

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
**Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. NMNM25953

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator MARATHON OIL PERMIAN LLC

3a. Address 990 TOWN & COUNTRY BLVD, HOUSTON, TX 3b. Phone No. (include area code)
(000) 000-00004. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 35/T24S/R28E/NMP

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

8. Well Name and No. RIPLEY 35 -26 SB FED COM/201H

9. API Well No. 3001547620

10. Field and Pool or Exploratory Area
WILLOW LAKE /WILLOW LAKE-BONE SPRING11. 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	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ 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 recompleat 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 performed 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 recompleat 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 determined that the site is ready for final inspection.)

Marathon Oil Permian respectfully requests approval to change the SHL and BHL as shown below. Offset operator drilled and completed wells that required Marathon to change our well spacing.

SHL: 320' FSL 1311' FEL Sec. 35 24S 28E Change to: 320' FSL 1336' FEL Sec. 35 24S 28E

BHL: 100' FNL 2155' FEL Sec. 28 24S 28E Change to: 100' FNL 2310' FEL Sec 26 24S 28E

No additional surface disturbance - SHL located on previously approved pad - please see attached pad diagram. Please see attached C102, drill plan, and directional plan.

Please change the well name and number from Ripley 35-26 SB Fed Com 201H TO: Ripley BS Fed Com #501H

Dean R. McIlure

09/13/2023

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
TERRI STATHEM / Ph: (713) 629-6600

Title Regulatory Compliance Manager

Signature

Date

11/07/2022

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 11/10/2022

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

Office CARLSBAD

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

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

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

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

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

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

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Location of Well

0. SHL: SWSE / 320 FSL / 1311 FEL / TWSP: 24S / RANGE: 28E / SECTION: 35 / LAT: 32.1673832 / LONG: -104.0536591 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 1338 FNL / 1656 FEL / TWSP: 24S / RANGE: 28E / SECTION: 35 / LAT: 32.1775324 / LONG: -104.0547955 (TVD: 9777 feet, MD: 13474 feet)

PPP: SWSE / 330 FSL / 1654 FEL / TWSP: 24S / RANGE: 28E / SECTION: 35 / LAT: 32.1674126 / LONG: -104.0547186 (TVD: 9663 feet, MD: 9768 feet)

BHL: NWNE / 100 FNL / 2155 FEL / TWSP: 24S / RANGE: 28E / SECTION: 35 / LAT: 32.1803026 / LONG: -104.0548165 (TVD: 9777 feet, MD: 14482 feet)

CONFIDENTIAL

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marathon Oil
LEASE NO.:	NMNM25953
LOCATION:	Section 35, T.24 S., R.28E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Ripley BS Fed Com 501H
SURFACE HOLE FOOTAGE:	320'/S & 1336'/E
BOTTOM HOLE FOOTAGE:	100'/N & 2310'/E

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **500** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept 1/3rd 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.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

- ❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **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 OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

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

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
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. **Operator is approved 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. **Operator is approve to set surface casing with Spudder Rig**
- **Notify the BLM when moving in and removing the Spudder Rig.**
 - **Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.**
 - **BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.**
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.
- A. CASING
1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall

have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

ZS 051022

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47620	² Pool Code 64450	³ Pool Name BONE SPRING; WILLOW LAKE
⁴ Property Code 334086	⁵ Property Name RIPLEY BS FED COM	⁶ Well Number 501H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN, LLC	⁹ Elevation 2955'

¹⁰ Surface Location

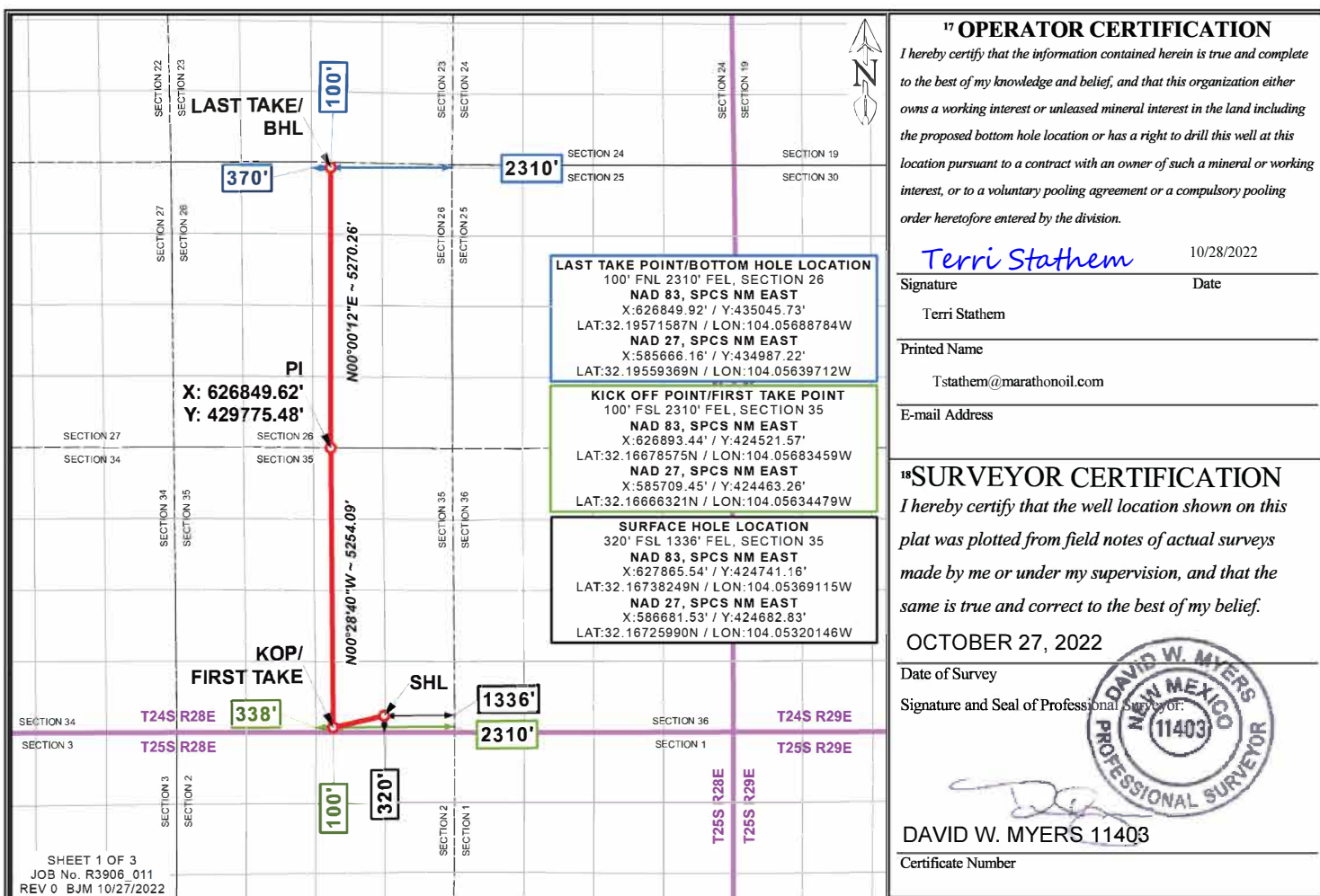
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	35	24S	28E		320	SOUTH	1336	EAST	EDDY

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
B	26	24S	28E		100	NORTH	2310	EAST	EDDY

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.9997778 Convergence Angle: 0°08'28.5600"

WELL PAD PLAT

RIPLEY 35 FED COM

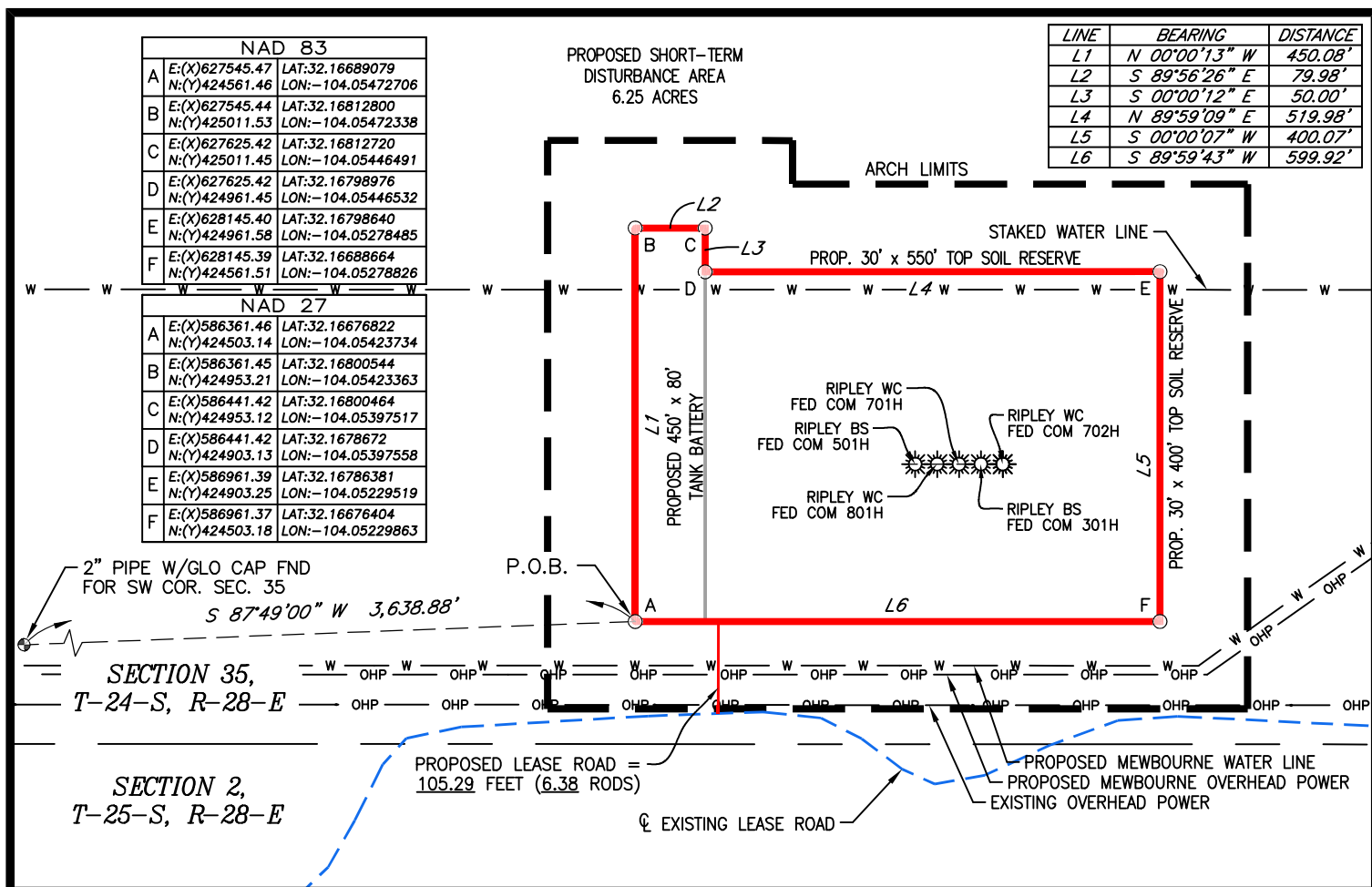
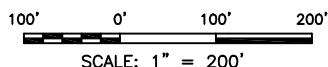
SEC. 35 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

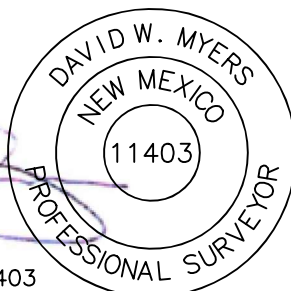
OPERATOR: MARATHON OIL PERMIAN LLC

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



OCTOBER 27, 2022

DAVID W. MYERS 11403



PLAT FOR A SURFACE SITE ON THE PROPERTY OF
DEVON ENERGY
PRODUCTION CO. LP.
EDDY COUNTY, NEW MEXICO

BASIS OF BEARING
ALL BEARINGS AND COORDINATES
REFER TO NAD 83, NEW MEXICO
STATE PLANE COORDINATE
SYSTEM, EAST ZONE, U.S. SURVEY
FEET. (ALL BEARINGS AND
DISTANCES ARE GRID
MEASUREMENTS.)

LEGEND

P.O.B. POINT OF BEGINNING

R3906_001

— — — — — EXISTING ROAD

— — — — — PROPOSED ROAD

— — — — — SURFACE SITE EDGE

— — — — — EXIST. PIPELINE

— — — — — MONUMENT

— — — — — WELL

— — — — — ARCH LIMITS

— — — — — FENCE

— — — — — SECTION LINE

— — — — — WATER LINE

— — — — — OVERHEAD POWER

REV.	DATE	DESCRIPTION	BY	CHKD
10	10/20/2022	RENAME WELLS	ANC	MWS

SHEET 3 of 7

DRAWN BY: JCS

DATE: 05/16/2018

CHECKED BY: MWS



510 TRENTON ST.
WEST MONROE, LA 71291
(318) 323-6900
FAX (318) 362-0064

WELL PAD PLAT

RIPLEY 35 FED COM
SEC. 35 TWP. 24-S RGE. 28-E
SURVEY: N.M.P.M.
COUNTY: EDDY
OPERATOR: MARATHON OIL PERMIAN LLC
U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.

FIELD NOTES DESCRIBING

A tract of land being 5.60 acres. Said tract being located in Section 35, Township 24 South, Range 28 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by metes and bounds as follows:

BEGINNING at a point from which a 2 inch pipe with GLO cap found for the Southwest corner of said Section 35 bears S 87°49'00" W a distance of 3,638.88 feet.

THENCE

N 00°00'13" W a distance of 450.08 feet, S 89°56'26" E a distance of 79.98 feet,
S 00°00'12" E a distance of 50.00 feet, N 89°59'09" E a distance of 519.98 feet,
S 00°00'07" W a distance of 400.07 feet to the Southeast corner of this tract and
S 89°59'43" W a distance of 599.92 feet to the *POINT OF BEGINNING*.

The total area of the herein described tract contains 5.60 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings, distances, coordinates and areas are based on grid measurements utilizing a combined scale factor of 0.9997778, convergence angle of 0.14126667°.)

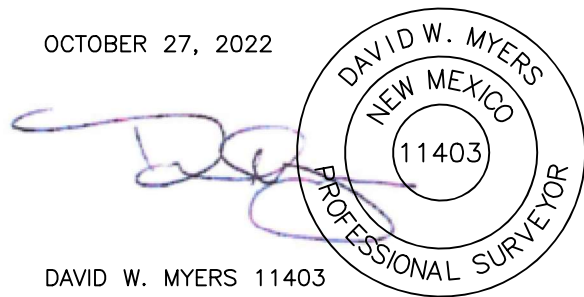
Title information furnished by Marathon Oil Permian LLC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO
COUNTY OF EDDY

I, David W. Myers, New Mexico Professional Surveyor No. 11403 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 further 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.

OCTOBER 27, 2022



DAVID W. MYERS 11403



PLAT FOR A SURFACE SITE ON THE PROPERTY OF
DEVON ENERGY
PRODUCTION CO. LP.
EDDY COUNTY, NEW MEXICO

BASIS OF BEARING
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS AND DISTANCES ARE GRID MEASUREMENTS.)

LEGEND

P.O.B. POINT OF BEGINNING

— x — x — ARCH LIMITS

— — — — — FENCE

— — — — — SECTION LINE

— — — — — WATER LINE

— — — — — OVERHEAD POWER

⊙ MONUMENT

☀ WELL

R3906_001

REV.	DATE	DESCRIPTION	BY	CHKD
10	10/20/2022	RENAME WELLS	ANC	MWS
SHEET 4 of 7				
DRAWN BY: JCS				
DATE: 05/16/2018				
CHECKED BY: MWS				



510 TRENTON ST.
WEST MONROE, LA 71291
(318) 323-6900
FAX (318) 362-0064

LEGEND

PROPOSED WELL PAD	—————
ARCH SURVEY LIMITS	——— ———
PROPOSED LEASE ROAD	—————
EXISTING ROAD	- - - - -
SECTION LINE	——— - - ———
WATER LINE	——— W ———
OVERHEAD POWER	——— OHP ———

WELL LOCATION PLAT

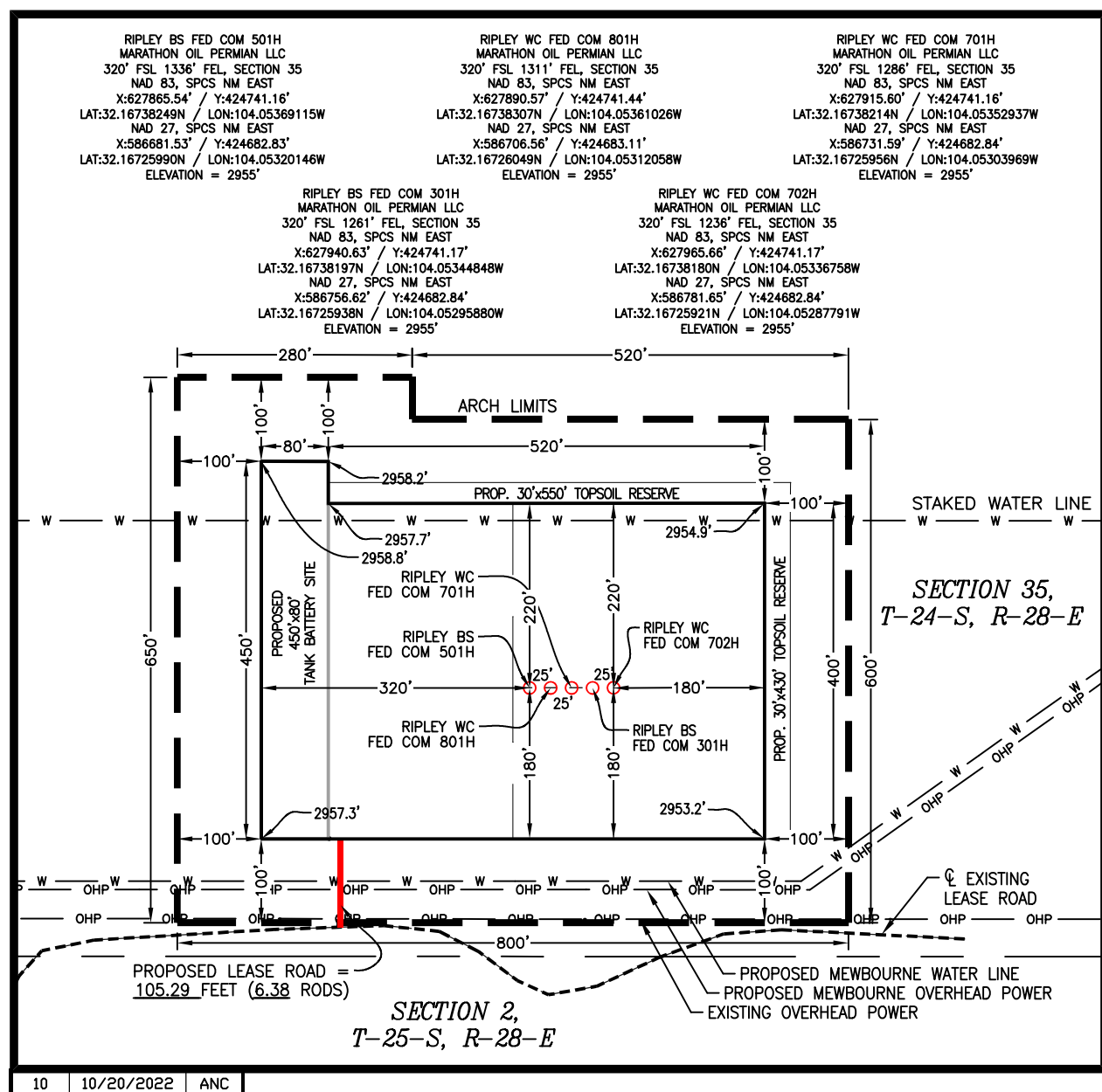
RIPLEY 35 FED COM
SEC. 35 TWP. 24-S RGE. 28-E

SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: MARATHON OIL PERMIAN LLC

U.S.G.S. TOPOGRAPHIC MAP: MALAGA, N.M.



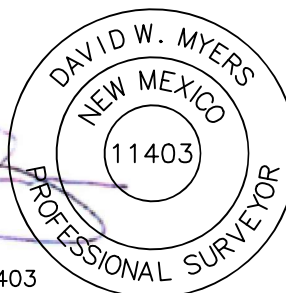
10 10/20/2022 ANC

OCTOBER 27, 2022

NOTE:

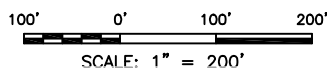
THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA SHOWN IS FROM STATE OF NEW MEXICO OIL CONSERVATION DIVISION FORM C-102 INCLUDED IN THIS SUBMITTAL.

DAVID W. MYERS 11403



SHEET 5 of 7

PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON STREET, WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R3906_001



MARATHON OIL PERMIAN, LLC.
DRILLING AND OPERATIONS PLAN



WELL NAME & NUMBER:

RIPLEY BS FED COM 501H

LOCATION:

SECTION **35**
EDDYTOWNSHIP **24S**
COUNTY,RANGE **28E**
NEW MEXICO**Section 1:****GEOLOGICAL FORMATIONS**

Name of Surface Formation:

Permian

Elevation:

2955 feet

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Rustler	89	89	2171	Anhydrite	Brine	No
Salado	750	750	1720	Salt/Anhydrite	Brine	No
Castile	1009	1009	-354	Salt/Anhydrite	Brine	No
Base of Salt (BX)	2688	2688	-2121	Salt/Anhydrite	Brine	No
Lamar	2688	2688	-2121	Sandstone/Shale	None	No
Bell Canyon	2721	2721	-2146	Sandstone	Oil	No
Cherry Canyon	3600	3600	-3446	Sandstone	Oil	No
Brushy Canyon	4880	4880	-4609	Sandstone	Oil	No
Bone Spring Lime	6434	6434	-6055	Limestone	None	No
Upper Avalon Shale	6480	6480	-6093	Shale	Oil	Yes
1st Bone Spring Sand	7357	7357	-7390	Sandstone	Oil	Yes
2nd Bone Spring Carbonate	7633	7633	-7593	Limestone/Shale	None	No
2nd Bone Spring Sand	7980	7980	-7904	Sandstone	Oil	Yes
3rd Bone Spring Carbonate	8612	8612	-8373	Limestone	Oil	No
3rd Bone Spring Sand	9259	9259	-8964	Sandstone	Oil	Yes
Wolfcamp	9626	9626	-9368	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp A	9773	9773	-9493	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp B	10065	10065	-9822	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp C	10334	10334	-10140	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp D	10843	10843	-10531	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.

Marathon Oil Permian LLC.

Drilling & Operations Plan - Page 2 of 4

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	500	0	500	2955	2455	54.5	J55	BTC	1.00	1.15	BUOY	1.30	BUOY	1.30
Intermediate	12.25	9.625	0	7858	0	7727	2955	-4772	40	P110HC	BTC	1.00	1.15	BUOY	1.30	BUOY	1.30
Production	8.75	5.5	0	18859	0	8400	2955	-5445	23	P110HC	TLW	1.00	1.15	BUOY	1.30	BUOY	1.30
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	200	105	2.12	12.5	222	25	Class C	Extender, Accelerator, LCM
Surface	Tail	200	500	197	1.32	14.8	260	25	Class C	Accelerator
Intermediate	Lead	0	7358	1336	2.18	12.4	2912	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	7358	7858	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	7558	18859	2165	1.68	13	3637	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 (ft ³ /sks)	Water gal/sk	Slurry Description and Cement Type

Marathon Oil Permian LLC.

Drilling & Operations Plan - Page 3 of 4

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	500	Water Based Mud	8.4	8.8
500	7858	Brine or Oil Based Mud	9.2	10.2
7858	18859	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:

Run gamma-ray (GR) and corrected neutron log (CNL) or analogous to surface for future development of the area, one per shared well pad not to exceed 200' radial distance.

Section 7:**ANTICIPATED PRESSURE**

Anticipated Bottom Hole Pressure: 5460 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.

Project: Eddy County, NM (NAD27-NME)
 Site: Ripley BS Fed Com Pad
 Well: Ripley BS Fed Com 501H
 Wellbore: OH
 Design: Plan 1 11-02-22
 Rig: Cactu 169



PHOENIX
 TECHNOLOGY SERVICES

Azimuths to Grid North
 True North: -0.15°
 Magnetic North: 6.48°
 Magnetic Field
 Strength: 475.25 nT
 Dip Angle: 59.78°
 Date: 12/31/2022
 Model: MVHD

Ripley BS Fed Com 501H

BHL - Ripley BS Fed Com 501H
 TD at 18553.30

WELL DETAILS

	+N/S	+E/W	Nothing	East	2955.00
	0.00	42.682.03	58681.53	32° 10' 2.135220 N	104° 3' 11.525325 W

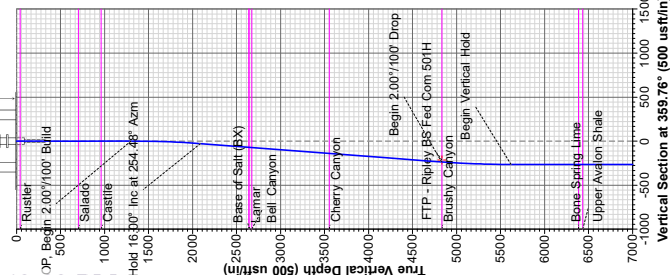
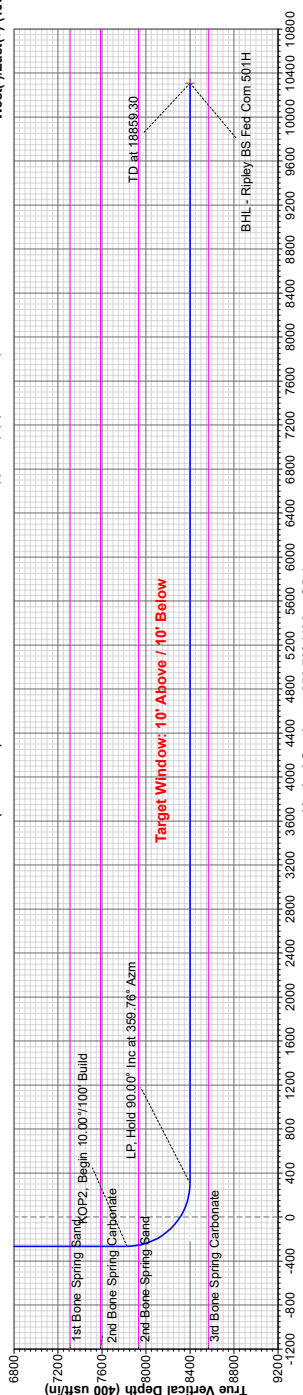
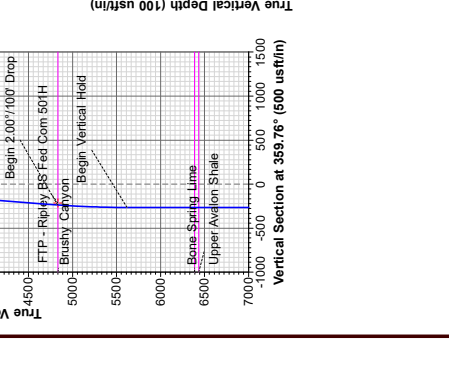
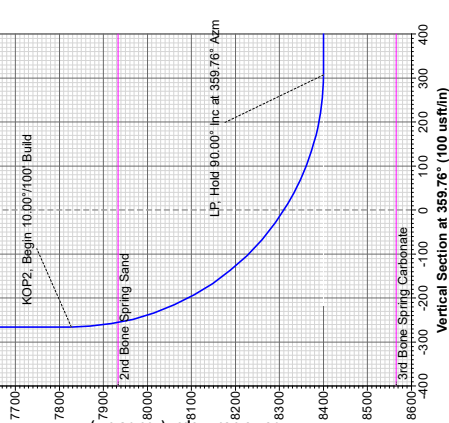
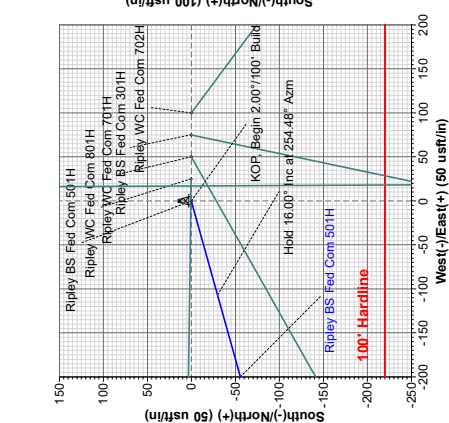
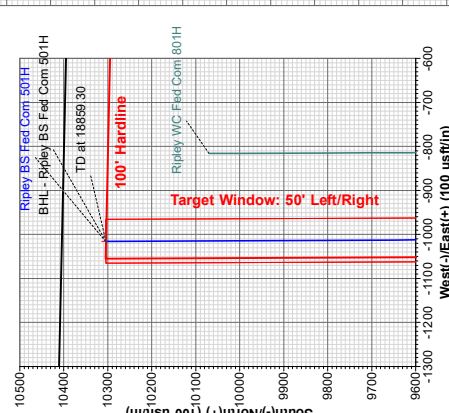
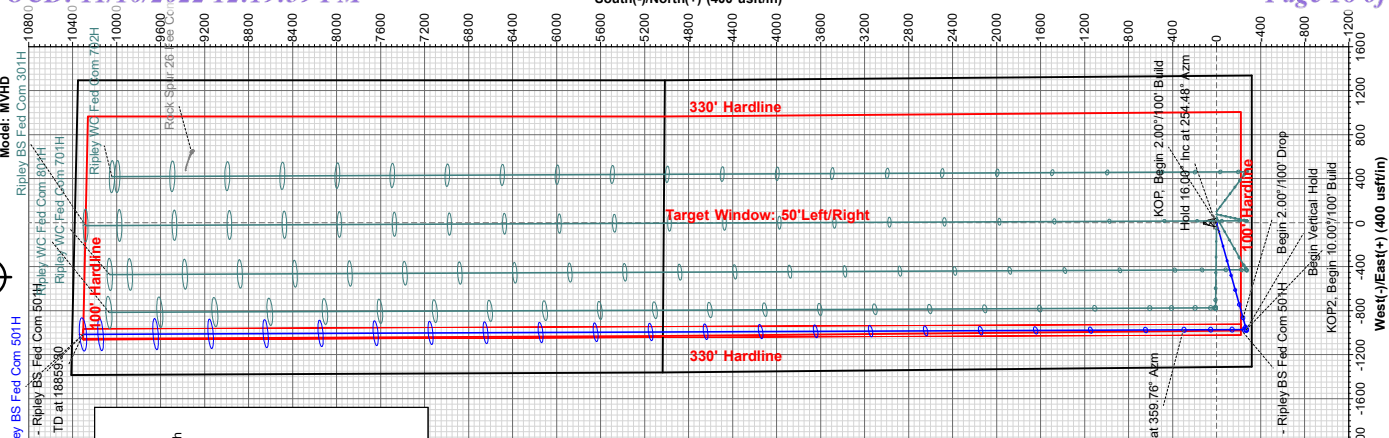
DESIGN TARGET DETAILS

Name	TVD	+N/S	+E/W	Nothing	East	Latitude	Longitude
FTP - Ripley BS Fed Com 501H	4833.60	-219.57	-972.08	42.682.03	58681.53	32° 10' 2.135220 N	104° 3' 11.525325 W
BHL - Ripley BS Fed Com 501H	8400.00	10304.39	-1015.37	43.987.22	58566.16	32° 11' 44.137317 N	104° 3' 23.029658 W

SECTION DETAILS

Sec	ID	Inc	Azi	TVD	+N/S	+E/W	Diag	Tra	Vsed	Target	Annotation
1	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2.00°/100° Build
2	2099.96	16.00	254.48	2099.96	-29.68	-106.32	2.00	254.48	-29.28	0.00	Hold 16.00° Inc at 254.48° Azm
3	4395.23	16.00	254.48	4395.23	-29.68	-106.32	2.00	254.48	-29.28	0.00	Begin 2.00°/100° Drop
4	5751.18	0.00	0.00	5751.18	0.00	0.00	0.00	0.00	0.00	0.00	Begin Vertical Hold
5	7955.19	0.00	0.00	7955.19	0.00	0.00	0.00	0.00	0.00	0.00	KOP2 Begin 10.00°/100° Build
6	8655.19	90.00	359.76	8655.19	90.00	359.76	10.00	359.76	307.44	0.00	LP Hold 90.00° Inc at 359.76° Azm
7	18553.30	50.00	359.76	18553.30	50.00	359.76	10.00	359.76	307.44	0.00	TD at 18553.30

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 Ripley BS Fed Com 501H, Grid North
 Latitude: 32° 10' 2.135220 N
 Longitude: 104° 3' 11.525325 W
 Grid East: 58681.53
 Grid North: 424682.83
 Scale Factor: 1.000
 Geomagnetic Model: MVHD
 Sample Date: 31-Dec-22
 Magnetic Declination: 6.631°
 Dip Angle from Horizontal: 59.779°
 Magnetic Field Strength: 475.25560979nT
 To convert a Magnetic Direction to a Grid Direction, Add 6.48°
 To convert a True Direction to a Grid Direction, Subtract 0.149°





Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)

Ripley Fed Com Pad

Ripley BS Fed Com 501H

OH

Plan: Plan 1 11-02-22

Standard Planning Report

02 November, 2022





Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

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		Ripley Fed Com Pad			
Site Position:		Northing:	424,682.84 usft	Latitude:	32° 10' 2.133784 N
From:	Map	Easting:	586,756.62 usft	Longitude:	104° 3' 10.651717 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.149 °

Well	Ripley BS Fed Com 501H					
Well Position	+N/-S	-0.01 usft	Northing:	424,682.83 usft	Latitude:	32° 10' 2.135620 N
	+E/-W	-75.09 usft	Easting:	586,681.53 usft	Longitude:	104° 3' 11.525325 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	2,955.00 usft

Wellbore	OH				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	12/31/2022	6.631	59.779	47,525.56360978

Design	Plan 1 11-02-22				
---------------	-----------------	--	--	--	--

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	359.76	

Plan Survey Tool Program	Date	11/2/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	18,859.30	Plan 1 11-02-22 (OH)	MWD+HRGM	
				OWSG MWD + HRGM	

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	
2,099.96	16.00	254.48	2,089.60	-29.68	-106.92	2.00	2.00	0.00	254.485	
4,951.23	16.00	254.48	4,830.43	-239.90	-864.16	0.00	0.00	0.00	0.000	
5,751.18	0.00	0.00	5,620.03	-269.59	-971.08	2.00	-2.00	0.00	180.000	
7,958.19	0.00	0.00	7,827.04	-269.59	-971.08	0.00	0.00	0.00	0.000	
8,858.19	90.00	359.76	8,400.00	303.37	-973.48	10.00	10.00	0.00	359.760	
18,859.30	90.00	359.76	8,400.00	10,304.39	-1,015.37	0.00	0.00	0.00	0.000	BHL - Ripley BS Fe



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

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
42.60	0.00	0.00	42.60	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
703.60	0.00	0.00	703.60	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
962.60	0.00	0.00	962.60	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
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	254.48	1,399.98	-0.47	-1.68	-0.46	2.00	2.00	0.00
1,500.00	4.00	254.48	1,499.84	-1.87	-6.72	-1.84	2.00	2.00	0.00
1,600.00	6.00	254.48	1,599.45	-4.20	-15.12	-4.13	2.00	2.00	0.00
1,700.00	8.00	254.48	1,698.70	-7.46	-26.86	-7.35	2.00	2.00	0.00
1,800.00	10.00	254.48	1,797.47	-11.64	-41.94	-11.47	2.00	2.00	0.00
1,900.00	12.00	254.48	1,895.62	-16.75	-60.32	-16.49	2.00	2.00	0.00
2,000.00	14.00	254.48	1,993.06	-22.76	-82.00	-22.42	2.00	2.00	0.00
2,099.96	16.00	254.48	2,089.60	-29.68	-106.92	-29.23	2.00	2.00	0.00
Hold 16.00° Inc at 254.48° Azm									
2,100.00	16.00	254.48	2,089.64	-29.69	-106.93	-29.24	0.00	0.00	0.00
2,200.00	16.00	254.48	2,185.77	-37.06	-133.49	-36.50	0.00	0.00	0.00
2,300.00	16.00	254.48	2,281.90	-44.43	-160.05	-43.76	0.00	0.00	0.00
2,400.00	16.00	254.48	2,378.02	-51.80	-186.61	-51.02	0.00	0.00	0.00
2,500.00	16.00	254.48	2,474.15	-59.18	-213.16	-58.28	0.00	0.00	0.00
2,600.00	16.00	254.48	2,570.28	-66.55	-239.72	-65.55	0.00	0.00	0.00
2,674.20	16.00	254.48	2,641.60	-72.02	-259.43	-70.93	0.00	0.00	0.00
Base of Salt (BX) - Lamar									
2,700.00	16.00	254.48	2,666.40	-73.92	-266.28	-72.81	0.00	0.00	0.00
2,708.53	16.00	254.48	2,674.60	-74.55	-268.54	-73.43	0.00	0.00	0.00
Bell Canyon									
2,800.00	16.00	254.48	2,762.53	-81.30	-292.84	-80.07	0.00	0.00	0.00
2,900.00	16.00	254.48	2,858.66	-88.67	-319.40	-87.33	0.00	0.00	0.00
3,000.00	16.00	254.48	2,954.78	-96.04	-345.95	-94.59	0.00	0.00	0.00
3,100.00	16.00	254.48	3,050.91	-103.41	-372.51	-101.85	0.00	0.00	0.00
3,200.00	16.00	254.48	3,147.04	-110.79	-399.07	-109.11	0.00	0.00	0.00
3,300.00	16.00	254.48	3,243.16	-118.16	-425.63	-116.38	0.00	0.00	0.00
3,400.00	16.00	254.48	3,339.29	-125.53	-452.18	-123.64	0.00	0.00	0.00
3,500.00	16.00	254.48	3,435.42	-132.91	-478.74	-130.90	0.00	0.00	0.00
3,600.00	16.00	254.48	3,531.54	-140.28	-505.30	-138.16	0.00	0.00	0.00
3,622.95	16.00	254.48	3,553.60	-141.97	-511.39	-139.83	0.00	0.00	0.00
Cherry Canyon									
3,700.00	16.00	254.48	3,627.67	-147.65	-531.86	-145.42	0.00	0.00	0.00
3,800.00	16.00	254.48	3,723.80	-155.02	-558.42	-152.68	0.00	0.00	0.00
3,900.00	16.00	254.48	3,819.92	-162.40	-584.97	-159.95	0.00	0.00	0.00
4,000.00	16.00	254.48	3,916.05	-169.77	-611.53	-167.21	0.00	0.00	0.00
4,100.00	16.00	254.48	4,012.17	-177.14	-638.09	-174.47	0.00	0.00	0.00
4,200.00	16.00	254.48	4,108.30	-184.52	-664.65	-181.73	0.00	0.00	0.00
4,300.00	16.00	254.48	4,204.43	-191.89	-691.20	-188.99	0.00	0.00	0.00
4,400.00	16.00	254.48	4,300.55	-199.26	-717.76	-196.25	0.00	0.00	0.00
4,500.00	16.00	254.48	4,396.68	-206.63	-744.32	-203.51	0.00	0.00	0.00
4,600.00	16.00	254.48	4,492.81	-214.01	-770.88	-210.78	0.00	0.00	0.00
4,700.00	16.00	254.48	4,588.93	-221.38	-797.44	-218.04	0.00	0.00	0.00
4,800.00	16.00	254.48	4,685.06	-228.75	-823.99	-225.30	0.00	0.00	0.00
4,900.00	16.00	254.48	4,781.19	-236.13	-850.55	-232.56	0.00	0.00	0.00



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,951.23	16.00	254.48	4,830.43	-239.90	-864.16	-236.28	0.00	0.00	0.00
Begin 2.00°/100' Drop									
4,954.52	15.93	254.48	4,833.60	-240.14	-865.03	-236.52	2.00	-2.00	0.00
Brushy Canyon									
5,000.00	15.02	254.48	4,877.43	-243.39	-876.72	-239.72	2.00	-2.00	0.00
5,100.00	13.02	254.48	4,974.44	-249.87	-900.07	-246.10	2.00	-2.00	0.00
5,200.00	11.02	254.48	5,072.24	-255.45	-920.14	-251.59	2.00	-2.00	0.00
5,300.00	9.02	254.48	5,170.71	-260.10	-936.91	-256.17	2.00	-2.00	0.00
5,400.00	7.02	254.48	5,269.73	-263.83	-950.36	-259.85	2.00	-2.00	0.00
5,500.00	5.02	254.48	5,369.17	-266.64	-960.47	-262.62	2.00	-2.00	0.00
5,600.00	3.02	254.48	5,468.92	-268.52	-967.23	-264.46	2.00	-2.00	0.00
5,700.00	1.02	254.48	5,568.85	-269.46	-970.64	-265.39	2.00	-2.00	0.00
5,751.18	0.00	0.00	5,620.03	-269.59	-971.08	-265.52	2.00	-2.00	0.00
Begin Vertical Hold									
6,518.75	0.00	0.00	6,387.60	-269.59	-971.08	-265.52	0.00	0.00	0.00
Bone Spring Lime									
6,564.75	0.00	0.00	6,433.60	-269.59	-971.08	-265.52	0.00	0.00	0.00
Upper Avalon Shale									
7,441.75	0.00	0.00	7,310.60	-269.59	-971.08	-265.52	0.00	0.00	0.00
1st Bone Spring Sand									
7,717.75	0.00	0.00	7,586.60	-269.59	-971.08	-265.52	0.00	0.00	0.00
2nd Bone Spring Carbonate									
7,958.19	0.00	0.00	7,827.04	-269.59	-971.08	-265.52	0.00	0.00	0.00
KOP2, Begin 10.00°/100' Build									
8,000.00	4.18	359.76	7,868.81	-268.06	-971.08	-263.99	10.00	10.00	0.00
8,065.38	10.72	359.76	7,933.60	-259.59	-971.12	-255.52	10.00	10.00	0.00
2nd Bone Spring Sand									
8,100.00	14.18	359.76	7,967.40	-252.13	-971.15	-248.06	10.00	10.00	0.00
8,200.00	24.18	359.76	8,061.73	-219.31	-971.29	-215.24	10.00	10.00	0.00
8,300.00	34.18	359.76	8,148.93	-170.62	-971.49	-166.55	10.00	10.00	0.00
8,400.00	44.18	359.76	8,226.35	-107.52	-971.76	-103.45	10.00	10.00	0.00
8,500.00	54.18	359.76	8,291.63	-31.94	-972.07	-27.87	10.00	10.00	0.00
8,600.00	64.18	359.76	8,342.80	53.83	-972.43	57.90	10.00	10.00	0.00
8,700.00	74.18	359.76	8,378.30	147.18	-972.82	151.25	10.00	10.00	0.00
8,800.00	84.18	359.76	8,397.05	245.27	-973.23	249.35	10.00	10.00	0.00
8,858.19	90.00	359.76	8,400.00	303.37	-973.48	307.44	10.00	10.00	0.00
LP, Hold 90.00° Inc at 359.76° Azm									
8,900.00	90.00	359.76	8,400.00	345.17	-973.65	349.25	0.00	0.00	0.00
9,000.00	90.00	359.76	8,400.00	445.17	-974.07	449.25	0.00	0.00	0.00
9,100.00	90.00	359.76	8,400.00	545.17	-974.49	549.25	0.00	0.00	0.00
9,200.00	90.00	359.76	8,400.00	645.17	-974.91	649.25	0.00	0.00	0.00
9,300.00	90.00	359.76	8,400.00	745.17	-975.33	749.25	0.00	0.00	0.00
9,400.00	90.00	359.76	8,400.00	845.17	-975.75	849.25	0.00	0.00	0.00
9,500.00	90.00	359.76	8,400.00	945.17	-976.17	949.25	0.00	0.00	0.00
9,600.00	90.00	359.76	8,400.00	1,045.17	-976.58	1,049.25	0.00	0.00	0.00
9,700.00	90.00	359.76	8,400.00	1,145.17	-977.00	1,149.25	0.00	0.00	0.00
9,800.00	90.00	359.76	8,400.00	1,245.17	-977.42	1,249.25	0.00	0.00	0.00
9,900.00	90.00	359.76	8,400.00	1,345.16	-977.84	1,349.25	0.00	0.00	0.00
10,000.00	90.00	359.76	8,400.00	1,445.16	-978.26	1,449.25	0.00	0.00	0.00
10,100.00	90.00	359.76	8,400.00	1,545.16	-978.68	1,549.25	0.00	0.00	0.00
10,200.00	90.00	359.76	8,400.00	1,645.16	-979.10	1,649.25	0.00	0.00	0.00
10,300.00	90.00	359.76	8,400.00	1,745.16	-979.52	1,749.25	0.00	0.00	0.00
10,400.00	90.00	359.76	8,400.00	1,845.16	-979.94	1,849.25	0.00	0.00	0.00



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

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)
10,500.00	90.00	359.76	8,400.00	1,945.16	-980.35	1,949.25	0.00	0.00	0.00
10,600.00	90.00	359.76	8,400.00	2,045.16	-980.77	2,049.25	0.00	0.00	0.00
10,700.00	90.00	359.76	8,400.00	2,145.16	-981.19	2,149.25	0.00	0.00	0.00
10,800.00	90.00	359.76	8,400.00	2,245.16	-981.61	2,249.25	0.00	0.00	0.00
10,900.00	90.00	359.76	8,400.00	2,345.16	-982.03	2,349.25	0.00	0.00	0.00
11,000.00	90.00	359.76	8,400.00	2,445.15	-982.45	2,449.25	0.00	0.00	0.00
11,100.00	90.00	359.76	8,400.00	2,545.15	-982.87	2,549.25	0.00	0.00	0.00
11,200.00	90.00	359.76	8,400.00	2,645.15	-983.29	2,649.25	0.00	0.00	0.00
11,300.00	90.00	359.76	8,400.00	2,745.15	-983.71	2,749.25	0.00	0.00	0.00
11,400.00	90.00	359.76	8,400.00	2,845.15	-984.12	2,849.25	0.00	0.00	0.00
11,500.00	90.00	359.76	8,400.00	2,945.15	-984.54	2,949.25	0.00	0.00	0.00
11,600.00	90.00	359.76	8,400.00	3,045.15	-984.96	3,049.25	0.00	0.00	0.00
11,700.00	90.00	359.76	8,400.00	3,145.15	-985.38	3,149.25	0.00	0.00	0.00
11,800.00	90.00	359.76	8,400.00	3,245.15	-985.80	3,249.25	0.00	0.00	0.00
11,900.00	90.00	359.76	8,400.00	3,345.15	-986.22	3,349.25	0.00	0.00	0.00
12,000.00	90.00	359.76	8,400.00	3,445.15	-986.64	3,449.25	0.00	0.00	0.00
12,100.00	90.00	359.76	8,400.00	3,545.15	-987.06	3,549.25	0.00	0.00	0.00
12,200.00	90.00	359.76	8,400.00	3,645.14	-987.48	3,649.25	0.00	0.00	0.00
12,300.00	90.00	359.76	8,400.00	3,745.14	-987.89	3,749.25	0.00	0.00	0.00
12,400.00	90.00	359.76	8,400.00	3,845.14	-988.31	3,849.25	0.00	0.00	0.00
12,500.00	90.00	359.76	8,400.00	3,945.14	-988.73	3,949.25	0.00	0.00	0.00
12,600.00	90.00	359.76	8,400.00	4,045.14	-989.15	4,049.25	0.00	0.00	0.00
12,700.00	90.00	359.76	8,400.00	4,145.14	-989.57	4,149.25	0.00	0.00	0.00
12,800.00	90.00	359.76	8,400.00	4,245.14	-989.99	4,249.25	0.00	0.00	0.00
12,900.00	90.00	359.76	8,400.00	4,345.14	-990.41	4,349.25	0.00	0.00	0.00
13,000.00	90.00	359.76	8,400.00	4,445.14	-990.83	4,449.25	0.00	0.00	0.00
13,100.00	90.00	359.76	8,400.00	4,545.14	-991.25	4,549.25	0.00	0.00	0.00
13,200.00	90.00	359.76	8,400.00	4,645.14	-991.66	4,649.25	0.00	0.00	0.00
13,300.00	90.00	359.76	8,400.00	4,745.13	-992.08	4,749.25	0.00	0.00	0.00
13,400.00	90.00	359.76	8,400.00	4,845.13	-992.50	4,849.25	0.00	0.00	0.00
13,500.00	90.00	359.76	8,400.00	4,945.13	-992.92	4,949.25	0.00	0.00	0.00
13,600.00	90.00	359.76	8,400.00	5,045.13	-993.34	5,049.25	0.00	0.00	0.00
13,700.00	90.00	359.76	8,400.00	5,145.13	-993.76	5,149.25	0.00	0.00	0.00
13,800.00	90.00	359.76	8,400.00	5,245.13	-994.18	5,249.25	0.00	0.00	0.00
13,900.00	90.00	359.76	8,400.00	5,345.13	-994.60	5,349.25	0.00	0.00	0.00
14,000.00	90.00	359.76	8,400.00	5,445.13	-995.02	5,449.25	0.00	0.00	0.00
14,100.00	90.00	359.76	8,400.00	5,545.13	-995.43	5,549.25	0.00	0.00	0.00
14,200.00	90.00	359.76	8,400.00	5,645.13	-995.85	5,649.25	0.00	0.00	0.00
14,300.00	90.00	359.76	8,400.00	5,745.13	-996.27	5,749.25	0.00	0.00	0.00
14,400.00	90.00	359.76	8,400.00	5,845.13	-996.69	5,849.25	0.00	0.00	0.00
14,500.00	90.00	359.76	8,400.00	5,945.12	-997.11	5,949.25	0.00	0.00	0.00
14,600.00	90.00	359.76	8,400.00	6,045.12	-997.53	6,049.25	0.00	0.00	0.00
14,700.00	90.00	359.76	8,400.00	6,145.12	-997.95	6,149.25	0.00	0.00	0.00
14,800.00	90.00	359.76	8,400.00	6,245.12	-998.37	6,249.25	0.00	0.00	0.00
14,900.00	90.00	359.76	8,400.00	6,345.12	-998.79	6,349.25	0.00	0.00	0.00
15,000.00	90.00	359.76	8,400.00	6,445.12	-999.20	6,449.25	0.00	0.00	0.00
15,100.00	90.00	359.76	8,400.00	6,545.12	-999.62	6,549.25	0.00	0.00	0.00
15,200.00	90.00	359.76	8,400.00	6,645.12	-1,000.04	6,649.25	0.00	0.00	0.00
15,300.00	90.00	359.76	8,400.00	6,745.12	-1,000.46	6,749.25	0.00	0.00	0.00
15,400.00	90.00	359.76	8,400.00	6,845.12	-1,000.88	6,849.25	0.00	0.00	0.00
15,500.00	90.00	359.76	8,400.00	6,945.12	-1,001.30	6,949.25	0.00	0.00	0.00
15,600.00	90.00	359.76	8,400.00	7,045.11	-1,001.72	7,049.25	0.00	0.00	0.00
15,700.00	90.00	359.76	8,400.00	7,145.11	-1,002.14	7,149.25	0.00	0.00	0.00
15,800.00	90.00	359.76	8,400.00	7,245.11	-1,002.56	7,249.25	0.00	0.00	0.00



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

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)
15,900.00	90.00	359.76	8,400.00	7,345.11	-1,002.97	7,349.25	0.00	0.00	0.00
16,000.00	90.00	359.76	8,400.00	7,445.11	-1,003.39	7,449.25	0.00	0.00	0.00
16,100.00	90.00	359.76	8,400.00	7,545.11	-1,003.81	7,549.25	0.00	0.00	0.00
16,200.00	90.00	359.76	8,400.00	7,645.11	-1,004.23	7,649.25	0.00	0.00	0.00
16,300.00	90.00	359.76	8,400.00	7,745.11	-1,004.65	7,749.25	0.00	0.00	0.00
16,400.00	90.00	359.76	8,400.00	7,845.11	-1,005.07	7,849.25	0.00	0.00	0.00
16,500.00	90.00	359.76	8,400.00	7,945.11	-1,005.49	7,949.25	0.00	0.00	0.00
16,600.00	90.00	359.76	8,400.00	8,045.11	-1,005.91	8,049.25	0.00	0.00	0.00
16,700.00	90.00	359.76	8,400.00	8,145.10	-1,006.33	8,149.25	0.00	0.00	0.00
16,800.00	90.00	359.76	8,400.00	8,245.10	-1,006.74	8,249.25	0.00	0.00	0.00
16,900.00	90.00	359.76	8,400.00	8,345.10	-1,007.16	8,349.25	0.00	0.00	0.00
17,000.00	90.00	359.76	8,400.00	8,445.10	-1,007.58	8,449.25	0.00	0.00	0.00
17,100.00	90.00	359.76	8,400.00	8,545.10	-1,008.00	8,549.25	0.00	0.00	0.00
17,200.00	90.00	359.76	8,400.00	8,645.10	-1,008.42	8,649.25	0.00	0.00	0.00
17,300.00	90.00	359.76	8,400.00	8,745.10	-1,008.84	8,749.25	0.00	0.00	0.00
17,400.00	90.00	359.76	8,400.00	8,845.10	-1,009.26	8,849.25	0.00	0.00	0.00
17,500.00	90.00	359.76	8,400.00	8,945.10	-1,009.68	8,949.25	0.00	0.00	0.00
17,600.00	90.00	359.76	8,400.00	9,045.10	-1,010.10	9,049.25	0.00	0.00	0.00
17,700.00	90.00	359.76	8,400.00	9,145.10	-1,010.51	9,149.25	0.00	0.00	0.00
17,800.00	90.00	359.76	8,400.00	9,245.10	-1,010.93	9,249.25	0.00	0.00	0.00
17,900.00	90.00	359.76	8,400.00	9,345.09	-1,011.35	9,349.25	0.00	0.00	0.00
18,000.00	90.00	359.76	8,400.00	9,445.09	-1,011.77	9,449.25	0.00	0.00	0.00
18,100.00	90.00	359.76	8,400.00	9,545.09	-1,012.19	9,549.25	0.00	0.00	0.00
18,200.00	90.00	359.76	8,400.00	9,645.09	-1,012.61	9,649.25	0.00	0.00	0.00
18,300.00	90.00	359.76	8,400.00	9,745.09	-1,013.03	9,749.25	0.00	0.00	0.00
18,400.00	90.00	359.76	8,400.00	9,845.09	-1,013.45	9,849.25	0.00	0.00	0.00
18,500.00	90.00	359.76	8,400.00	9,945.09	-1,013.86	9,949.25	0.00	0.00	0.00
18,600.00	90.00	359.76	8,400.00	10,045.09	-1,014.28	10,049.25	0.00	0.00	0.00
18,700.00	90.00	359.76	8,400.00	10,145.09	-1,014.70	10,149.25	0.00	0.00	0.00
18,800.00	90.00	359.76	8,400.00	10,245.09	-1,015.12	10,249.25	0.00	0.00	0.00
18,859.30	90.00	359.76	8,400.00	10,304.39	-1,015.37	10,308.55	0.00	0.00	0.00
TD at 18859.30									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Ripley BS Fed (	0.00	0.00	4,833.60	-219.57	-972.08	424,463.26	585,709.45	32° 9' 59.987578 N	04° 3' 22.841208 W
- plan misses target center by 105.77usft at 4980.58usft MD (4858.69 TVD, -242.03 N, -871.81 E)									
- Point									
BHL - Ripley BS Fed (	0.00	359.76	8,400.00	10,304.39	-1,015.37	434,987.22	585,666.16	32° 11' 44.137318 N	04° 3' 23.029658 W
- plan hits target center									
- Rectangle (sides W100.00 H10,524.05 D0.00)									



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site:	Ripley Fed Com Pad	North Reference:	Grid
Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 11-02-22		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
42.60	42.60	Rustler		0.000	359.76
703.60	703.60	Salado		0.000	359.76
962.60	962.60	Castile		0.000	359.76
2,674.20	2,641.60	Base of Salt (BX)		0.000	359.76
2,674.20	2,641.60	Lamar		0.000	359.76
2,708.53	2,674.60	Bell Canyon		0.000	359.76
3,622.95	3,553.60	Cherry Canyon		0.000	359.76
4,954.52	4,833.60	Brushy Canyon		0.000	359.76
6,518.75	6,387.60	Bone Spring Lime		0.000	359.76
6,564.75	6,433.60	Upper Avalon Shale		0.000	359.76
7,441.75	7,310.60	1st Bone Spring Sand		0.000	359.76
7,717.75	7,586.60	2nd Bone Spring Carbonate		0.000	359.76
8,065.38	7,933.60	2nd Bone Spring Sand		0.000	359.76

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,300.00	1,300.00	0.00	0.00	KOP, Begin 2.00°/100' Build
2,099.96	2,089.60	-29.68	-106.92	Hold 16.00° Inc at 254.48° Azm
4,951.23	4,830.43	-239.90	-864.16	Begin 2.00°/100' Drop
5,751.18	5,620.03	-269.59	-971.08	Begin Vertical Hold
7,958.19	7,827.04	-269.59	-971.08	KOP2, Begin 10.00°/100' Build
8,858.19	8,400.00	303.37	-973.48	LP, Hold 90.00° Inc at 359.76° Azm
18,859.30	8,400.00	10,304.39	-1,015.37	TD at 18859.30



Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)

Ripley Fed Com Pad

Ripley BS Fed Com 501H

OH

Plan 1 11-02-22

Anticollision Report

02 November, 2022





Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Reference	Plan 1 11-02-22		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. SF of 4	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	11/2/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,859.30	Plan 1 11-02-22 (OH)	MWD+HRGM	OWSG MWD + HRGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Ripley Fed Com Pad						
Ripley BS Fed Com 301H - OH - Plan 1 11-02-22	1,300.01	1,300.04	75.09	66.42	8.659	CC, ES
Ripley BS Fed Com 301H - OH - Plan 1 11-02-22	1,400.00	1,400.54	76.42	67.30	8.383	SF
Ripley WC Fed Com 701H - OH - Plan 1 11-02-22	1,300.00	1,300.00	50.06	41.39	5.773	CC
Ripley WC Fed Com 701H - OH - Plan 1 11-02-22	1,500.00	1,503.07	50.64	40.94	5.221	ES
Ripley WC Fed Com 701H - OH - Plan 1 11-02-22	1,800.00	1,807.46	54.47	43.29	4.869	SF
Ripley WC Fed Com 702H - OH - Plan 1 11-02-22	0.00	0.00	100.12			
Ripley WC Fed Com 702H - OH - Plan 1 11-02-22	1,300.00	1,300.00	100.12	91.45	11.545	CC, ES
Ripley WC Fed Com 801H - OH - Plan 1 11-02-22	1,572.53	1,574.88	24.76	14.57	2.430	CC
Ripley WC Fed Com 801H - OH - Plan 1 11-02-22	1,700.00	1,703.36	25.12	14.21	2.303	ES
Ripley WC Fed Com 801H - OH - Plan 1 11-02-22	1,800.00	1,804.08	26.24	14.82	2.296	SF
Ripley Fed Com Pad - Offsets						
Rock Spur 26 Fee Com - OH - OH						Out of range

Offset Design:	Ripley Fed Com Pad - Ripley BS Fed Com 301H - OH - Plan 1 11-02-22												Offset Site Error:	0.00 usft
Survey Program:	O-MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Rule Assigned:	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	+N/-S (usft)	+E/-W (usft)							
0.00	0.00	0.03	0.00	0.00	0.00	89.992	0.01	75.09	75.09					
100.00	100.00	100.03	100.00	0.53	0.53	89.992	0.01	75.09	75.09	74.02	1.07	70.439		
200.00	200.00	200.03	200.00	1.32	1.32	89.992	0.01	75.09	75.09	72.44	2.65	28.349		
300.00	300.00	300.03	300.00	1.80	1.80	89.992	0.01	75.09	75.09	71.49	3.60	20.868		
400.00	400.00	400.03	400.00	2.18	2.18	89.992	0.01	75.09	75.09	70.74	4.35	17.257		
500.00	500.00	500.03	500.00	2.50	2.50	89.992	0.01	75.09	75.09	70.09	5.00	15.026		
600.00	600.00	600.03	600.00	2.79	2.79	89.992	0.01	75.09	75.09	69.52	5.57	13.472		
700.00	700.00	700.03	700.00	3.05	3.05	89.992	0.01	75.09	75.09	68.99	6.10	12.310		
800.00	800.00	800.03	800.00	3.29	3.29	89.992	0.01	75.09	75.09	68.50	6.59	11.397		
900.00	900.00	900.03	900.00	3.52	3.52	89.992	0.01	75.09	75.09	68.04	7.05	10.655		
1,000.00	1,000.00	1,000.03	1,000.00	3.74	3.74	89.992	0.01	75.09	75.09	67.61	7.48	10.037		
1,100.00	1,100.00	1,100.03	1,100.00	3.95	3.95	89.992	0.01	75.09	75.09	67.20	7.89	9.512		
1,200.00	1,200.00	1,200.03	1,200.00	4.15	4.15	89.992	0.01	75.09	75.09	66.80	8.29	9.057		
1,300.00	1,300.00	1,300.03	1,300.00	4.34	4.34	89.992	0.01	75.09	75.09	66.42	8.67	8.659		
1,300.01	1,300.01	1,300.04	1,300.01	4.34	4.34	89.992	0.01	75.09	75.09	66.42	8.67	8.659	CC, ES	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley BS Fed Com 301H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: C-MWD+HRGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,400.00	1,399.98	1,400.54	1,400.49	4.62	4.61	-163.542	-1.72	74.73	76.42	67.30	9.12	8,383 SF	
1,500.00	1,499.84	1,500.85	1,500.66	4.90	4.88	-160.887	-6.88	73.64	80.52	71.00	9.52	8,458	
1,600.00	1,599.45	1,600.64	1,600.10	5.19	4.98	-157.332	-14.98	71.93	87.72	77.89	9.83	8,922	
1,700.00	1,698.70	1,700.00	1,699.08	5.50	5.19	-154.921	-23.45	70.14	98.32	88.07	10.25	9,593	
1,800.00	1,797.47	1,799.02	1,797.72	5.83	5.41	-153.742	-31.90	68.36	112.14	101.46	10.69	10,495	
1,900.00	1,895.62	1,897.57	1,895.90	6.18	5.66	-153.478	-40.30	66.59	129.08	117.93	11.15	11,579	
2,000.00	1,993.06	1,995.53	1,993.49	6.54	5.91	-153.822	-48.66	64.82	149.09	137.45	11.64	12,812	
2,099.96	2,089.60	2,092.75	2,090.34	6.93	6.17	-154.533	-56.95	63.08	172.17	160.02	12.15	14,168	
2,200.00	2,185.77	2,189.66	2,186.88	7.26	6.45	-155.453	-65.22	61.33	196.85	184.22	12.63	15,582	
2,300.00	2,281.90	2,286.53	2,283.38	7.61	6.73	-156.168	-73.48	59.59	221.55	208.43	13.13	16,875	
2,400.00	2,378.02	2,383.39	2,379.87	7.97	7.03	-156.739	-81.74	57.85	246.29	232.64	13.64	18,054	
2,500.00	2,474.15	2,480.26	2,476.37	8.35	7.33	-157.206	-90.01	56.10	271.04	256.87	14.17	19,130	
2,600.00	2,570.28	2,577.13	2,572.87	8.75	7.64	-157.595	-98.27	54.36	295.80	281.09	14.71	20,112	
2,700.00	2,666.40	2,674.00	2,669.37	9.15	7.95	-157.924	-106.53	52.62	320.57	305.32	15.26	21,010	
2,800.00	2,762.53	2,770.86	2,765.87	9.56	8.27	-158.206	-114.79	50.87	345.36	329.54	15.82	21,833	
2,900.00	2,858.66	2,867.73	2,862.37	9.98	8.59	-158.450	-123.06	49.13	370.15	353.76	16.39	22,587	
3,000.00	2,954.78	2,964.60	2,958.87	10.41	8.92	-158.663	-131.32	47.39	394.94	377.98	16.96	23,281	
3,100.00	3,050.91	3,061.47	3,055.36	10.85	9.25	-158.851	-139.58	45.65	419.74	402.19	17.55	23,920	
3,200.00	3,147.04	3,158.33	3,151.86	11.29	9.58	-159.019	-147.84	43.90	444.55	426.41	18.14	24,511	
3,300.00	3,243.16	3,255.20	3,248.36	11.73	9.92	-159.168	-156.11	42.16	469.35	450.62	18.73	25,056	
3,400.00	3,339.29	3,352.07	3,344.86	12.18	10.26	-159.303	-164.37	40.42	494.16	474.83	19.33	25,562	
3,500.00	3,435.42	3,448.94	3,441.36	12.64	10.60	-159.424	-172.63	38.68	518.97	499.04	19.94	26,032	
3,600.00	3,531.54	3,545.80	3,537.86	13.10	10.95	-159.535	-180.90	36.93	543.79	523.24	20.54	26,470	
3,700.00	3,627.67	3,642.67	3,634.36	13.56	11.30	-159.636	-189.16	35.19	568.60	547.45	21.16	26,878	
3,800.00	3,723.80	3,739.54	3,730.85	14.02	11.64	-159.728	-197.42	33.45	593.42	571.65	21.77	27,259	
3,900.00	3,819.92	3,836.40	3,827.35	14.49	11.99	-159.813	-205.68	31.70	618.24	595.85	22.39	27,615	
4,000.00	3,916.05	3,933.27	3,923.85	14.96	12.35	-159.892	-213.95	29.96	643.06	620.05	23.01	27,949	
4,100.00	4,012.17	4,030.14	4,020.35	15.43	12.70	-159.964	-222.21	28.22	667.88	644.25	23.63	28,263	
4,200.00	4,108.30	4,127.01	4,116.85	15.91	13.05	-160.032	-230.47	26.48	692.70	668.45	24.26	28,558	
4,300.00	4,204.43	4,223.87	4,213.35	16.38	13.41	-160.094	-238.73	24.73	717.52	692.64	24.88	28,836	
4,400.00	4,300.55	4,320.74	4,309.85	16.86	13.77	-160.153	-247.00	22.99	742.35	716.84	25.51	29,098	
4,500.00	4,396.68	4,417.61	4,406.34	17.34	14.12	-160.208	-255.26	21.25	767.17	741.03	26.14	29,353	
4,600.00	4,492.81	4,512.57	4,500.98	17.82	14.45	-160.287	-262.98	19.62	792.05	765.34	26.72	29,643	
4,700.00	4,588.93	4,605.39	4,593.65	18.30	14.79	-160.550	-267.93	18.57	817.35	790.02	27.33	29,909	
4,800.00	4,685.06	4,697.65	4,685.89	18.78	15.06	-161.004	-269.94	18.15	843.15	815.22	27.93	30,191	
4,900.00	4,781.19	4,792.95	4,781.19	19.27	15.11	-161.584	-270.00	18.14	869.35	840.87	28.48	30,523	
4,951.23	4,830.43	4,842.19	4,830.43	19.51	15.12	-161.872	-270.00	18.14	882.81	854.04	28.77	30,688	
5,000.00	4,877.43	4,889.19	4,877.43	19.73	15.14	-162.210	-270.00	18.14	895.26	866.22	29.04	30,831	
5,100.00	4,974.44	4,986.20	4,974.44	20.23	15.18	-162.812	-270.00	18.14	918.43	888.81	29.62	31,008	
5,200.00	5,072.24	5,084.01	5,072.24	20.71	15.22	-163.305	-270.00	18.14	938.40	908.22	30.18	31,093	
5,300.00	5,170.71	5,182.47	5,170.71	21.18	15.26	-163.700	-270.00	18.14	955.10	924.39	30.72	31,092	
5,400.00	5,269.73	5,281.49	5,269.73	21.63	15.30	-164.006	-270.00	18.14	968.52	937.29	31.23	31,012	
5,500.00	5,369.17	5,380.93	5,369.17	22.05	15.35	-164.231	-270.00	18.14	978.62	946.91	31.71	30,860	
5,600.00	5,468.92	5,480.68	5,468.92	22.43	15.39	-164.378	-270.00	18.14	985.37	953.22	32.15	30,647	
5,700.00	5,568.85	5,580.61	5,568.85	22.76	15.43	-164.451	-270.00	18.14	988.78	956.24	32.53	30,393	
5,751.18	5,620.03	5,631.79	5,620.03	22.82	15.45	90.024	-270.00	18.14	989.22	956.59	32.63	30,316	
5,800.00	5,668.85	5,680.61	5,668.85	22.83	15.47	90.024	-270.00	18.14	989.22	956.55	32.67	30,282	
5,900.00	5,768.85	5,780.61	5,768.85	22.86	15.52	90.024	-270.00	18.14	989.22	956.45	32.76	30,194	
6,000.00	5,868.85	5,880.61	5,868.85	22.90	15.56	90.024	-270.00	18.14	989.22	956.36	32.86	30,106	
6,100.00	5,968.85	5,980.61	5,968.85	22.93	15.60	90.024	-270.00	18.14	989.22	956.26	32.95	30,018	
6,200.00	6,068.85	6,080.61	6,068.85	22.96	15.65	90.024	-270.00	18.14	989.22	956.17	33.05	29,931	
6,300.00	6,168.85	6,180.61	6,168.85	23.00	15.69	90.024	-270.00	18.14	989.22	956.07	33.15	29,843	

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



Phoenix

Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley BS Fed Com 301H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HRGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,400.00	6,268.85	6,280.61	6,268.85	23.03	15.73	90.024	-270.00	18.14	989.22	955.97	33.25	29.755	
6,500.00	6,368.85	6,380.61	6,368.85	23.07	15.78	90.024	-270.00	18.14	989.22	955.87	33.34	29.668	
6,600.00	6,468.85	6,480.61	6,468.85	23.10	15.82	90.024	-270.00	18.14	989.22	955.77	33.44	29.580	
6,700.00	6,568.85	6,580.61	6,568.85	23.13	15.87	90.024	-270.00	18.14	989.22	955.67	33.54	29.493	
6,800.00	6,668.85	6,680.61	6,668.85	23.17	15.92	90.024	-270.00	18.14	989.22	955.58	33.64	29.405	
6,900.00	6,768.85	6,780.61	6,768.85	23.20	15.96	90.024	-270.00	18.14	989.22	955.48	33.74	29.318	
7,000.00	6,868.85	6,880.61	6,868.85	23.24	16.01	90.024	-270.00	18.14	989.22	955.37	33.84	29.231	
7,100.00	6,968.85	6,980.61	6,968.85	23.28	16.05	90.024	-270.00	18.14	989.22	955.27	33.94	29.144	
7,200.00	7,068.85	7,080.88	7,069.05	23.31	16.01	89.887	-267.63	18.13	989.21	955.20	34.01	29.087	
7,220.10	7,088.95	7,100.91	7,088.95	23.32	15.98	89.761	-265.46	18.12	989.21	955.18	34.03	29.073	
7,300.00	7,168.85	7,178.33	7,164.88	23.35	15.83	88.900	-250.59	18.06	989.33	955.24	34.08	29.029	
7,400.00	7,268.85	7,267.73	7,249.10	23.38	15.64	87.181	-220.89	17.93	990.41	956.28	34.13	29.023	
7,500.00	7,368.85	7,346.34	7,318.56	23.42	15.45	85.066	-184.22	17.78	993.81	959.70	34.11	29.135	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 701H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HRGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	89.989	0.01	50.06	50.06				
100.00	100.00	100.00	100.00	0.53	0.53	89.989	0.01	50.06	50.06	48.99	1.07	46.956	
200.00	200.00	200.00	200.00	1.32	1.32	89.989	0.01	50.06	50.06	47.41	2.65	18.900	
300.00	300.00	300.00	300.00	1.80	1.80	89.989	0.01	50.06	50.06	46.46	3.60	13.912	
400.00	400.00	400.00	400.00	2.18	2.18	89.989	0.01	50.06	50.06	45.71	4.35	11.505	
500.00	500.00	500.00	500.00	2.50	2.50	89.989	0.01	50.06	50.06	45.06	5.00	10.017	
600.00	600.00	600.00	600.00	2.79	2.79	89.989	0.01	50.06	50.06	44.49	5.57	8.982	
700.00	700.00	700.00	700.00	3.05	3.05	89.989	0.01	50.06	50.06	43.96	6.10	8.207	
800.00	800.00	800.00	800.00	3.29	3.29	89.989	0.01	50.06	50.06	43.47	6.59	7.598	
900.00	900.00	900.00	900.00	3.52	3.52	89.989	0.01	50.06	50.06	43.01	7.05	7.104	
1,000.00	1,000.00	1,000.00	1,000.00	3.74	3.74	89.989	0.01	50.06	50.06	42.58	7.48	6.692	
1,100.00	1,100.00	1,100.00	1,100.00	3.95	3.95	89.989	0.01	50.06	50.06	42.17	7.89	6.341	
1,200.00	1,200.00	1,200.00	1,200.00	4.15	4.15	89.989	0.01	50.06	50.06	41.77	8.29	6.038	
1,300.00	1,300.00	1,300.00	1,300.00	4.34	4.34	89.989	0.01	50.06	50.06	41.39	8.67	5.773 CC	
1,400.00	1,399.98	1,401.54	1,401.52	4.62	4.62	-164.026	-0.88	48.49	50.20	41.00	9.20	5.455	
1,500.00	1,499.84	1,503.07	1,502.90	4.90	4.90	-162.633	-3.53	43.80	50.64	40.94	9.70	5.221 ES	
1,600.00	1,599.45	1,604.58	1,604.00	5.19	5.19	-160.369	-7.95	35.98	51.44	41.24	10.20	5.042	
1,700.00	1,698.70	1,706.04	1,704.68	5.50	5.51	-157.325	-14.12	25.05	52.68	41.97	10.70	4.921	
1,800.00	1,797.47	1,807.46	1,804.81	5.83	5.83	-153.635	-22.04	11.03	54.47	43.29	11.19	4.869 SF	
1,900.00	1,895.62	1,907.46	1,903.19	6.18	6.06	-150.549	-30.83	-4.54	58.03	46.39	11.64	4.984	
2,000.00	1,993.06	2,007.22	2,001.35	6.54	6.35	-149.431	-39.61	-20.07	64.71	52.50	12.20	5.303	
2,099.96	2,089.60	2,106.70	2,099.22	6.93	6.65	-149.884	-48.36	-35.57	74.38	61.54	12.84	5.794	
2,200.00	2,185.77	2,206.11	2,197.03	7.26	6.97	-150.890	-57.11	-51.05	85.59	72.11	13.47	6.352	
2,300.00	2,281.90	2,305.47	2,294.79	7.61	7.31	-151.663	-65.85	-66.53	96.80	82.67	14.14	6.848	
2,400.00	2,378.02	2,404.83	2,392.54	7.97	7.66	-152.275	-74.60	-82.00	108.04	93.21	14.83	7.287	
2,500.00	2,474.15	2,504.19	2,490.30	8.35	8.01	-152.772	-83.34	-97.48	119.28	103.74	15.54	7.677	
2,600.00	2,570.28	2,603.55	2,588.06	8.75	8.38	-153.184	-92.08	-112.96	130.53	114.26	16.27	8.024	
2,700.00	2,666.40	2,702.91	2,685.82	9.15	8.76	-153.530	-100.83	-128.43	141.78	124.77	17.02	8.333	
2,800.00	2,762.53	2,802.27	2,783.58	9.56	9.14	-153.825	-109.57	-143.91	153.04	135.26	17.78	8.608	
2,900.00	2,858.66	2,901.63	2,881.34	9.98	9.53	-154.079	-118.31	-159.39	164.31	145.75	18.56	8.854	
3,000.00	2,954.78	3,001.00	2,979.09	10.41	9.93	-154.301	-127.05	-174.86	175.57	156.23	19.35	9.075	
3,100.00	3,050.91	3,100.36	3,076.85	10.85	10.33	-154.497	-135.80	-190.34	186.84	166.69	20.15	9.274	
3,200.00	3,147.04	3,199.72	3,174.61	11.29	10.73	-154.670	-144.54	-205.81	198.11	177.15	20.96	9.454	
3,300.00	3,243.16	3,299.08	3,272.37	11.73	11.14	-154.824	-153.28	-221.29	209.38	187.61	21.77	9.616	
3,400.00	3,339.29	3,398.44	3,370.13	12.18	11.56	-154.963	-162.03	-236.77	220.65	198.05	22.60	9.763	
3,500.00	3,435.42	3,497.80	3,467.89	12.64	11.97	-155.088	-170.77	-252.24	231.93	208.50	23.43	9.898	
3,600.00	3,531.54	3,597.16	3,565.64	13.10	12.39	-155.201	-179.51	-267.72	243.20	218.93	24.27	10.020	
3,700.00	3,627.67	3,696.52	3,663.40	13.56	12.81	-155.305	-188.26	-283.19	254.48	229.36	25.11	10.133	
3,800.00	3,723.80	3,795.89	3,761.16	14.02	13.24	-155.399	-197.00	-298.67	265.76	239.79	25.96	10.236	
3,900.00	3,819.92	3,895.25	3,858.92	14.49	13.66	-155.486	-205.74	-314.15	277.03	250.22	26.82	10.330	
4,000.00	3,916.05	3,994.61	3,956.68	14.96	14.09	-155.567	-214.48	-329.62	288.31	260.64	27.67	10.418	
4,100.00	4,012.17	4,093.97	4,054.44	15.43	14.52	-155.641	-223.23	-345.10	299.59	271.05	28.54	10.499	
4,200.00	4,108.30	4,193.33	4,152.20	15.91	14.95	-155.709	-231.97	-360.57	310.87	281.47	29.40	10.574	
4,300.00	4,204.43	4,292.69	4,249.95	16.38	15.38	-155.773	-240.71	-376.05	322.15	291.88	30.27	10.643	
4,400.00	4,300.55	4,389.77	4,345.49	16.86	15.79	-155.843	-249.20	-391.08	333.52	302.42	31.10	10.724	
4,500.00	4,396.68	4,480.36	4,434.98	17.34	16.19	-156.120	-256.10	-403.29	346.72	314.80	31.93	10.860	
4,600.00	4,492.81	4,570.20	4,524.13	17.82	16.58	-156.650	-261.56	-412.96	362.42	329.68	32.75	11.068	
4,700.00	4,588.93	4,659.12	4,612.66	18.30	16.94	-157.388	-265.61	-420.12	380.64	347.09	33.55	11.347	
4,800.00	4,685.06	4,746.97	4,700.34	18.78	17.27	-158.286	-268.28	-424.85	401.39	367.07	34.31	11.698	
4,900.00	4,781.19	4,833.60	4,786.93	19.27	17.51	-159.299	-269.62	-427.22	424.69	389.70	35.00	12.135	
4,951.23	4,830.43	4,880.28	4,833.60	19.51	17.59	-159.886	-269.81	-427.55	437.64	402.31	35.33	12.388	
5,000.00	4,877.43	4,924.10	4,877.43	19.73	17.60	-160.500	-269.81	-427.55	449.95	414.37	35.58	12.645	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 701H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: C-MWD+HRGM													Offset Well Error: 0.00 usft
Rule Assigned:													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,974.44	5,021.12	4,974.44	20.23	17.64	-161.627	-269.81	-427.55	472.94	436.72	36.22	13.058	
5,200.00	5,072.24	5,118.92	5,072.24	20.71	17.68	-162.511	-269.81	-427.55	492.80	455.98	36.82	13.385	
5,300.00	5,170.71	5,217.39	5,170.71	21.18	17.72	-163.196	-269.81	-427.55	509.45	472.08	37.38	13.630	
5,400.00	5,269.73	5,316.41	5,269.73	21.63	17.76	-163.714	-269.81	-427.55	522.85	484.94	37.90	13.795	
5,500.00	5,369.17	5,415.85	5,369.17	22.05	17.80	-164.086	-269.81	-427.55	532.93	494.55	38.38	13.884	
5,600.00	5,468.92	5,515.60	5,468.92	22.43	17.84	-164.327	-269.81	-427.55	539.68	500.86	38.82	13.902	
5,700.00	5,568.85	5,615.53	5,568.85	22.76	17.88	-164.446	-269.81	-427.55	543.09	503.90	39.19	13.858	
5,751.18	5,620.03	5,666.71	5,620.03	22.82	17.90	90.023	-269.81	-427.55	543.53	504.25	39.28	13.838	
5,800.00	5,668.85	5,715.53	5,668.85	22.83	17.93	90.023	-269.81	-427.55	543.53	504.22	39.31	13.828	
5,900.00	5,768.85	5,815.53	5,768.85	22.86	17.97	90.023	-269.81	-427.55	543.53	504.14	39.38	13.801	
6,000.00	5,868.85	5,915.53	5,868.85	22.90	18.01	90.023	-269.81	-427.55	543.53	504.07	39.46	13.774	
6,100.00	5,968.85	6,015.53	5,968.85	22.93	18.05	90.023	-269.81	-427.55	543.53	503.99	39.54	13.747	
6,200.00	6,068.85	6,115.53	6,068.85	22.96	18.10	90.023	-269.81	-427.55	543.53	503.91	39.62	13.719	
6,300.00	6,168.85	6,215.53	6,168.85	23.00	18.14	90.023	-269.81	-427.55	543.53	503.83	39.70	13.692	
6,400.00	6,268.85	6,315.53	6,268.85	23.03	18.18	90.023	-269.81	-427.55	543.53	503.75	39.78	13.665	
6,500.00	6,368.85	6,415.53	6,368.85	23.07	18.23	90.023	-269.81	-427.55	543.53	503.67	39.86	13.637	
6,600.00	6,468.85	6,515.53	6,468.85	23.10	18.27	90.023	-269.81	-427.55	543.53	503.59	39.94	13.610	
6,700.00	6,568.85	6,615.53	6,568.85	23.13	18.32	90.023	-269.81	-427.55	543.53	503.51	40.02	13.582	
6,800.00	6,668.85	6,715.53	6,668.85	23.17	18.36	90.023	-269.81	-427.55	543.53	503.43	40.10	13.554	
6,900.00	6,768.85	6,815.53	6,768.85	23.20	18.41	90.023	-269.81	-427.55	543.53	503.34	40.18	13.527	
7,000.00	6,868.85	6,915.53	6,868.85	23.24	18.45	90.023	-269.81	-427.55	543.53	503.26	40.26	13.499	
7,100.00	6,968.85	7,015.53	6,968.85	23.28	18.50	90.023	-269.81	-427.55	543.53	503.18	40.35	13.471	
7,200.00	7,068.85	7,115.53	7,068.85	23.31	18.55	90.023	-269.81	-427.55	543.53	503.09	40.43	13.443	
7,300.00	7,168.85	7,215.53	7,168.85	23.35	18.59	90.023	-269.81	-427.55	543.53	503.01	40.52	13.415	
7,400.00	7,268.85	7,315.53	7,268.85	23.38	18.64	90.023	-269.81	-427.55	543.53	502.93	40.60	13.387	
7,500.00	7,368.85	7,415.53	7,368.85	23.42	18.69	90.023	-269.81	-427.55	543.53	502.84	40.68	13.359	
7,600.00	7,468.85	7,515.53	7,468.85	23.46	18.73	90.023	-269.81	-427.55	543.53	502.76	40.77	13.331	
7,700.00	7,568.85	7,615.53	7,568.85	23.49	18.78	90.023	-269.81	-427.55	543.53	502.67	40.86	13.303	
7,800.00	7,668.85	7,715.53	7,668.85	23.53	18.83	90.023	-269.81	-427.55	543.53	502.58	40.94	13.275	
7,900.00	7,768.85	7,815.53	7,768.85	23.57	18.87	90.023	-269.81	-427.55	543.53	502.50	41.03	13.247	
7,958.19	7,827.04	7,873.72	7,827.04	23.58	18.90	90.023	-269.81	-427.55	543.53	502.45	41.07	13.234	
8,000.00	7,868.81	7,915.49	7,868.81	23.57	18.92	90.423	-269.81	-427.55	543.53	502.46	41.08	13.231	
8,050.00	7,918.46	7,965.13	7,918.46	23.54	18.95	91.024	-269.81	-427.55	543.61	502.57	41.04	13.246	
8,100.00	7,967.40	8,014.08	7,967.40	23.51	18.97	92.039	-269.81	-427.55	543.89	502.94	40.94	13.284	
8,150.00	8,015.29	8,061.96	8,015.29	23.47	18.99	93.412	-269.81	-427.55	544.60	503.81	40.79	13.351	
8,200.00	8,061.73	8,108.41	8,061.73	23.43	19.02	95.062	-269.81	-427.55	546.08	505.49	40.58	13.456	
8,250.00	8,106.40	8,153.07	8,106.40	23.39	19.04	96.889	-269.81	-427.55	548.70	508.39	40.31	13.611	
8,300.00	8,148.93	8,195.61	8,148.93	23.35	19.06	98.779	-269.81	-427.55	552.91	512.93	39.98	13.830	
8,350.00	8,189.02	8,235.70	8,189.02	23.33	19.08	100.608	-269.81	-427.55	559.16	519.58	39.58	14.126	
8,400.00	8,226.35	8,273.03	8,226.35	23.31	19.10	102.251	-269.81	-427.55	567.89	528.75	39.13	14.512	
8,450.00	8,260.64	8,307.32	8,260.64	23.31	19.11	103.585	-269.81	-427.55	579.47	540.84	38.63	15.001	
8,500.00	8,291.63	8,338.31	8,291.63	23.32	19.13	104.498	-269.81	-427.55	594.21	556.12	38.09	15.600	
8,550.00	8,319.09	8,365.77	8,319.09	23.35	19.14	104.882	-269.81	-427.55	612.28	574.75	37.53	16.316	
8,600.00	8,342.80	8,389.48	8,342.80	23.41	19.15	104.637	-269.81	-427.55	633.75	596.79	36.96	17.148	
8,650.00	8,362.59	8,409.27	8,362.59	23.49	19.16	103.666	-269.81	-427.55	658.53	622.13	36.40	18.093	
8,700.00	8,378.30	8,424.98	8,378.30	23.60	19.17	101.875	-269.81	-427.55	686.44	650.58	35.86	19.143	
8,750.00	8,389.82	8,436.49	8,389.82	23.75	19.18	99.180	-269.81	-427.55	717.18	681.83	35.35	20.288	
8,800.00	8,397.05	8,443.73	8,397.05	23.92	19.18	95.513	-269.81	-427.55	750.39	715.51	34.88	21.515	
8,850.00	8,399.94	8,446.62	8,399.94	24.12	19.18	90.855	-269.81	-427.55	785.62	751.18	34.44	22.808	
8,858.19	8,400.00	8,446.68	8,400.00	24.16	19.18	90.000	-269.81	-427.55	791.56	757.18	34.38	23.026	
8,900.00	8,400.00	8,446.68	8,400.00	24.35	19.18	90.000	-269.81	-427.55	822.45	788.40	34.05	24.151	
9,000.00	8,400.00	8,446.68	8,400.00	24.87	19.18	90.000	-269.81	-427.55	899.93	866.51	33.43	26.922	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 701H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM		Reference Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,100.00	8,400.00	8,446.68	8,400.00	25.46	19.18	90.000	-269.81	-427.55	981.49	948.53	32.96	29.778		



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 702H - OH - Plan 1 11-02-22												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HRGM												Offset Well Error:	0.00 usft
Rule Assigned:												Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	89.994	0.01	100.12	100.12				
100.00	100.00	100.00	100.00	0.53	0.53	89.994	0.01	100.12	100.12	99.05	1.07	93.913	
200.00	200.00	200.00	200.00	1.32	1.32	89.994	0.01	100.12	100.12	97.47	2.65	37.799	
300.00	300.00	300.00	300.00	1.80	1.80	89.994	0.01	100.12	100.12	96.52	3.60	27.824	
400.00	400.00	400.00	400.00	2.18	2.18	89.994	0.01	100.12	100.12	95.77	4.35	23.009	
500.00	500.00	500.00	500.00	2.50	2.50	89.994	0.01	100.12	100.12	95.12	5.00	20.035	
600.00	600.00	600.00	600.00	2.79	2.79	89.994	0.01	100.12	100.12	94.55	5.57	17.963	
700.00	700.00	700.00	700.00	3.05	3.05	89.994	0.01	100.12	100.12	94.02	6.10	16.413	
800.00	800.00	800.00	800.00	3.29	3.29	89.994	0.01	100.12	100.12	93.53	6.59	15.196	
900.00	900.00	900.00	900.00	3.52	3.52	89.994	0.01	100.12	100.12	93.07	7.05	14.207	
1,000.00	1,000.00	1,000.00	1,000.00	3.74	3.74	89.994	0.01	100.12	100.12	92.64	7.48	13.383	
1,100.00	1,100.00	1,100.00	1,100.00	3.95	3.95	89.994	0.01	100.12	100.12	92.23	7.89	12.682	
1,200.00	1,200.00	1,200.00	1,200.00	4.15	4.15	89.994	0.01	100.12	100.12	91.83	8.29	12.076	
1,300.00	1,300.00	1,300.00	1,300.00	4.34	4.34	89.994	0.01	100.12	100.12	91.45	8.67	11.545 CC, ES	
1,400.00	1,399.98	1,397.18	1,397.16	4.62	4.61	-164.178	-0.98	101.44	103.16	93.98	9.18	11.238	
1,500.00	1,499.84	1,493.81	1,493.67	4.90	4.87	-163.340	-3.91	105.37	112.29	102.62	9.66	11.619	
1,600.00	1,599.45	1,589.36	1,588.87	5.19	5.14	-162.200	-8.72	111.82	127.47	117.30	10.16	12.541	
1,700.00	1,698.70	1,683.30	1,682.16	5.50	5.43	-160.978	-15.30	120.64	148.64	137.96	10.68	13.916	
1,800.00	1,797.47	1,777.77	1,775.63	5.83	5.62	-159.874	-23.47	131.59	175.30	164.16	11.14	15.736	
1,900.00	1,895.62	1,873.12	1,869.94	6.18	5.85	-159.274	-31.89	142.88	205.38	193.71	11.67	17.592	
2,000.00	1,993.06	1,967.45	1,963.23	6.54	6.11	-159.057	-40.22	154.06	238.57	226.32	12.25	19.478	
2,099.96	2,089.60	2,060.59	2,055.35	6.93	6.39	-159.082	-48.45	165.09	274.80	261.95	12.85	21.389	
2,200.00	2,185.77	2,153.21	2,146.95	7.26	6.67	-159.435	-56.64	176.06	312.58	299.17	13.42	23.300	
2,300.00	2,281.90	2,245.79	2,238.52	7.61	6.97	-159.712	-64.81	187.02	350.36	336.36	14.01	25.014	
2,400.00	2,378.02	2,338.37	2,330.08	7.97	7.28	-159.935	-72.99	197.98	388.15	373.52	14.62	26.544	
2,500.00	2,474.15	2,430.94	2,421.64	8.35	7.59	-160.119	-81.17	208.95	425.93	410.67	15.26	27.912	
2,600.00	2,570.28	2,523.52	2,513.20	8.75	7.92	-160.273	-89.35	219.91	463.72	447.81	15.92	29.136	
2,700.00	2,666.40	2,616.10	2,604.76	9.15	8.25	-160.403	-97.53	230.88	501.52	484.93	16.59	30.232	
2,800.00	2,762.53	2,708.68	2,696.32	9.56	8.59	-160.515	-105.71	241.84	539.31	522.04	17.28	31.216	
2,900.00	2,858.66	2,801.26	2,787.89	9.98	8.93	-160.613	-113.89	252.80	577.11	559.13	17.98	32.102	
3,000.00	2,954.78	2,893.83	2,879.45	10.41	9.28	-160.698	-122.07	263.77	614.91	596.22	18.69	32.901	
3,100.00	3,050.91	2,986.41	2,971.01	10.85	9.64	-160.774	-130.24	274.73	652.71	633.29	19.41	33.623	
3,200.00	3,147.04	3,078.99	3,062.57	11.29	9.99	-160.841	-138.42	285.70	690.51	670.36	20.14	34.277	
3,300.00	3,243.16	3,171.57	3,154.13	11.73	10.36	-160.902	-146.60	296.66	728.31	707.42	20.88	34.872	
3,400.00	3,339.29	3,264.14	3,245.69	12.18	10.72	-160.956	-154.78	307.62	766.11	744.48	21.63	35.415	
3,500.00	3,435.42	3,356.72	3,337.25	12.64	11.09	-161.005	-162.96	318.59	803.91	781.52	22.39	35.910	
3,600.00	3,531.54	3,449.30	3,428.82	13.10	11.46	-161.050	-171.14	329.55	841.71	818.57	23.15	36.364	
3,700.00	3,627.67	3,541.88	3,520.38	13.56	11.83	-161.091	-179.32	340.52	879.52	855.60	23.91	36.781	
3,800.00	3,723.80	3,634.45	3,611.94	14.02	12.21	-161.129	-187.50	351.48	917.32	892.64	24.68	37.164	
3,900.00	3,819.92	3,727.03	3,703.50	14.49	12.58	-161.163	-195.67	362.44	955.12	929.67	25.46	37.518	
4,000.00	3,916.05	3,819.61	3,795.06	14.96	12.96	-161.195	-203.85	373.41	992.93	966.69	26.24	37.845	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 801H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HRGM													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	89.359	0.28	25.03	25.03				
100.00	100.00	100.00	100.00	0.53	0.53	89.359	0.28	25.03	25.03	23.97	1.07	23.480	
200.00	200.00	200.00	200.00	1.32	1.32	89.359	0.28	25.03	25.03	22.38	2.65	9.450	
300.00	300.00	300.00	300.00	1.80	1.80	89.359	0.28	25.03	25.03	21.43	3.60	6.956	
400.00	400.00	400.00	400.00	2.18	2.18	89.359	0.28	25.03	25.03	20.68	4.35	5.753	
500.00	500.00	500.00	500.00	2.50	2.50	89.359	0.28	25.03	25.03	20.03	5.00	5.009	
600.00	600.00	600.00	600.00	2.79	2.79	89.359	0.28	25.03	25.03	19.46	5.57	4.491	
700.00	700.00	700.00	700.00	3.05	3.05	89.359	0.28	25.03	25.03	18.93	6.10	4.104	
800.00	800.00	800.00	800.00	3.29	3.29	89.359	0.28	25.03	25.03	18.44	6.59	3.799	
900.00	900.00	900.00	900.00	3.52	3.52	89.359	0.28	25.03	25.03	17.98	7.05	3.552	
1,000.00	1,000.00	1,000.00	1,000.00	3.74	3.74	89.359	0.28	25.03	25.03	17.55	7.48	3.346	
1,100.00	1,100.00	1,100.00	1,100.00	3.95	3.95	89.359	0.28	25.03	25.03	17.14	7.89	3.171	
1,200.00	1,200.00	1,200.00	1,200.00	4.15	4.15	89.359	0.28	25.03	25.03	16.74	8.29	3.019	
1,300.00	1,300.00	1,300.00	1,300.00	4.34	4.34	89.359	0.28	25.03	25.03	16.36	8.67	2.887	
1,400.00	1,399.98	1,400.88	1,400.86	4.62	4.62	-166.260	0.30	23.25	24.96	15.73	9.23	2.703	
1,500.00	1,499.84	1,501.74	1,501.57	4.90	4.91	-169.693	0.37	17.93	24.82	15.04	9.78	2.538	
1,572.53	1,572.12	1,574.88	1,574.46	5.11	5.13	-173.643	0.45	11.85	24.76	14.57	10.19	2.430	CC
1,600.00	1,599.45	1,602.57	1,602.01	5.19	5.21	-175.457	0.48	9.07	24.77	14.43	10.34	2.395	
1,700.00	1,698.70	1,703.36	1,702.02	5.50	5.52	176.575	0.64	-3.32	25.12	14.21	10.91	2.303	ES
1,800.00	1,797.47	1,804.08	1,801.48	5.83	5.86	166.912	0.84	-19.20	26.24	14.82	11.43	2.296	SF
1,900.00	1,895.62	1,904.72	1,900.24	6.18	6.21	156.523	1.08	-38.55	28.51	16.65	11.86	2.404	
2,000.00	1,993.06	2,005.27	1,998.17	6.54	6.59	146.531	1.37	-61.34	32.17	19.96	12.22	2.634	
2,099.96	2,089.60	2,105.67	2,095.09	6.93	6.97	137.745	1.70	-87.51	37.31	24.77	12.54	2.976	
2,200.00	2,185.77	2,205.52	2,190.87	7.26	7.27	130.266	2.05	-115.74	43.25	30.44	12.81	3.376	
2,300.00	2,281.90	2,305.21	2,286.47	7.61	7.62	124.614	2.41	-143.98	49.73	36.51	13.21	3.763	
2,400.00	2,378.02	2,404.89	2,382.07	7.97	7.99	120.294	2.76	-172.22	56.58	42.89	13.69	4.133	
2,500.00	2,474.15	2,504.58	2,477.67	8.35	8.38	116.920	3.12	-200.46	63.68	49.45	14.22	4.478	
2,600.00	2,570.28	2,604.26	2,573.27	8.75	8.77	114.230	3.47	-228.70	70.95	56.15	14.80	4.794	
2,700.00	2,666.40	2,703.95	2,668.87	9.15	9.18	112.043	3.83	-256.94	78.35	62.94	15.41	5.083	
2,800.00	2,762.53	2,803.63	2,764.47	9.56	9.59	110.236	4.19	-285.18	85.85	69.79	16.06	5.346	
2,900.00	2,858.66	2,903.32	2,860.07	9.98	10.02	108.720	4.54	-313.42	93.41	76.68	16.73	5.584	
3,000.00	2,954.78	3,003.00	2,955.68	10.41	10.45	107.432	4.90	-341.66	101.03	83.62	17.42	5.801	
3,100.00	3,050.91	3,102.69	3,051.28	10.85	10.89	106.325	5.25	-369.90	108.70	90.57	18.13	5.997	
3,200.00	3,147.04	3,202.37	3,146.88	11.29	11.33	105.364	5.61	-398.14	116.40	97.55	18.85	6.176	
3,300.00	3,243.16	3,302.06	3,242.48	11.73	11.78	104.522	5.96	-426.38	124.13	104.54	19.58	6.339	
3,400.00	3,339.29	3,401.75	3,338.08	12.18	12.23	103.779	6.32	-454.62	131.88	111.55	20.33	6.487	
3,500.00	3,435.42	3,501.43	3,433.68	12.64	12.69	103.119	6.67	-482.86	139.65	118.57	21.09	6.623	
3,600.00	3,531.54	3,601.12	3,529.28	13.10	13.15	102.528	7.03	-511.10	147.44	125.59	21.85	6.748	
3,700.00	3,627.67	3,700.80	3,624.88	13.56	13.61	101.997	7.39	-539.34	155.24	132.62	22.62	6.862	
3,800.00	3,723.80	3,800.49	3,720.48	14.02	14.08	101.517	7.74	-567.58	163.06	139.65	23.40	6.968	
3,900.00	3,819.92	3,900.17	3,816.08	14.49	14.55	101.080	8.10	-595.82	170.88	146.69	24.19	7.065	
4,000.00	3,916.05	3,999.86	3,911.69	14.96	15.02	100.682	8.45	-624.06	178.71	153.74	24.98	7.155	
4,100.00	4,012.17	4,099.54	4,007.29	15.43	15.49	100.317	8.81	-652.30	186.56	160.78	25.77	7.238	
4,200.00	4,108.30	4,199.77	4,103.75	15.91	15.97	100.351	9.15	-679.48	194.29	167.74	26.55	7.318	
4,300.00	4,204.43	4,300.01	4,201.11	16.38	16.46	101.364	9.45	-703.31	201.73	174.42	27.31	7.388	
4,400.00	4,300.55	4,399.93	4,298.93	16.86	16.94	103.259	9.71	-723.67	209.06	181.02	28.04	7.456	
4,500.00	4,396.68	4,499.29	4,396.85	17.34	17.40	105.927	9.92	-740.51	216.59	187.82	28.76	7.530	
4,600.00	4,492.81	4,597.86	4,494.50	17.82	17.84	109.258	10.09	-753.86	224.74	195.24	29.51	7.616	
4,700.00	4,588.93	4,695.41	4,591.54	18.30	18.24	113.128	10.21	-763.76	234.04	203.74	30.30	7.724	
4,800.00	4,685.06	4,791.74	4,687.65	18.78	18.61	117.397	10.29	-770.28	245.02	213.87	31.15	7.865	
4,900.00	4,781.19	4,886.66	4,782.51	19.27	18.92	121.913	10.33	-773.54	258.21	226.14	32.08	8.050	
4,951.23	4,830.43	4,934.68	4,830.52	19.51	19.00	124.273	10.34	-774.00	265.99	233.45	32.54	8.174	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 801H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: O-MWD+HRGM													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,877.43	4,981.58	4,877.43	19.73	19.02	126.598	10.34	-774.00	273.74	240.75	32.99	8.298	
5,100.00	4,974.44	5,078.59	4,974.44	20.23	19.05	130.626	10.34	-774.00	289.15	255.25	33.90	8.530	
5,200.00	5,072.24	5,176.40	5,072.24	20.71	19.10	133.787	10.34	-774.00	303.31	268.60	34.71	8.738	
5,300.00	5,170.71	5,274.86	5,170.71	21.18	19.14	136.224	10.34	-774.00	315.72	280.28	35.44	8.909	
5,400.00	5,269.73	5,373.88	5,269.73	21.63	19.18	138.052	10.34	-774.00	326.00	289.92	36.07	9.037	
5,500.00	5,369.17	5,473.32	5,369.17	22.05	19.23	139.356	10.34	-774.00	333.90	297.28	36.62	9.117	
5,600.00	5,468.92	5,573.07	5,468.92	22.43	19.27	140.196	10.34	-774.00	339.27	302.18	37.08	9.149	
5,700.00	5,568.85	5,673.00	5,568.85	22.76	19.32	140.609	10.34	-774.00	341.99	304.55	37.44	9.135	
5,751.18	5,620.03	5,724.18	5,620.03	22.82	19.34	35.147	10.34	-774.00	342.34	304.82	37.52	9.123	
5,800.00	5,668.85	5,773.00	5,668.85	22.83	19.36	35.147	10.34	-774.00	342.34	304.78	37.56	9.114	
5,900.00	5,768.85	5,873.00	5,768.85	22.86	19.41	35.147	10.34	-774.00	342.34	304.68	37.66	9.091	
6,000.00	5,868.85	5,973.00	5,868.85	22.90	19.45	35.147	10.34	-774.00	342.34	304.59	37.75	9.068	
6,100.00	5,968.85	6,073.00	5,968.85	22.93	19.50	35.147	10.34	-774.00	342.34	304.49	37.85	9.045	
6,200.00	6,068.85	6,173.00	6,068.85	22.96	19.54	35.147	10.34	-774.00	342.34	304.39	37.95	9.022	
6,300.00	6,168.85	6,273.00	6,168.85	23.00	19.59	35.147	10.34	-774.00	342.34	304.30	38.04	8.998	
6,400.00	6,268.85	6,373.00	6,268.85	23.03	19.64	35.147	10.34	-774.00	342.34	304.20	38.14	8.975	
6,500.00	6,368.85	6,473.00	6,368.85	23.07	19.68	35.147	10.34	-774.00	342.34	304.10	38.24	8.952	
6,600.00	6,468.85	6,573.00	6,468.85	23.10	19.73	35.147	10.34	-774.00	342.34	304.00	38.34	8.929	
6,700.00	6,568.85	6,673.00	6,568.85	23.13	19.78	35.147	10.34	-774.00	342.34	303.90	38.44	8.906	
6,800.00	6,668.85	6,773.00	6,668.85	23.17	19.83	35.147	10.34	-774.00	342.34	303.80	38.54	8.883	
6,900.00	6,768.85	6,873.00	6,768.85	23.20	19.87	35.147	10.34	-774.00	342.34	303.70	38.64	8.860	
7,000.00	6,868.85	6,973.00	6,868.85	23.24	19.92	35.147	10.34	-774.00	342.34	303.60	38.74	8.837	
7,100.00	6,968.85	7,073.00	6,968.85	23.28	19.97	35.147	10.34	-774.00	342.34	303.50	38.84	8.814	
7,200.00	7,068.85	7,173.00	7,068.85	23.31	20.02	35.147	10.34	-774.00	342.34	303.40	38.94	8.791	
7,300.00	7,168.85	7,273.00	7,168.85	23.35	20.07	35.147	10.34	-774.00	342.34	303.30	39.04	8.768	
7,400.00	7,268.85	7,373.00	7,268.85	23.38	20.11	35.147	10.34	-774.00	342.34	303.19	39.15	8.745	
7,500.00	7,368.85	7,473.00	7,368.85	23.42	20.16	35.147	10.34	-774.00	342.34	303.09	39.25	8.722	
7,600.00	7,468.85	7,573.00	7,468.85	23.46	20.21	35.147	10.34	-774.00	342.34	302.99	39.35	8.699	
7,700.00	7,568.85	7,673.00	7,568.85	23.49	20.26	35.147	10.34	-774.00	342.34	302.89	39.46	8.677	
7,800.00	7,668.85	7,773.00	7,668.85	23.53	20.31	35.147	10.34	-774.00	342.34	302.78	39.56	8.654	
7,900.00	7,768.85	7,873.00	7,768.85	23.57	20.36	35.147	10.34	-774.00	342.34	302.68	39.66	8.631	
7,958.19	7,827.04	7,931.20	7,827.04	23.58	20.39	35.147	10.34	-774.00	342.34	302.63	39.71	8.620	
8,000.00	7,868.81	7,972.96	7,868.81	23.57	20.41	35.607	10.34	-774.00	341.10	301.36	39.74	8.582	
8,050.00	7,918.46	8,022.61	7,918.46	23.54	20.43	36.463	10.34	-774.00	336.38	296.59	39.79	8.453	
8,100.00	7,967.40	8,071.56	7,967.40	23.51	20.46	38.009	10.34	-774.00	328.26	288.37	39.90	8.228	
8,150.00	8,015.29	8,119.44	8,015.29	23.47	20.48	40.325	10.34	-774.00	316.95	276.88	40.07	7.910	
8,200.00	8,061.73	8,165.89	8,061.73	23.43	20.51	43.522	10.34	-774.00	302.76	262.43	40.33	7.508	
8,250.00	8,106.40	8,210.55	8,106.40	23.39	20.53	47.732	10.34	-774.00	286.17	245.49	40.68	7.034	
8,300.00	8,148.93	8,253.08	8,148.93	23.35	20.55	53.069	10.34	-774.00	267.86	226.70	41.16	6.508	
8,350.00	8,189.02	8,293.17	8,189.02	23.33	20.57	59.563	10.34	-774.00	248.77	207.00	41.76	5.957	
8,400.00	8,226.35	8,330.50	8,226.35	23.31	20.59	67.054	10.34	-774.00	230.22	187.74	42.47	5.420	
8,450.00	8,260.64	8,364.79	8,260.64	23.31	20.61	75.105	10.34	-774.00	214.03	170.83	43.20	4.954	
8,500.00	8,291.63	8,395.79	8,291.63	23.32	20.62	83.023	10.34	-774.00	202.54	158.78	43.75	4.629	
8,549.63	8,318.90	8,423.06	8,318.90	23.35	20.64	90.000	10.34	-774.00	198.25	154.42	43.83	4.523	
8,550.00	8,319.09	8,423.24	8,319.09	23.35	20.64	90.047	10.34	-774.00	198.25	154.42	43.83	4.523	
8,600.00	8,342.80	8,446.96	8,342.80	23.41	20.65	95.561	10.34	-774.00	203.14	159.89	43.25	4.697	
8,650.00	8,362.59	8,466.74	8,362.59	23.49	20.66	99.188	10.34	-774.00	217.81	175.68	42.13	5.169	
8,700.00	8,378.30	8,482.45	8,378.30	23.60	20.67	100.720	10.34	-774.00	241.36	200.53	40.83	5.912	
8,750.00	8,389.82	8,493.97	8,389.82	23.75	20.67	100.005	10.34	-774.00	272.05	232.44	39.62	6.867	
8,800.00	8,397.05	8,501.20	8,397.05	23.92	20.68	96.876	10.34	-774.00	308.04	269.41	38.63	7.975	
8,850.00	8,399.94	8,504.09	8,399.94	24.12	20.68	91.181	10.34	-774.00	347.72	309.86	37.86	9.185	
8,858.19	8,400.00	8,504.15	8,400.00	24.16	20.68	90.000	10.34	-774.00	354.48	316.73	37.75	9.390	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Offset Design: Ripley Fed Com Pad - Ripley WC Fed Com 801H - OH - Plan 1 11-02-22													Offset Site Error: 0.00 usft
Survey Program: C-MWD+HRGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,900.00	8,400.00	8,504.15	8,400.00	24.35	20.68	90,000	10.34	-774.00	389.84	352.56	37.28	10,458	
9,000.00	8,400.00	8,504.15	8,400.00	24.87	20.68	90,000	10.34	-774.00	478.65	442.13	36.53	13,104	
9,100.00	8,400.00	8,504.15	8,400.00	25.46	20.68	90,000	10.34	-774.00	571.18	535.08	36.10	15,823	
9,200.00	8,400.00	8,504.15	8,400.00	26.10	20.68	90,000	10.34	-774.00	665.86	630.02	35.84	18,578	
9,300.00	8,400.00	8,504.15	8,400.00	26.80	20.68	90,000	10.34	-774.00	761.91	726.23	35.68	21,352	
9,400.00	8,400.00	8,504.15	8,400.00	27.54	20.68	90,000	10.34	-774.00	858.86	823.28	35.58	24,136	
9,500.00	8,400.00	8,504.15	8,400.00	28.33	20.68	90,000	10.34	-774.00	956.44	920.92	35.52	26,927	

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB @ 2978.60usft (Cactu 169)

Offset Depths are relative to Offset Datum

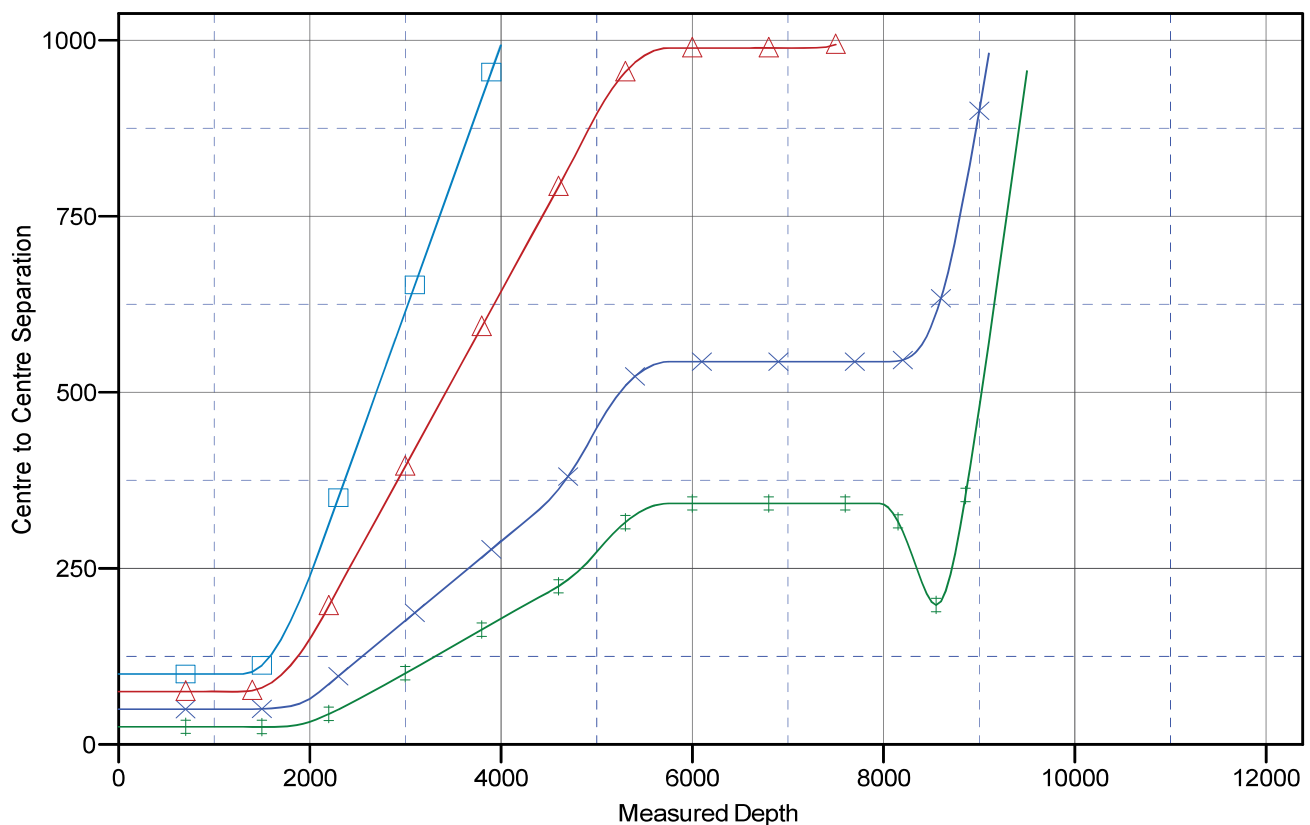
Central Meridian is 104° 19' 60.000000 W

Coordinates are relative to: Ripley BS Fed Com 501H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 300

Grid Convergence at Surface is: 0.149°

Ladder Plot



LEGEND

Ripley WC Red Com 701H, OH, Plan 1 11-02-22 V0
 Ripley WC Red Com 702H, OH, Plan 1 11-02-22 V0
 Ripley BS FedCom 301H, OH, Plan 1 11-02-22 V0

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



Phoenix Anticollision Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Ripley BS Fed Com 501H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	RKB @ 2978.60usft (Cactu 169)
Reference Site:	Ripley Fed Com Pad	MD Reference:	RKB @ 2978.60usft (Cactu 169)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Ripley BS Fed Com 501H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA Compass
Reference Design:	Plan 1 11-02-22	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB @ 2978.60usft (Cactu 169)

Offset Depths are relative to Offset Datum

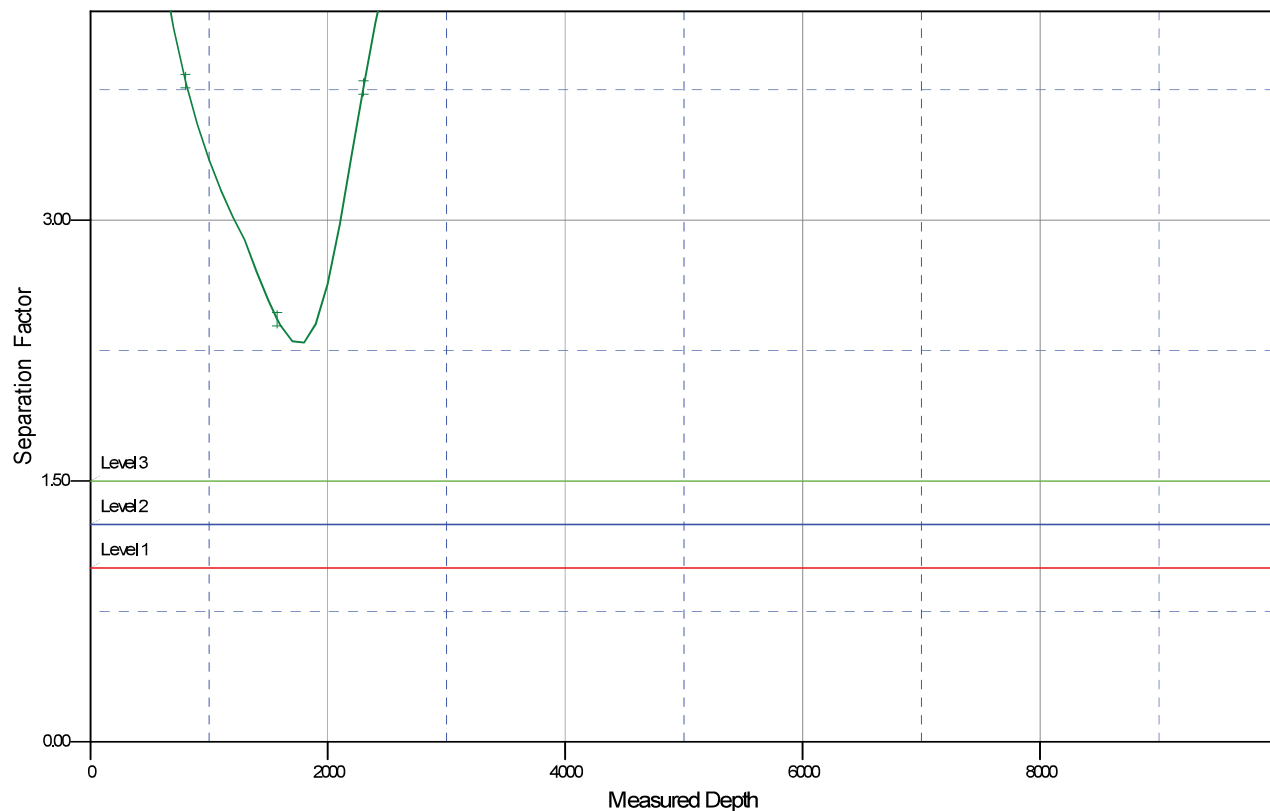
Central Meridian is 104° 19' 60.000000 W

Coordinates are relative to: Ripley BS Fed Com 501H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 300

Grid Convergence at Surface is: 0.149°

Separation Factor Plot



LEGEND

Ripley WC Fed Com 701H, OH, Plan 111-02-22 V0
 Ripley WC Fed Com 801H, OH, Plan 111-02-22 V0
 Ripley WC Fed Com 702H, OH, Plan 111-02-22 V0
 Ripley BS FedCom 501H, OH, Plan 11-02-22 V0

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 157723

COMMENTS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 157723
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
dmcclure	Defining well is 30-015-47621 RIPLEY BS FEDERAL COM #301H	9/13/2023

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1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 157723

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 157723
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	None	9/13/2023