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

Sundry Print Report
03/25/2024

Well Name: HEGEMON BS FEDERAL COM	**Well Location:** T26S / R29E / SEC 28 / NWNW /	**County or Parish/State:**
Well Number: 501H	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMNM138837	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3001553936	**Well Status:** Approved Application for Permit to Drill	**Operator:** MARATHON OIL PERMIAN LLC

Notice of Intent

Sundry ID: 2775247

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 02/15/2024

Time Sundry Submitted: 10:32

Date proposed operation will begin: 02/23/2024

Procedure Description: Marathon Oil Permian respectfully request approval for an APD change for the Hegemon 21 WD Fed #23H as shown below and on the attached: Well Name change to: Hegemon BS Federal Com #501H Change target formation from: Wolfcamp to Bone Spring Change TVD: 8550' Cement variance request SHL & BHL changes: Approved: SHL: 675' FNL & 725' FWL, Sec. 28, BHL: 330' FNL& 1694' FWL, Sec. 21. Proposed: SHL: 266' FNL & 720' FWL, Sec 28, BHL: 100' FNL & 1320' FWL, Sec. 21 Change to Casing Design: Change from 4 string to 3 string design. Approved Csg design: Surf, 13.375 set @ 370' Int I, 9.625" set @ 2700' Int II, 7" set @ 10080' Prod, 4.5" liner set @ 9780-15301' Proposed casing design: Surf, 13.375 set @ 553' Int, 9.625" set @ 7802' Prod, 5.5" set @ 13404' Please see attached drill plan for cement design changes, C102, directional plan. NO new disturbance request. Well pad approved 550' X 750 no change.

NOI Attachments

Procedure Description

Hegemon_Well_Pad_diagram_20240215095454.pdf

Cement_Variance_Request_20240215095206.pdf

Hegemon_BS_Federal_Com_501H_Dir_Plan_20240215095152.pdf

Hegemon_BS_Federal_Com_501H_Drill_Plan_20240215095130.pdf

C102_Hegemon_BS_Federal_Com_501H_20240215095111.pdf

Well Name: HEGEMON BS FEDERAL COM	**Well Location:** T26S / R29E / SEC 28 / NWNW /	**County or Parish/State:**
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US Well Number: 3001553936	**Well Status:** Approved Application for Permit to Drill	**Operator:** MARATHON OIL PERMIAN LLC

Conditions of Approval

Additional

HEGEMON_BS_FEDERAL_COM_501H___SUNDRY_COA_20240308121953.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: TERRI STATHEM

Signed on: FEB 15, 2024 09:53 AM

Name: MARATHON OIL PERMIAN LLC

Title: Regulatory Compliance Manager

Street Address: 990 TOWN & COUNTRY BLVD

City: HOUSTON **State:** TX

Phone: (713) 296-2113

Email address: TSTATHEM@MARATHONOIL.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CODY LAYTON

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 03/25/2024

Signature: Cody R. Layton

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. NMNM138837

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No. HEGEMON 21 WD FEDERAL/23H

2. Name of Operator MARATHON OIL PERMIAN LLC

9. API Well No. 3001553936

3a. Address 990 TOWN & COUNTRY BLVD, HOUSTON, TX

3b. Phone No. *(include area code)* (713) 296-2113

10. Field and Pool or Exploratory Area PURPLE SAGE/BONE SPRING

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SEC 28/T26S/R29E/NMP

11. Country or Parish, State
EDDY/NM

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

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

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

Marathon Oil Permian respectfully request approval for an APD change for the Hegemon 21 WD Fed #23H as shown below and on the attached:
Well Name change to: Hegemon BS Federal Com #501H
Change target formation from: Wolfcamp to Bone Spring
Change TVD: 8550'
Cement variance request
SHL & BHL changes:
Approved: SHL: 675' FNL & 725' FWL, Sec. 28, BHL: 330' FNL& 1694' FWL, Sec. 21.
Proposed: SHL: 266' FNL & 720' FWL, Sec 28, BHL: 100' FNL & 1320' FWL, Sec. 21

Change to Casing Design: Change from 4 string to 3 string design.
Approved Csg design:
Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
TERRI STATHEM / Ph: (713) 296-2113

Title Regulatory Compliance Manager

Signature (Electronic Submission)

Date 02/15/2024

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by
CODY LAYTON / Ph: (575) 234-5959 / Approved

Title Assistant Field Manager Lands &

Date 03/25/2024

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

Office CARLSBAD

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Additional Remarks

Surf, 13.375 set @ 370'

Int I, 9.625" set @ 2700'

Int II, 7" set @ 10080'

Prod, 4.5" liner set @ 9780-15301'

Proposed casing design:

Surf, 13.375 set @ 553'

Int, 9.625" set @ 7802'

Prod, 5.5" set @ 13404'

Please see attached drill plan for cement design changes, C102, directional plan.

NO new disturbance request. Well pad approved 550' X 750 no change.

Location of Well

0. SHL: NWNW / 675 FNL / 725 FWL / TWSP: 26S / RANGE: 29E / SECTION: 28 / LAT: 32.0193088 / LONG: -103.9955959 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 330 FSL / 1679 FWL / TWSP: 26S / RANGE: 29E / SECTION: 21 / LAT: 32.0220395 / LONG: -103.9925175 (TVD: 10529 feet, MD: 10716 feet)

BHL: NENW / 330 FNL / 1694 FWL / TWSP: 26S / RANGE: 29E / SECTION: 21 / LAT: 32.0345945 / LONG: -103.9927625 (TVD: 10622 feet, MD: 15301 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

Hegemon BS Federal Com #501H – Sundry COA – All previous COAs still apply
S28 T26S R29E
SHL: 266N 720W
BHL: 100N 1320W

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COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Wellhead Variance	○ Diverter		
Other	☐ 4 String	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus

Cementing	☐ Contingency Cement Squeeze	☐ EchoMeter	☑ Primary Cement Squeeze
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	☐ Casing Clearance

A. CASING

Alternate Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **553** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch intermediate casing shall be set at approximately **7802** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

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

    Option 2 (Bradenhead):
    Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

    a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 4975'**

b. Second stage:

- Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

Operator has proposed to pump down 9-5/8" X 13-3/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 9-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.

3. The **5-1/2** inch production casing shall be set at approximately **13,404** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

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

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)

- If well located in Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

- If well located in 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.

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

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24

hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing 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 part 3170 Subpart 3172** 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

e. The results of the test shall be reported to the appropriate BLM office.

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

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

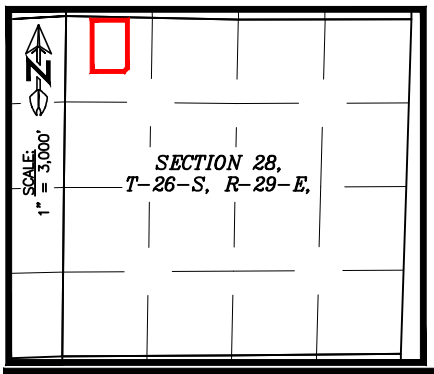
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

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.

KPI 3/8/2024



WELL PAD LOCATION PLAT

HEGEMON 21 FED
SEC. 28 TWP. 26-S RGE. 29-E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: ROSS RANCH, N.M.

75' 0' 75' 150'
SCALE: 1" = 150'

SECTION 21, T-26-S, R-29-E
TIE-1
2" IRON PIPE W/GLO CAP FND FOR NW COR. OF SEC. 28
SECTION 28, T-26-S, R-29-E
PROPOSED LEASE ROAD
PROPOSED LEASE ROAD
℄ EXISTING LEASE ROAD
℄ TWO-TRACK REROUTE
ARCH LIMITS
750'
1000'
100'
550'
220'
200'
180'
250'
210'
220'
180'
250'
180'
500'
800'
443'x30' TOP SOIL
TOTAL SHORT-TERM DISTURBANCE AREA = 10.53 ACRES (WELL PAD AND TOPSOIL RESERVE)
30' DISTANCE BETWEEN WELLS
30' DISTANCE BETWEEN WELLS
30' DISTANCE BETWEEN WELLS
701H 702H 501H 19H
30H 29H 25H 24H 22H 21H
31H 26H 23H 18H 16H
A 2895.8'
B 2889.7'
C 2892.9'
D 2893.2'
E 2892.2'
L1 L2 L3 L4 L5
71'
TIE-2
PROPOSED SOIL EROSION CONTROL AREA
2" IRON PIPE W/GLO CAP FND FOR SW COR. OF SEC. 28

NAD 83		
A	E:(X)645700.36 N:(Y)371547.06	LAT:32.02101586 LON:-103.99659002
B	E:(X)646250.35 N:(Y)371547.06	LAT:32.02101113 LON:-103.99481541
C	E:(X)646250.34 N:(Y)370797.01	LAT:32.01894929 LON:-103.99482301
D	E:(X)646200.44 N:(Y)370747.11	LAT:32.01881255 LON:-103.99498454
E	E:(X)645700.31 N:(Y)370746.99	LAT:32.01881650 LON:-103.99659821

NAD 27		
A	E:(X)604514.68 N:(Y)371489.60	LAT:32.02089071 LON:-103.99610780
B	E:(X)605064.66 N:(Y)371489.60	LAT:32.02088598 LON:-103.99433326
C	E:(X)605064.64 N:(Y)370739.57	LAT:32.01882412 LON:-103.99434094
D	E:(X)605014.73 N:(Y)370689.67	LAT:32.01868738 LON:-103.99450246
E	E:(X)604514.61 N:(Y)370689.54	LAT:32.01869133 LON:-103.99611607

TIE TABLE

TIE	BEARING	DISTANCE
TIE-1	N 81°26'26" W	411.36'
TIE-2	S 05°57'07" W	4,472.26'

PROPOSED PAD

LINE	BEARING	DISTANCE
L1	S 90°00'00" E	549.99'
L2	S 00°00'02" W	750.05'
L3	S 45°00'14" W	70.57'
L4	S 89°59'08" W	500.12'
L5	N 00°00'11" E	800.07'

NOTE:
THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM STATE OF NEW MEXICO OIL CONSERVATION DIVISION FORM C-102 INCLUDED IN THIS SUBMITTAL.

REV.	DATE	BY
11	11/02/2023	SAC

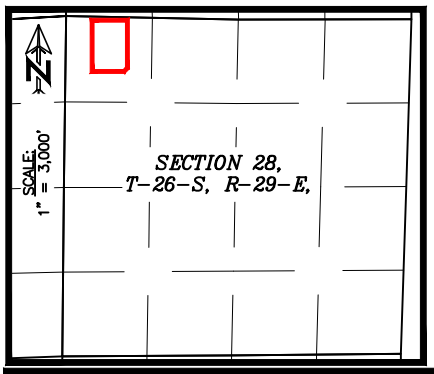
DECEMBER 1, 2023

LLOYD P. SHORT NEW MEXICO 21653 PROFESSIONAL SURVEYOR

I, LLOYD P. SHORT, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21653, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FUTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

SHEET 2 OF 5

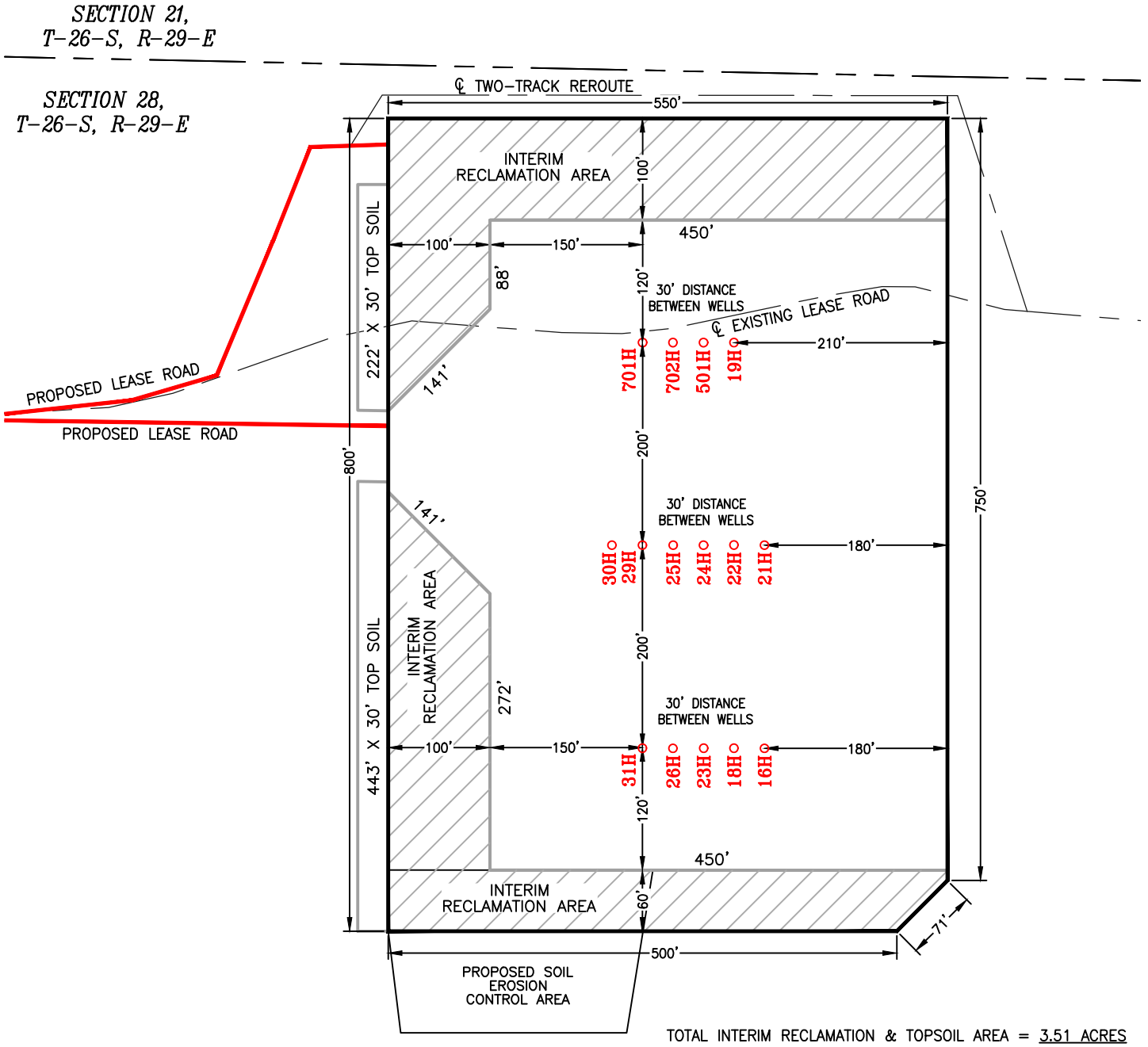
PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3965_031



WELL PAD LOCATION PLAT

HEGEMON 21 FED
SEC. 28 TWP. 26-S RGE. 29-E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: ROSS RANCH, N.M.

75' 0' 75' 150'
SCALE: 1" = 150'



TOTAL INTERIM RECLAMATION & TOPSOIL AREA = 3.51 ACRES
TOTAL LONG-TERM DISTURBANCE AREA = 7.02 ACRES

REV.	DATE	BY
11	11/02/2023	SAC

NOTE:
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I, LLOYD P. SHORT, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21653, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FUTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

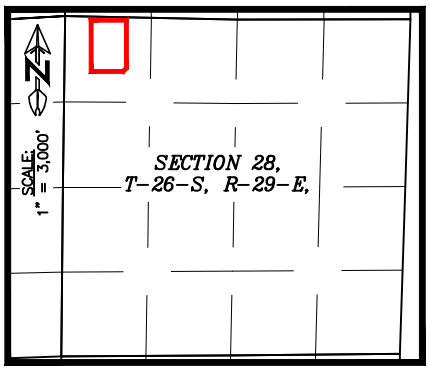
LLOYD P. SHORT
NEW MEXICO
21653
PROFESSIONAL SURVEYOR

DECEMBER 1, 2023

Lloyd P. Short

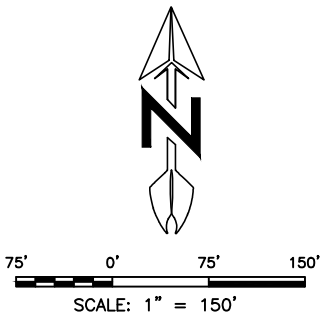
SHEET 3 OF 5

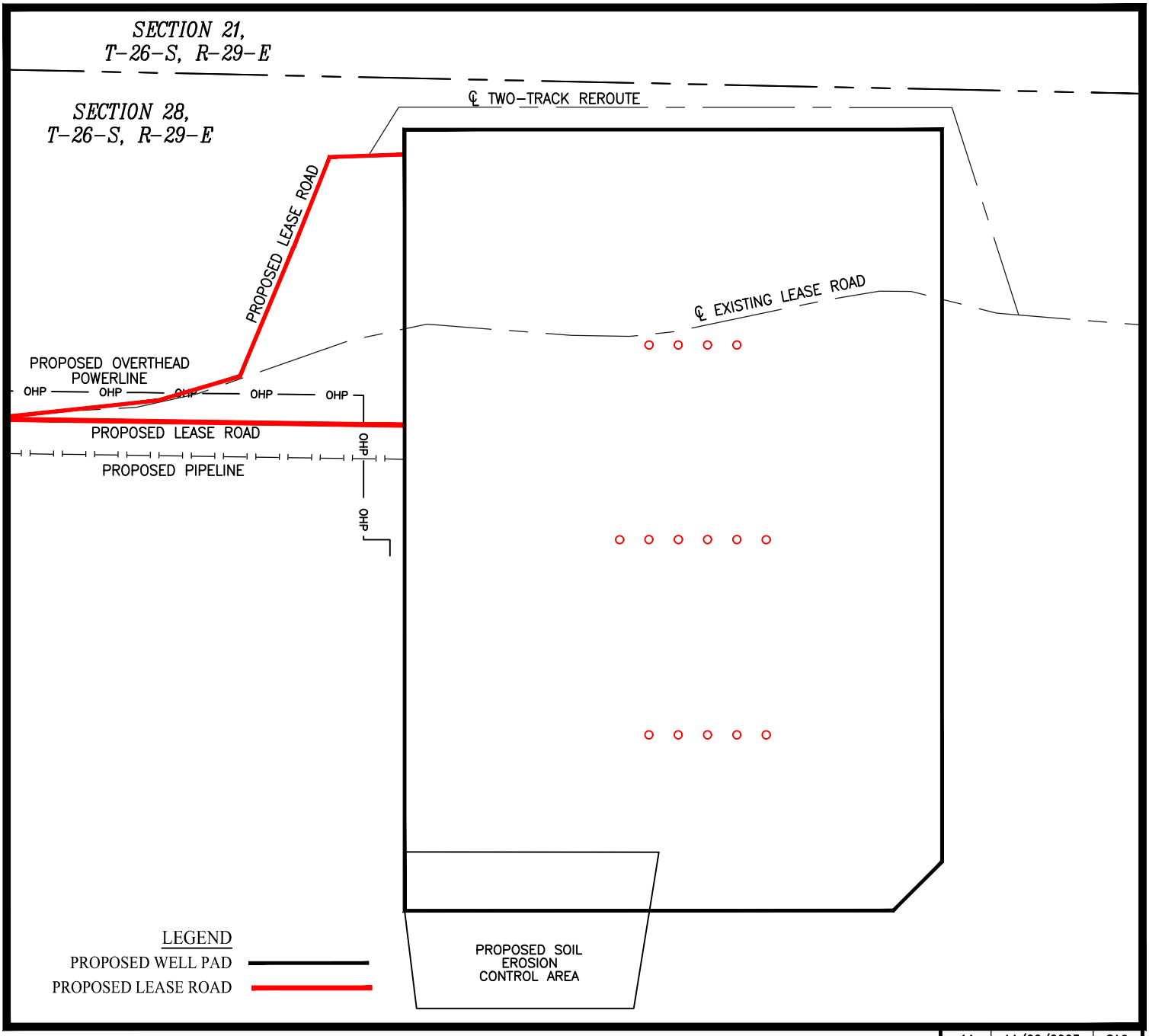
PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3965_031



RIG LAYOUT

HEGEMON 21 FED
SEC. 28 TWP. 26-S RGE. 29-E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: ROSS RANCH, N.M.





REV.	DATE	BY
11	11/02/2023	SAC

NOTE:
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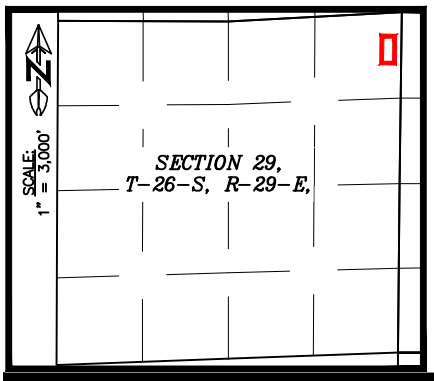
SHEET 4 OF 5

PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3965_031



FACILITY LAYOUT

HEGEMON 21 FED
SEC. 29 TWP. 26-S RGE. 29-E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: ROSS RANCH, N.M.

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

PROPOSED OVERTHEAD POWERLINE
PROPOSED LEASE ROAD
℄ EXISTING LEASE ROAD
200'
PROPOSED PIPELINE
(512' TO WELL PAD)
PROPOSED OVERTHEAD POWERLINE
420'
420'
200'
FLARE STACK
50'
50'
PROPOSED PIPELINE
(193' TO FLARE STACK)
SECTION 29, T-26-S, R-29-E,
SECTION 28, T-26-S, R-29-E,

LEGEND
PROPOSED WELL PAD
PROPOSED LEASE ROAD

11	11/02/2023	SAC
REV.	DATE	BY

NOTE:
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SHEET 5 OF 5

PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3965_031

Cement Variance Request

Marathon Oil Permian requests to pump a two stage cement job on the 9 5/8" intermediate casing in the event the primary stage is not circulated to surface.

If cement is not circulated to surface on the primary cement job, the second stage will be performed as a bradenhead squeeze until cement reaches surface.

Following the first stage, we will ensure the cement job was cemented properly and the well is static with floats holding. We will also ensure there is no pressure on the csg annulus as with all other casing strings where batch drilling operations occur. Before moving off the rig the TA cap will be installed as per standard batch drilling ops.

If there are indications that there are gaps in cement coverage after the bradenhead squeeze, a CBL will be run to identify where the gaps are. After the bradenhead squeeze, the lines will NOT be washed into the annulus. The annulus will be topped off approximately an hour after the bradenhead job with cement and verified circulated to surface. If confidence is lacking on the TOC, an echo meter or CBL will be run to verify TOC. BLM Engineer will be notified of such issues.

Marathon Oil Corporation

Project: Eddy County, NM (NAD27-NME)
Site: Hegemon
Well: Hegemon BS Federal Com 501H
Wellbore: OH
Design: Plan 2 02-05-24
Rig: Cactus 171

PHOENIX TECHNOLOGY SERVICES

T G M

Azimuths to Grid North
True North: -0.18°
Magnetic North: 6.19°

Magnetic Field
Strength: 47247.0nT
Dip Angle: 59.46°
Date: 3/18/2024
Model: MVHD

KB @ 2919.60usft (Cactus 171)
Ground Level: 2896.00

WELL DETAILS

2896.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	371269.68	604824.62	32° 1' 13.020566 N	103° 59' 42.395942 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00		
2	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.000	0.00		KOP, Begin 2.00°/100' Build
3	1925.21	12.50	63.27	1920.25	30.56	60.69	2.00	63.271	29.16		Hold 12.50° Inc at 63.27° Azm
4	4413.72	12.50	63.27	4349.75	272.89	541.91	0.00	0.000	260.33		Begin 2.00°/100' Drop
5	5038.93	0.00	358.68	4970.00	303.45	602.60	2.00	180.000	289.49		Begin Vertical Hold
6	7902.73	0.00	0.00	7833.80	303.45	602.60	0.00	0.000	289.49		KOP, Begin 8.00°/100' Build
7	9027.73	90.00	358.68	8550.00	1019.46	586.15	8.00	358.684	1005.69		LP, Hold 90.00° Inc at 358.68° Azm
8	13404.58	90.00	358.68	8550.00	5395.16	485.65	0.00	0.000	5382.54	LTP/BHLv2 - HBS FC 501H	TD at 13404.58

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP/PPP1v2 - HBS FC 501H	8550.00	353.44	601.45	371623.12	605426.07	32° 1' 16.499711 N	103° 59' 35.396902 W
LTP/BHLv2 - HBS FC 501H	8550.00	5395.16	485.65	376664.84	605310.27	32° 2' 6.398793 N	103° 59' 36.557767 W
PPP2v2 - HBS FC 501H	8550.00	1093.97	584.45	372363.65	605409.07	32° 1' 23.828916 N	103° 59' 35.567292 W
PPP3v2 - HBS FC 501H	8550.00	2247.78	557.95	373517.46	605382.57	32° 1' 35.248450 N	103° 59' 35.832930 W

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

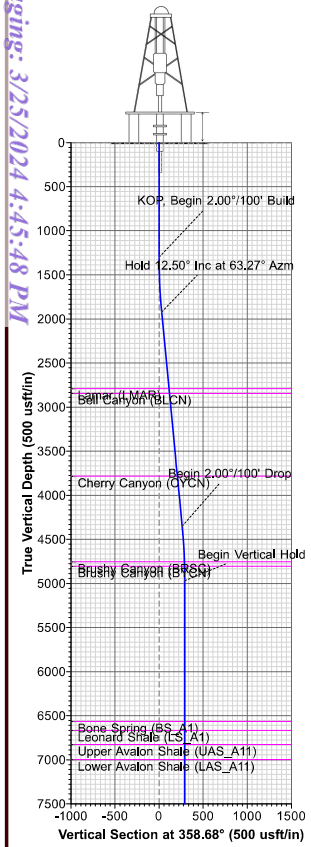
Local Origin: Well Hegemon BS Federal Com 501H, Grid North

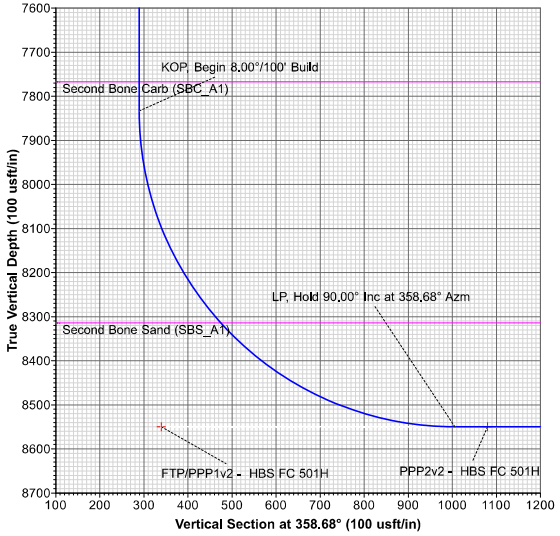
Latitude: 32° 1' 13.020566 N
Longitude: 103° 59' 42.395942 W

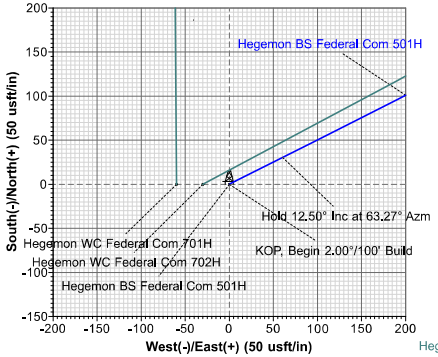
Grid East: 604824.62
Grid North: 371269.68
Scale Factor: 1.000

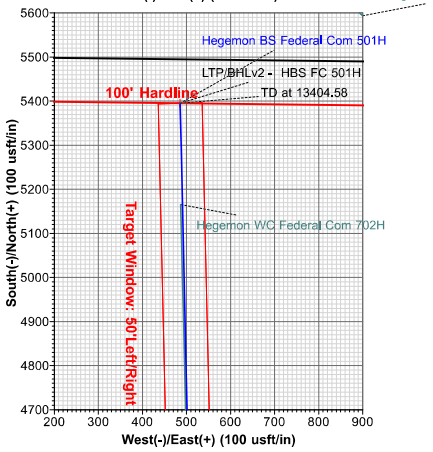
Geomagnetic Model: MVHD
Sample Date: 18-Mar-24
Magnetic Declination: 6.374°
Dip Angle from Horizontal: 59.464°
Magnetic Field Strength: 47246.96065912nT

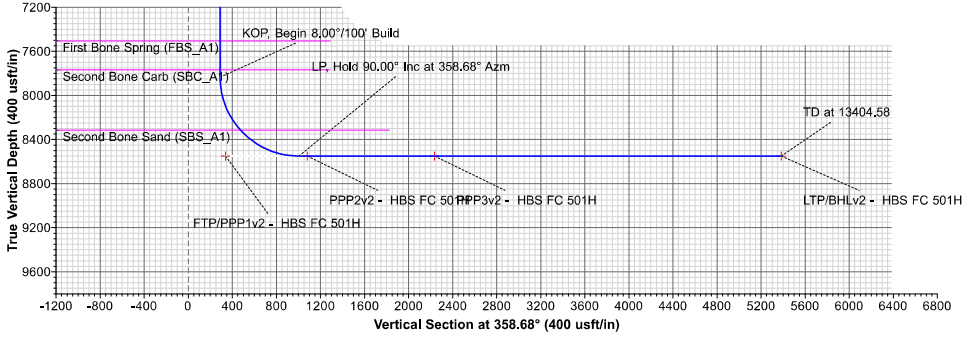
To convert a Magnetic Direction to a Grid Direction, Add 6.194°
To convert a Magnetic Direction to a True Direction, Add 6.374° East
To convert a True Direction to a Grid Direction, Subtract 0.179°

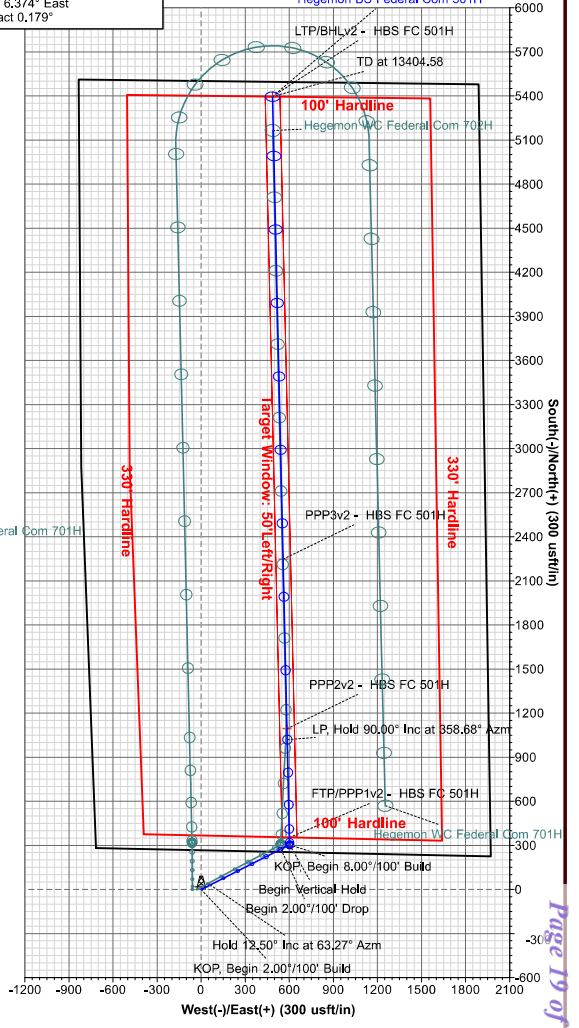












Date: 14:47, February 05 2024

PHOENIX
TECHNOLOGY SERVICES

Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)
Hegemon
Hegemon BS Federal Com 501H

OH

Plan: Plan 2 02-05-24

Standard Planning Report

05 February, 2024

Marathon Oil Corporation

PHOENIX TECHNOLOGY SERVICES

Phoenix
Planning Report

Marathon Oil Corporation

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well Hegemon BS Federal Com 501H
Company:	Marathon Oil Permian LLC	**TVD Reference:**	RKB @ 2919.60usft (Cactus 171)
Project:	Eddy County, NM (NAD27-NME)	**MD Reference:**	RKB @ 2919.60usft (Cactus 171)
Site:	Hegemon	**North Reference:**	Grid
Well:	Hegemon BS Federal Com 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 02-05-24		

Project Eddy County, NM (NAD27-NME)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Hegemon

Site Position:		**Northing:**	371,269.61 usft	**Latitude:**	32° 1' 13.021727 N
From:	Map	**Easting:**	604,764.75 usft	**Longitude:**	103° 59' 43.091362 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Hegemon BS Federal Com 501H

Well Position	**+N/-S**	0.00 usft	**Northing:**	371,269.68 usft	**Latitude:**	32° 1' 13.020566 N
	+E/-W	0.00 usft	**Easting:**	604,824.62 usft	**Longitude:**	103° 59' 42.395942 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,896.00 usft
Grid Convergence:		0.179 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	2024-03-18	6.374	59.464	47,246.96065912

Design Plan 2 02-05-24

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	358.68

Plan Survey Tool Program **Date** 2024-02-05

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,404.58	Plan 2 02-05-24 (OH)	MWD+IFR1+MS OWSG Rev. 2 MWD + IFR1	

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	0.000	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,925.21	12.50	63.27	1,920.25	30.56	60.69	2.00	2.00	0.00	63.271	
4,413.72	12.50	63.27	4,349.75	272.89	541.91	0.00	0.00	0.00	0.000	
5,038.93	0.00	358.68	4,970.00	303.45	602.60	2.00	-2.00	0.00	180.000	
7,902.73	0.00	0.00	7,833.80	303.45	602.60	0.00	0.00	0.00	0.000	
9,027.73	90.00	358.68	8,550.00	1,019.46	586.15	8.00	8.00	0.00	358.684	
13,404.58	90.00	358.68	8,550.00	5,395.16	485.65	0.00	0.00	0.00	0.000	LTP/BHLv2 - HBS

PHOENIX TECHNOLOGY SERVICES

Phoenix
Planning Report

Marathon Oil Corporation

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well Hegemon BS Federal Com 501H
Company:	Marathon Oil Permian LLC	**TVD Reference:**	RKB @ 2919.60usft (Cactus 171)
Project:	Eddy County, NM (NAD27-NME)	**MD Reference:**	RKB @ 2919.60usft (Cactus 171)
Site:	Hegemon	**North Reference:**	Grid
Well:	Hegemon BS Federal Com 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 02-05-24		

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
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100' Build									
1,400.00	2.00	63.27	1,399.98	0.78	1.56	0.75	2.00	2.00	0.00
1,500.00	4.00	63.27	1,499.84	3.14	6.23	2.99	2.00	2.00	0.00
1,600.00	6.00	63.27	1,599.45	7.06	14.02	6.73	2.00	2.00	0.00
1,700.00	8.00	63.27	1,698.70	12.54	24.90	11.96	2.00	2.00	0.00
1,800.00	10.00	63.27	1,797.47	19.57	38.87	18.67	2.00	2.00	0.00
1,900.00	12.00	63.27	1,895.62	28.16	55.91	26.86	2.00	2.00	0.00
1,925.21	12.50	63.27	1,920.25	30.56	60.69	29.16	2.00	2.00	0.00
Hold 12.50° Inc at 63.27° Azm									
2,000.00	12.50	63.27	1,993.27	37.85	75.15	36.10	0.00	0.00	0.00
2,100.00	12.50	63.27	2,090.90	47.58	94.49	45.39	0.00	0.00	0.00
2,200.00	12.50	63.27	2,188.53	57.32	113.83	54.68	0.00	0.00	0.00
2,300.00	12.50	63.27	2,286.16	67.06	133.17	63.97	0.00	0.00	0.00
2,400.00	12.50	63.27	2,383.79	76.80	152.50	73.26	0.00	0.00	0.00
2,500.00	12.50	63.27	2,481.42	86.54	171.84	82.55	0.00	0.00	0.00
2,600.00	12.50	63.27	2,579.04	96.27	191.18	91.84	0.00	0.00	0.00
2,700.00	12.50	63.27	2,676.67	106.01	210.52	101.13	0.00	0.00	0.00
2,800.00	12.50	63.27	2,774.30	115.75	229.85	110.42	0.00	0.00	0.00
2,900.00	12.50	63.27	2,871.93	125.49	249.19	119.71	0.00	0.00	0.00
3,000.00	12.50	63.27	2,969.56	135.22	268.53	129.00	0.00	0.00	0.00
3,100.00	12.50	63.27	3,067.18	144.96	287.87	138.29	0.00	0.00	0.00
3,200.00	12.50	63.27	3,164.81	154.70	307.20	147.58	0.00	0.00	0.00
3,300.00	12.50	63.27	3,262.44	164.44	326.54	156.87	0.00	0.00	0.00
3,400.00	12.50	63.27	3,360.07	174.18	345.88	166.16	0.00	0.00	0.00
3,500.00	12.50	63.27	3,457.70	183.91	365.22	175.45	0.00	0.00	0.00
3,600.00	12.50	63.27	3,555.32	193.65	384.55	184.74	0.00	0.00	0.00
3,700.00	12.50	63.27	3,652.95	203.39	403.89	194.03	0.00	0.00	0.00
3,800.00	12.50	63.27	3,750.58	213.13	423.23	203.32	0.00	0.00	0.00
3,900.00	12.50	63.27	3,848.21	222.87	442.57	212.61	0.00	0.00	0.00
4,000.00	12.50	63.27	3,945.84	232.60	461.90	221.90	0.00	0.00	0.00
4,100.00	12.50	63.27	4,043.46	242.34	481.24	231.19	0.00	0.00	0.00
4,200.00	12.50	63.27	4,141.09	252.08	500.58	240.48	0.00	0.00	0.00
4,300.00	12.50	63.27	4,238.72	261.82	519.92	249.77	0.00	0.00	0.00
4,400.00	12.50	63.27	4,336.35	271.55	539.25	259.06	0.00	0.00	0.00
4,413.72	12.50	63.27	4,349.75	272.89	541.91	260.33	0.00	0.00	0.00
Begin 2.00°/100' Drop									
4,500.00	10.78	63.27	4,434.24	280.72	557.46	267.80	2.00	-2.00	0.00
4,600.00	8.78	63.27	4,532.79	288.36	572.62	275.09	2.00	-2.00	0.00
4,700.00	6.78	63.27	4,631.86	294.45	584.71	280.90	2.00	-2.00	0.00
4,800.00	4.78	63.27	4,731.35	298.97	593.70	285.22	2.00	-2.00	0.00
4,900.00	2.78	63.27	4,831.13	301.94	599.59	288.05	2.00	-2.00	0.00
5,000.00	0.78	63.27	4,931.07	303.33	602.36	289.38	2.00	-2.00	0.00
5,038.93	0.00	358.68	4,970.00	303.45	602.60	289.49	2.00	-2.00	0.00
Begin Vertical Hold									
7,902.73	0.00	0.00	7,833.80	303.45	602.60	289.49	0.00	0.00	0.00
KOP, Begin 8.00°/100' Build									
8,000.00	7.78	358.68	7,930.77	310.05	602.45	296.09	8.00	8.00	0.00
8,100.00	15.78	358.68	8,028.59	330.44	601.98	316.49	8.00	8.00	0.00
8,200.00	23.78	358.68	8,122.61	364.25	601.20	350.30	8.00	8.00	0.00
8,300.00	31.78	358.68	8,211.01	410.81	600.13	396.88	8.00	8.00	0.00
8,400.00	39.78	358.68	8,292.07	469.22	598.79	455.30	8.00	8.00	0.00

PHOENIX TECHNOLOGY SERVICES

Phoenix
Planning Report

Marathon Oil Corporation

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well Hegemon BS Federal Com 501H
Company:	Marathon Oil Permian LLC	**TVD Reference:**	RKB @ 2919.60usft (Cactus 171)
Project:	Eddy County, NM (NAD27-NME)	**MD Reference:**	RKB @ 2919.60usft (Cactus 171)
Site:	Hegemon	**North Reference:**	Grid
Well:	Hegemon BS Federal Com 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 02-05-24		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.00	47.78	358.68	8,364.21	538.33	597.20	524.43	8.00	8.00	0.00
8,600.00	55.78	358.68	8,426.03	616.81	595.40	602.93	8.00	8.00	0.00
8,700.00	63.78	358.68	8,476.31	703.13	593.42	689.28	8.00	8.00	0.00
8,800.00	71.78	358.68	8,514.10	795.61	591.29	781.78	8.00	8.00	0.00
8,900.00	79.78	358.68	8,538.64	892.44	589.07	878.63	8.00	8.00	0.00
9,000.00	87.78	358.68	8,549.46	991.74	586.79	977.96	8.00	8.00	0.00
9,027.73	90.00	358.68	8,550.00	1,019.46	586.15	1,005.69	8.00	8.00	0.00
LP, Hold 90.00° Inc at 358.68° Azm									
9,100.00	90.00	358.68	8,550.00	1,091.71	584.49	1,077.96	0.00	0.00	0.00
9,200.00	90.00	358.68	8,550.00	1,191.68	582.20	1,177.96	0.00	0.00	0.00
9,300.00	90.00	358.68	8,550.00	1,291.66	579.90	1,277.96	0.00	0.00	0.00
9,400.00	90.00	358.68	8,550.00	1,391.63	577.60	1,377.96	0.00	0.00	0.00
9,500.00	90.00	358.68	8,550.00	1,491.61	575.31	1,477.96	0.00	0.00	0.00
9,600.00	90.00	358.68	8,550.00	1,591.58	573.01	1,577.96	0.00	0.00	0.00
9,700.00	90.00	358.68	8,550.00	1,691.55	570.72	1,677.96	0.00	0.00	0.00
9,800.00	90.00	358.68	8,550.00	1,791.53	568.42	1,777.96	0.00	0.00	0.00
9,900.00	90.00	358.68	8,550.00	1,891.50	566.12	1,877.96	0.00	0.00	0.00
10,000.00	90.00	358.68	8,550.00	1,991.47	563.83	1,977.96	0.00	0.00	0.00
10,100.00	90.00	358.68	8,550.00	2,091.45	561.53	2,077.96	0.00	0.00	0.00
10,200.00	90.00	358.68	8,550.00	2,191.42	559.23	2,177.96	0.00	0.00	0.00
10,300.00	90.00	358.68	8,550.00	2,291.39	556.94	2,277.96	0.00	0.00	0.00
10,400.00	90.00	358.68	8,550.00	2,391.37	554.64	2,377.96	0.00	0.00	0.00
10,500.00	90.00	358.68	8,550.00	2,491.34	552.35	2,477.96	0.00	0.00	0.00
10,600.00	90.00	358.68	8,550.00	2,591.32	550.05	2,577.96	0.00	0.00	0.00
10,700.00	90.00	358.68	8,550.00	2,691.29	547.75	2,677.96	0.00	0.00	0.00
10,800.00	90.00	358.68	8,550.00	2,791.26	545.46	2,777.96	0.00	0.00	0.00
10,900.00	90.00	358.68	8,550.00	2,891.24	543.16	2,877.96	0.00	0.00	0.00
11,000.00	90.00	358.68	8,550.00	2,991.21	540.86	2,977.96	0.00	0.00	0.00
11,100.00	90.00	358.68	8,550.00	3,091.18	538.57	3,077.96	0.00	0.00	0.00
11,200.00	90.00	358.68	8,550.00	3,191.16	536.27	3,177.96	0.00	0.00	0.00
11,300.00	90.00	358.68	8,550.00	3,291.13	533.98	3,277.96	0.00	0.00	0.00
11,400.00	90.00	358.68	8,550.00	3,391.10	531.68	3,377.96	0.00	0.00	0.00
11,500.00	90.00	358.68	8,550.00	3,491.08	529.38	3,477.96	0.00	0.00	0.00
11,600.00	90.00	358.68	8,550.00	3,591.05	527.09	3,577.96	0.00	0.00	0.00
11,700.00	90.00	358.68	8,550.00	3,691.03	524.79	3,677.96	0.00	0.00	0.00
11,800.00	90.00	358.68	8,550.00	3,791.00	522.49	3,777.96	0.00	0.00	0.00
11,900.00	90.00	358.68	8,550.00	3,890.97	520.20	3,877.96	0.00	0.00	0.00
12,000.00	90.00	358.68	8,550.00	3,990.95	517.90	3,977.96	0.00	0.00	0.00
12,100.00	90.00	358.68	8,550.00	4,090.92	515.61	4,077.96	0.00	0.00	0.00
12,200.00	90.00	358.68	8,550.00	4,190.89	513.31	4,177.96	0.00	0.00	0.00
12,300.00	90.00	358.68	8,550.00	4,290.87	511.01	4,277.96	0.00	0.00	0.00
12,400.00	90.00	358.68	8,550.00	4,390.84	508.72	4,377.96	0.00	0.00	0.00
12,500.00	90.00	358.68	8,550.00	4,490.81	506.42	4,477.96	0.00	0.00	0.00
12,600.00	90.00	358.68	8,550.00	4,590.79	504.13	4,577.96	0.00	0.00	0.00
12,700.00	90.00	358.68	8,550.00	4,690.76	501.83	4,677.96	0.00	0.00	0.00
12,800.00	90.00	358.68	8,550.00	4,790.74	499.53	4,777.96	0.00	0.00	0.00
12,900.00	90.00	358.68	8,550.00	4,890.71	497.24	4,877.96	0.00	0.00	0.00
13,000.00	90.00	358.68	8,550.00	4,990.68	494.94	4,977.96	0.00	0.00	0.00
13,100.00	90.00	358.68	8,550.00	5,090.66	492.64	5,077.96	0.00	0.00	0.00
13,200.00	90.00	358.68	8,550.00	5,190.63	490.35	5,177.96	0.00	0.00	0.00
13,300.00	90.00	358.68	8,550.00	5,290.60	488.05	5,277.96	0.00	0.00	0.00
13,400.00	90.00	358.68	8,550.00	5,390.58	485.76	5,377.96	0.00	0.00	0.00
13,404.58	90.00	358.68	8,550.00	5,395.16	485.65	5,382.54	0.00	0.00	0.00
TD at 13404.58									

PHOENIX TECHNOLOGY SERVICES

Phoenix
Planning Report

Marathon Oil Corporation

Database:	USAEDMDB	**Local Co-ordinate Reference:**	Well Hegemon BS Federal Com 501H
Company:	Marathon Oil Permian LLC	**TVD Reference:**	RKB @ 2919.60usft (Cactus 171)
Project:	Eddy County, NM (NAD27-NME)	**MD Reference:**	RKB @ 2919.60usft (Cactus 171)
Site:	Hegemon	**North Reference:**	Grid
Well:	Hegemon BS Federal Com 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 02-05-24		

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)

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
LTP/BHLv2 - HBS FC - plan hits target center - Rectangle (sides W100.00 H5,043.05 D0.00)	0.00	358.68	8,550.00	5,395.16	485.65	376,664.84	605,310.27	32° 2' 6.398793 N	3° 59' 36.557767 W
PPP2v2 - HBS FC 5C - plan misses target center by 0.01usft at 9102.26usft MD (8550.00 TVD, 1093.97 N, 584.44 E) - Point	0.00	0.00	8,550.00	1,093.97	584.45	372,363.65	605,409.07	32° 1' 23.828916 N	3° 59' 35.567292 W
FTP/PPP1v2 - HBS F - plan misses target center by 262.15usft at 8500.00usft MD (8364.21 TVD, 538.33 N, 597.20 E) - Point	0.00	0.00	8,550.00	353.44	601.45	371,623.12	605,426.07	32° 1' 16.499711 N	3° 59' 35.396903 W
PPP3v2 - HBS FC 5C - plan misses target center by 0.01usft at 10256.37usft MD (8550.00 TVD, 2247.78 N, 557.94 E) - Point	0.00	0.00	8,550.00	2,247.78	557.95	373,517.46	605,382.57	32° 1' 35.248450 N	3° 59' 35.832930 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,815.67	2,789.60	Lamar (LMAR)		0.000	358.68
2,872.01	2,844.60	Bell Canyon (BLCN)		0.000	358.68
3,835.87	3,785.60	Cherry Canyon (CYCN)		0.000	358.68
4,824.33	4,755.60	Brushy Canyon (BRSC)		0.000	358.68
4,874.44	4,805.60	Brushy Canyon (BYCN)		0.000	358.68
6,635.53	6,566.60	Bone Spring (BS_A1)		0.000	358.68
6,736.53	6,667.60	Leonard Shale (LS_A1)		0.000	358.68
6,896.53	6,827.60	Upper Avalon Shale (UAS_A11)		0.000	358.68
7,068.53	6,999.60	Lower Avalon Shale (LAS_A11)		0.000	358.68
7,573.53	7,504.60	First Bone Spring (FBS_A1)		0.000	358.68
7,836.53	7,767.60	Second Bone Carb (SBC_A1)		0.000	358.68
8,429.84	8,314.60	Second Bone Sand (SBS_A1)		0.000	358.68

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,300.00	1,300.00	0.00	0.00	KOP, Begin 2.00°/100' Build
1,925.21	1,920.25	30.56	60.69	Hold 12.50° Inc at 63.27° Azm
4,413.72	4,349.75	272.89	541.91	Begin 2.00°/100' Drop
5,038.93	4,970.00	303.45	602.60	Begin Vertical Hold
7,902.73	7,833.80	303.45	602.60	KOP, Begin 8.00°/100' Build
9,027.73	8,550.00	1,019.46	586.15	LP, Hold 90.00° Inc at 358.68° Azm
13,404.58	8,550.00	5,395.16	485.65	TD at 13404.58

MARATHON OIL PERMIAN, LLC.

DRILLING AND OPERATIONS PLAN

WELL NAME & NUMBER: **HEGEMON BS FEDERAL COM 501H**

LOCATION: SECTION **28** TOWNSHIP **26S** RANGE **29E**

EDDY COUNTY, **NEW MEXICO**

Section 1: GEOLOGICAL FORMATIONS

Name of Surface Formation: Permian

Elevation: 2896 *feet*

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Rustler	456	483	2440	Anhydrite	Brine	No
Salado	822	849	2074	Salt/Anhydrite	Brine	No
Castile	1069	1096	1827	Salt/Anhydrite	Brine	No
Base of Salt (BX)	2626	2653	270	Salt/Anhydrite	Brine	No
Lamar	2814	2841	82	Sandstone/Shale	None	No
Bell Canyon	2856	2883	40	Sandstone	Oil	No
Cherry Canyon	3934	3961	-1038	Sandstone	Oil	No
Brushy Canyon	4975	5002	-2079	Sandstone	Oil	No
Bone Spring Lime	6589	6616	-3693	Limestone	None	No
Upper Avalon Shale	6874	6901	-3978	Shale	Oil	Yes
1st Bone Spring Sand	7488	7515	-4592	Sandstone	Oil	Yes
2nd Bone Spring Carbonate	7771	7798	-4875	Limestone/Shale	None	No
2nd Bone Spring Sand	8034	8061	-5138	Sandstone	Oil	Yes
3rd Bone Spring Carbonate	8669	8696	-5773	Limestone	Oil	No
3rd Bone Spring Sand	9365	9392	-6469	Sandstone	Oil	Yes
Wolfcamp	9716	9743	-6820	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp A	9854	9881	-6958	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp B	10191	10218	-7295	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp C	10504	10531	-7608	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp D	11028	11055	-8132	Sandstone/Shale/Carbonates	Natural Gas / Oil	No

Section 2: BLOWOUT PREVENTER TESTING PROCEDURE

Pressure Rating (PSI): 10M

Rating Depth: 10000

Equipment: 13 5/8 BOP Annular (5,000 psi WP) and BOP Stack (10,000 psi WP) will be installed and tested before drilling all holes.

Requesting Variance? Yes

Variance Request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: BOP/BOPE will be tested to 250 psi low and a high of 100% WP for the Annular and 5,000psi for the BOP Stacking before drilling the intermediate hole, 10,000psi for the BOP Stacking before drilling the production hole. Testing will be conducted by an independent service company per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the Equipment Description above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock, full opening safety valve / inside BOP and choke lines and choke manifold. See attached schematics.

Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. See attached schematic.

Section 3: CASING PROGRAM

String Type	Hole Size	Casing Size	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Weight (lbs/ft)	Grade	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	553	0	526	2896	2370	54.5	J55	BTC	5.22	1.81	BUOY	4.52	BUOY	4.52
Intermediate	12.25	9.625	0	7802	0	7733	2896	-4837	40	P110HC	BTC	1.20	1.42	BUOY	2.44	BUOY	2.44
Production	8.75	5.5	0	13404	0	8550	2896	-5654	23	P110HC	TLW	2.53	1.26	BUOY	2.22	BUOY	2.22
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h												Safety Factors will Meet or Exceed					

Casing Condition: New
Casing Standard: API
Tapered String? No

	Yes or No
Is casing new? If used, attach certification as required in Onshore Order #1.	Yes
Does casing meet API specifications? If no, attach casing specification sheet.	Yes
Is premium or uncommon casing planned? If yes attach casing specification sheet.	No
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Yes
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Yes
Is well located within Capitan Reef?	No
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is proposed well within the designated four string boundary?	
Is well located in R-111-P and SOPA?	No
If yes, are the first three strings cemented to surface?	
Is the second string set 100' to 600' below the base of salt?	
Is well located in SOPA but not in R-111-P?	No
If yes, are the first 2 strings cemented to surface and third string cement tied back 500' into previous casing?	
Is well located in high Cave/Karst?	No
If yes, are there two strings cemented to surface?	
If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	No
If yes, are there three strings cemented to surface?	

Section 4: CEMENT PROGRAM

String Type	Lead/Tail	Top MD	Bottom MD	Quantity (sks)	Yield (ft^3/sks)	Density (ppg)	Slurry Volume (ft^3)	Excess (%)	Cement Type	Additives
Surface	Lead	0	403	188	2.12	12.5	399	25	Class C	Extender,Accelerator,LCM
Surface	Tail	403	553	99	1.32	14.8	130	25	Class C	Accelerator
Intermediate	Lead	0	7302	1327	2.18	12.4	2893	25	Class C	Extender,Accelerator,LCM
Intermediate	Tail	7302	7802	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	7502	13404	1150	1.68	13	1932	25	Class H	Retarder, Extender, Fluid Loss, Suspension Agent

Stage tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Stage tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Pilot Hole? No
Pilot Hole Depth: N/A
KOP Depth: N/A
Plugging Procedure for Pilot Hole: N/A

Plug Top	Plug Bottom	Excess (%)	Quantity (sx)	Density (ppg)	Yield (ft3/sks)	Water gal/sk	Slurry Description and Cement Type

Section 5: CIRCULATING MEDIUM

Mud System Type: Closed
Will an air or gas system be used? No

Describe what will be on location to control well or mitigate other conditions:
The necessary mud products for additional weight and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized:
Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

Circulating Medium Table:

Top Depth	Bottom Depth	Mud Type	Min. Weight (ppg)	Max Weight (ppg)
0	553	Water Based Mud	8.4	8.8
553	7802	Brine or Oil Based Mud	9.2	10.2
7802	13404	Oil Based Mud	10.5	12.5

Section 6: TESTING, LOGGING, CORING

List of production tests including testing procedures, equipment and safety measures:
GR from TD to surface (horizontal well - vertical portion of hole)

List of open and cased hole logs run in the well:
GR while drilling from Intermediate casing shoe to TD.

Coring operation description for the well:
None

Section 7: ANTICIPATED PRESSURE

Anticipated Bottom Hole Pressure: **5558** PSI
Anticipated Bottom Hole Temperature: **195** ˚F
Anticipated Abnormal Pressure? **No**
Anticipated Abnormal Temperature? **No**

Potential Hazards:
H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. See attached H2S Contingency Plan.

Section 8: OTHER INFORMATION

Auxiliary Well Control and Monitoring Equipment:
A Kelly cock will be in the drill string at all times. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.

Anticipated Starting Date and Duration of Operations:
Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

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Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102 Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-53936	97801	WILDCAT G-04 S262908A; BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
334191	HEGEMON BS FEDERAL COM	501H

[7] OGRID No.	[8] Operator Name	[9] Elevation
372098	MARATHON OIL PERMIAN LLC	2896'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	26S	29E		266'	NORTH	720'	WEST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	26S	29E		100'	NORTH	1320'	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.00			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]

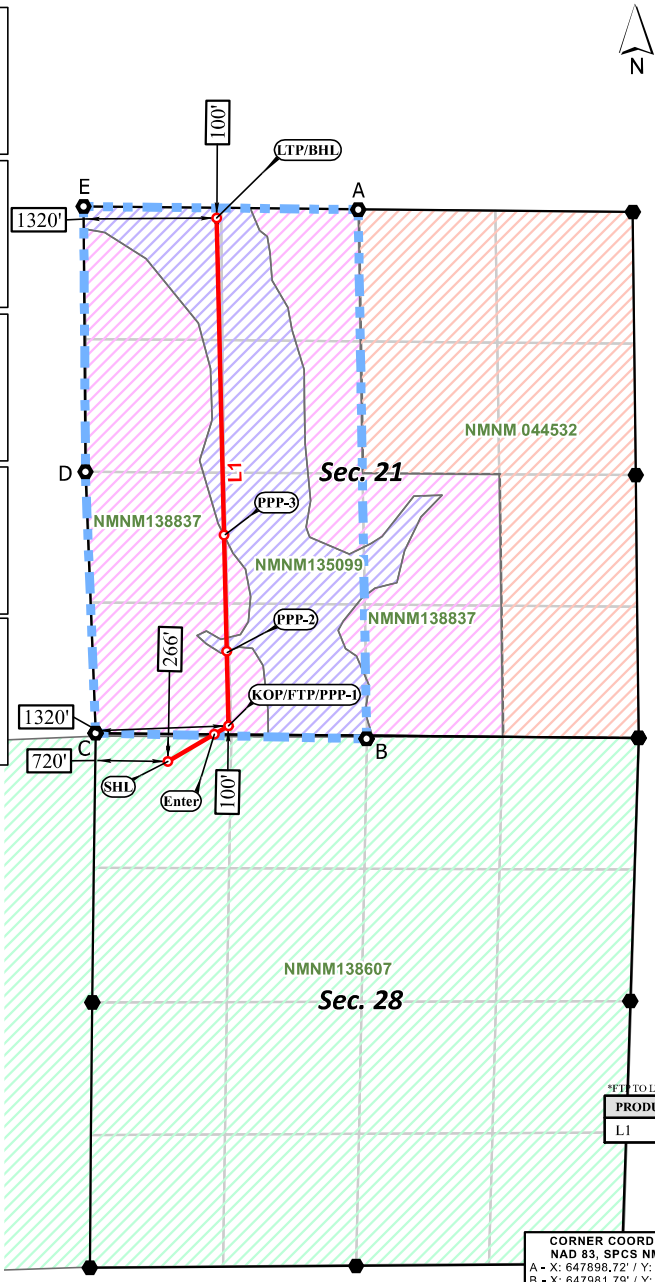
LAST TAKE/BOTTOM HOLE
FNL 100' FWL 1320', SECTION 21
NAD 83, SPCS NM EAST
X:646495.84' / Y:376722.41'
LAT:32.03523576 / LON:-103.99397086
NAD 27, SPCS NM EAST
X:605310.27' / Y:376664.84'
LAT:32.03511079 / LON:-103.99348826

PPP-3
FSL 1993' FWL 1350', SECTION 21
NAD 83, SPCS NM EAST
X:646568.21' / Y:373574.96'
LAT:32.02658298 / LON:-103.99376924
NAD 27, SPCS NM EAST
X:605382.57' / Y:373517.46'
LAT:32.02645791 / LON:-103.99328694

PPP-2
FSL 840' FWL 1332', SECTION 21
NAD 83, SPCS NM EAST
X:646594.74' / Y:372421.12'
LAT:32.02341092 / LON:-103.99369534
NAD 27, SPCS NM EAST
X:605409.07' / Y:372363.65'
LAT:32.02328580 / LON:-103.99321315

KOP/FTP/PPP-1
FSL 100' FWL 1320', SECTION 21
NAD 83, SPCS NM EAST
X:646611.77' / Y:371680.57'
LAT:32.02137505 / LON:-103.99364791
NAD 27, SPCS NM EAST
X:605426.07' / Y:371623.12'
LAT:32.02124991 / LON:-103.99316580

SURFACE HOLE
FNL 266' FWL 720', SECTION 28
NAD 83, SPCS NM EAST
X:646010.31' / Y:371327.13'
LAT:32.02040864 / LON:-103.99559214
NAD 27, SPCS NM EAST
X:604824.62' / Y:371269.68'
LAT:32.02028349 / LON:-103.99510998



[17] ***OPERATOR CERTIFICATION***
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

TStathem 2/15/2024
Signature Date

T Stathem
Printed Name

TStathem@marathonoil.com
E-mail Address

[18] ***SURVEYOR CERTIFICATION***
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: DECEMBER 1, 2023
Signature and Seal of Professional Surveyor

*FTP TO LTP LINE BEARINGS

PRODUCTION LINE	BEARING/LENGTH
L1	N01°19'02"W ~ 5043.17'

CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 647898.72' / Y: 376806.37'	A - X: 606713.14' / Y: 376748.81'
B - X: 647981.79' / Y: 371551.73'	B - X: 606796.07' / Y: 371494.28'
C - X: 645293.57' / Y: 371608.28'	C - X: 604107.90' / Y: 371550.82'
D - X: 645193.17' / Y: 374202.36'	D - X: 604007.56' / Y: 374144.84'
E - X: 645175.01' / Y: 376837.52'	E - X: 603989.47' / Y: 376779.95'

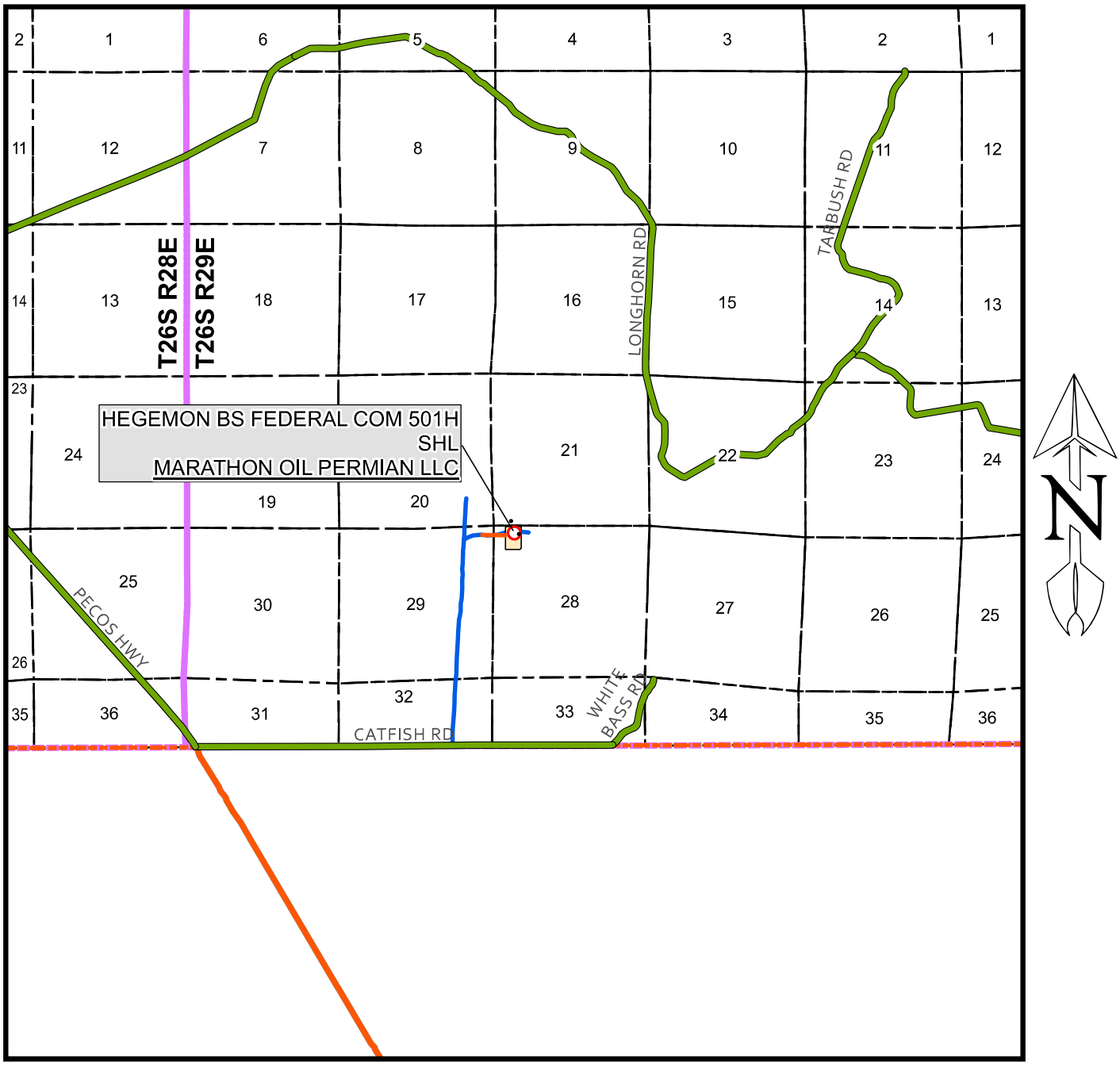
Drill Line Events ⬢ Section Corners ▬ Drill Line ⟷ Dimension Lines ▱ Federal Leases ▭ NMSLO ▭ HSU ○ HSU Corners

All bearings and coordinates refer to New Mexico State Plane coordinate system, East Zone, U.S. Survey Feet.

Distances/areas shown are in NAD 83 grid measurements. Combined Scale Factor: 0.99978647 and a Convergence Angle: 0.17649891°

SHEET 1 OF 2
JOB No. R3965_031
REV 0 TCS 11/3/2023

VICINITY MAP



SEC. 28 TWP. 26S RGE. 29E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
DESCRIPTION: 266' FNL & 720' FWL
ELEVATION: 2896'
LEASE: HEGEMON FEDERAL COM
U.S.G.S. TOPOGRAPHIC MAP: ROSS RANCH, NM.

1" = 1 MILE

FROM THE MARATHON OFFICE AT 4111 TIDWELL, CARLSBAD. NEW MEXICO HEAD SOUTH ON TIDWELL ROAD TOWARD U.S. HIGHWAY 285 NORTH FOR 0.2 MILES. TURN LEFT ONTO U.S. HWY 285 SOUTH, HEADING SOUTH, FOR 28.6 MILES TO CATFISH ROAD ON THE NEW MEXICO/TEXAS STATE LINE. TURN LEFT ONTO CATFISH ROAD, HEADING EAST, FOR 17.7 MILES TO A CALICHE ROAD. TURN LEFT ON THE CALICHE ROAD, HEADING NORTH, FOR 1.26 MILES TO THE PROPOSED LEASE ROAD FOR THE HEGEMON 21 FEDERAL WA30H-WB29H- WA25H-WB24H-WA22H-WB21H-WD31H-WD26H-WD23H-WD18H-WA16H WELL LOCATION PAD. TURN RIGHT ONTO SAID PROPOSED LEASE ROAD, TURN RIGHT ONTO PROPOSED LEASE ROAD, HEADING EAST, FOR 0.3 MILES ENTERING THE WEST SIDE OF SAID WELL LOCATION PAD.

DELTA FIELD SERVICES

SHEET 2 OF 2

PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON STREET, WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3965_031

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Santa Fe, NM 87505

CONDITIONS

Action 326568

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 326568
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	3/25/2024