico

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD KB	MD'	Bearing
Rustler	1,440	1,440	Water
Salt	1,760	1,760	N/A
Tansil	N/A		Not Present
Base of Salt	3,080	3,080	N/A
Yates	3,280	3,300	N/A
Seven Rivers	3,550	3,570	N/A
Queen	4,240	4,260	N/A
Grayburg	4,490	4,490	N/A
San Andres	5,100	5,120	N/A
Capitan Reef	N/A		Not Present
Cherry Canyon	6,000	6,000	N/A
Brushy Canyon	6,365	6,365	N/A
Bone Spring Lime	7,805	7,825	N/A
Bone Spring Avalon	8,330	8,330	Hydrocarbons
Bone Spring 1 Sand	9,115	9,165	Hydrocarbons
Bone Spring 2 Carbonate	9,380	9,430	Hydrocarbons
Bone Spring 2 Sand	9,600	9,650	Hydrocarbons
Bone Spring 3 Carbonate	10,170	10,230	Hydrocarbons
Bone Spring 3 Sand	10,620	10,700	Hydrocarbons
Wolfcamp XY*	10,770	10,860	Hydrocarbons
Wolfcamp A*	10,810	10,910	Hydrocarbons
Wolfcamp B	10,930	11,060	Hydrocarbons
Wolfcamp C	11,320	11,460	Hydrocarbons
Wolfcamp D	11,450	11,600	Hydrocarbons
Strawn	12,150	12,150	Not Encountered
Intermediate Casing Point	9,960	9,960	
KOP	10,060	10,180	
TD	10,760	26,357	

2. NOTABLE ZONES

The 3rd Bone Spring is the goal.

3. PRESSURE CONTROL

A 13.625" 10M Blowout Preventer system will be installed on a multi-bowl (speed head) wellhead with a 13.625" flanged casing spool.

Top flange of casing spool will be set in a cellar below ground level. BOP system will consist of a single pipe ram on the bottom, mud cross, double pipe ram with blind rams on bottom and pipe rams on top, and annular preventer. Blowout preventer will be installed on top of the 13.375" surface casing and will remain installed to TD of the well. Wellhead, blowout preventer, and choke manifold diagram and test pressures are included.

Variance is requested to use a co-flex hose between the BOP system and choke manifold. A typical co-flex pressure test certificate is attached. An equipment specific co-flex pressure test certificate will be on site when testing the BOP.

All casing strings will be tested in accordance with 43 CFR 3172.7(b)(8).

The BOP system will be isolated and tested by an independent tester to 250 psi low and 10,000 psi high for 10 minutes.per CFR 3172 requirements. If 10M system, we will test annular to 100% of WP (5,000 psi)

The Surface Casing will be pressure tested to 250 psi low and 1500 psi high. Intermediate Casing will be pressure tested to 250 psi low and (.22 psi x Length Of Casing, which is equivalent to 2191.2 psi) high for 30 minutes

PBEX
Moonraker 15-27 FED 301H
SHL: 503' FNL & 1,329' FWL' of Section 15-19S-33E
BHL: 10' FSL & 330' FWL Section 27-19S-33E
Lea County, New Mexico

4. CASING & CEMENT

Variance is requested for an option to use a surface rig to drill the surface hole, set the surface casing, and cement the surface casing. If the schedule between rigs would preclude presetting the surface casing, then the primary rig will MIRU and drill all of the well.

All casing will be API and new. See attached casing assumption worksheet.

Casing Details

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	BTM MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	1,600	0	1600	J-55	54.5	BTC	1.125	1.125	1.6
Intermediate	12 1/4	9 5/8	API	No	0	10,060	0	9,960	L80-HC	40	BTC	1.125	1.125	1.6
Production	8 3/4	5 1/2	API	No	0	26,357	0	10,760	P-110 EC	20	CDC HTQ	1.125	1.125	1.6

Load Case VARIANCE REQUEST: Intermediate Casing will be kept 1/3 fluid filled at all times
Alternate grades and/or higher weights could be substituted to meet maximum stimulation pressures or due to coupling availability.

Cement Details

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	751	2.22	1667.3	12.5	100%	C	Gel, Accelerator, LCM
	Tail	1200	302	1.84	555.8	13.2	100%	C	Gel, Accelerator, LCM
Intermediate	Lead	0	736	6.19	4556.4	10	60%	C or H	Fluid Loss, Retarder, LCM, Possibly beads
	Tail	8960	130	1.38	179.4	13.8	15%	C or H	Fluid Loss, Retarder, LCM
Production	Lead	6460	525	1.49	782.3	12.5	0%	H	Fluid Loss, Retarder, LCM
	Tail	9460	3525	1.49	5252.6	13.5	20%	H	Fluid Loss, Retarder, LCM

5. MUD PROGRAM

An electronic PVT mud system will monitor flow rate, pump pressure, stroke rate, and volume. All necessary mud products (barite, bentonite, LCM) to control weight and fluid loss will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used.

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1,600'	Water Based Spud Mud	8.30	30-60	NC
Intermediate	1600	10,060	Brine Diesel Emulsion	8.8-9.6	35-45	NC
Production	10,060	26357	Oil Based Mud	12-12.5	35-65	4-6

6. CORES, TEST, & LOGS

No core or drill stem test is planned. A 2-person mud logging program will be used from ≈3000' to TD. GR log will be acquired by MWD tools from the intermediate casing to TD.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is ≈4626.8 psi.
Anticipated bottom hole pressure is ≈6994 psi. Expected bottom hole temperature is ≈240˚ F.

8. OTHER INFORMATION

Anticipated spud date is upon approval.

On the same pad, we will drill the shallower wells/target zones first to confirm the loss potential of the exposes vertical zones. If losses occur, we will use a contigency 4S design that covers said loss zone.

Sante Fe Main Office
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General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
PBEX Operations, LLC 223 West Wall Street Midland, TX 79701	332544
	Action Number: 460862
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
mikahthomas	Cement is required to circulate on both surface and intermediate1 strings of casing.	5/12/2025
mikahthomas	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	5/12/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	5/20/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	5/20/2025
matthew.gomez	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	5/20/2025
matthew.gomez	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	5/20/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	5/20/2025
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	5/20/2025