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

Sundry Print Report

06/26/2025

Well Name: MONGO 25 FED COM

Well Location: T24S / R29E / SEC 30 / LOT 02 / 32.1896764 / -104.031512

County or Parish/State: EDDY / NM

Well Number: 502H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM107373

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: 3R OPERATING LLC

Notice of Intent

Sundry ID: 2850860

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/05/2025

Time Sundry Submitted: 10:35

Date proposed operation will begin: 05/05/2025

Procedure Description: SHL change from LOT 02 / 2215FNL / 155FWL / LAT 32.1896764 / Long -104.031512 to LOT 2 / 2200 FNL / 160 FWL / LAT 32.1897175 / Long -104.0314963 BHL change from 1360 FNL / 100 FWL / LAT 32.1920915 / LONG -104.0491064 to 1682 FNL / 100 FWL LAT 32.1912065 / LONG -104.0491064 LTP change from 1360 FNL / 100 FWL / LAT 32.1920915 / LONG -104.0491064 to 1682 FNL, 100 FWL / LAT 32.1912065 / LONG -104.0491090 TVD change from 8,430 to 8,310 MD change from 14,014 to 13,594 Production casing cement volume changes (detailed in attachment) Production casing depth changes (details in attachment) Updated directional plan (details in attachments)

NOI Attachments

Procedure Description

APD_Change_Sundry_Submittal__Mongo_502H_050525_20250623150746.pdf

Well Name: MONGO 25 FED COM

Well Location: T24S / R29E / SEC 30 / LOT 02 / 32.1896764 / -104.031512

County or Parish/State: EDDY / NM

Well Number: 502H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM107373

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: 3R OPERATING LLC

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: AUSTIN TRAMELL

Signed on: JUN 23, 2025 03:08 PM

Name: 3R OPERATING LLC

Title: Director Environmental and Regulatory

Street Address: PO BOX 692229

City: HOUSTON **State:** TX

Phone: (832) 810-1037

Email address: ATRAMELL@3ROPERATING.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 06/26/2025

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

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

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

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

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

Additional Information

Location of Well

0. SHL: LOT 02 / 2215 FNL / 155 FWL / TWSP: 24S / RANGE: 29E / SECTION: 30 / LAT: 32.1896764 / LONG: -104.031512 (TVD: 0 feet, MD: 0 feet)

PPP: SENE / 1360 FNL / 100 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1920271 / LONG: -104.0323671 (TVD: 8430 feet, MD: 8835 feet)

PPP: SWNE / 1360 FNL / 1365 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.192043 / LONG: -104.0364547 (TVD: 8430 feet, MD: 10100 feet)

BHL: SWNW / 1360 FNL / 100 FWL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1920915 / LONG: -104.0491064 (TVD: 8430 feet, MD: 14014 feet)

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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-015-56625	64450	WILLOW LAKE; BONE SPRING	
Property Code	Property Name		Well Number
	MONGO 25 FED COM		502H
OGRID No. 331569	Operator Name	3R OPERATING, LLC	Ground Level Elevation 2925.0
Surface Owner: ☐State ☐Fee ☐Tribal ☒Federal		Mineral Owner: ☐State ☐Fee ☐Tribal ☒Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	30	24 S	29 E	2	2200 NORTH	160 WEST	32.1897175°N	104.0314963°W	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	25	24 S	28 E		1682 NORTH	100 WEST	32.1912065°N	104.0491064°W	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
160	Infill	30-015-56624	Y	C
Order Numbers. NSP pending with NMOCD			Well setbacks are under Common Ownership: ☒Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
H	25	24 S	28 E		1682 NORTH	50 EAST	32.1911415°N	104.0321938°W	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
H	25	24 S	28 E		1682 NORTH	100 EAST	32.1911421°N	104.0323554°W	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	25	24 S	28 E		1682 NORTH	100 WEST	32.1912065°N	104.0491090°W	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒Horizontal ☐Vertical	Ground Floor Elevation: N/A
Y		

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best ofmy knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest run leased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order here to fore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Austin Tramell 05/05/2025

Signature Date

Austin Tramell

Printed Name

atramell@3roperating.com

Email Address

SURVEYOR CERTIFICATIONS

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

Signature and Seal of Professional Surveyor

FILIMON F. JARAMILLO

CertificateNumber	Dateof Survey
PLS 12797	MARCH 31, 2025 SURVEY NO. 10330B

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

ACREAGE DEDICATION PLATS

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

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

MONGO 25 FED COM 502H
EL. = 2925.5

LEGEND
SECTION LINE
QUARTER LINE
LEASE LINE
WELL PATH

GEODETIC COORDINATES
NAD 83 NMSP EAST
SURFACE LOCATION
2200' FNL, 160' FWL
N.=432884.77
E.=634710.39
LAT.=32.1897175°N
LONG.=104.0314963°W

KICK OFF POINT
1682' FNL, 50' FEL
N.=433402.17
E.=634493.17
LAT.=32.1911415°N
LONG.=104.0321938°W

FIRST TAKE POINT
1682' FNL, 100' FEL
N.=433402.26
E.=634443.17
LAT.=32.1911421°N
LONG.=104.0323554°W

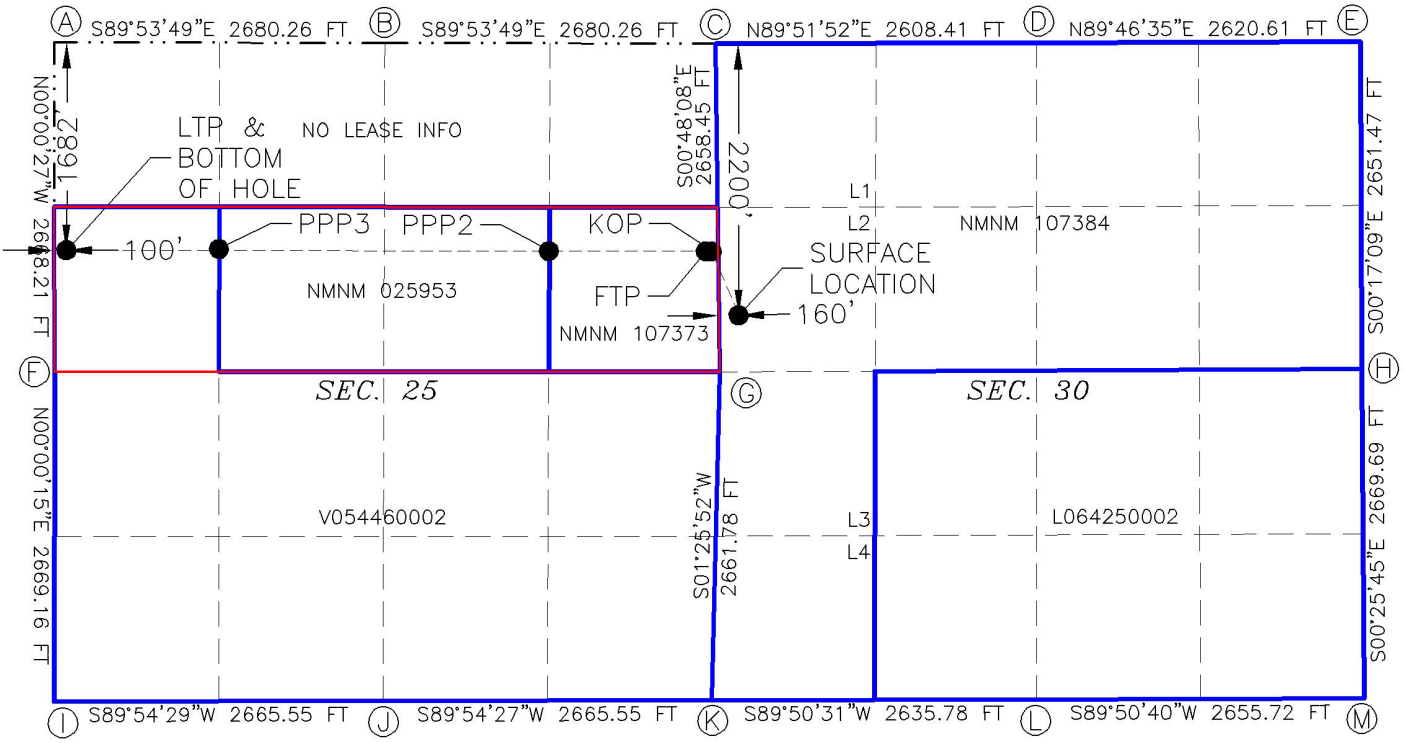
LAST TAKE POINT
1682' FNL, 100' FWL
N.=433411.59
E.=629260.47
LAT.=32.1912065°N
LONG.=104.0491090°W

BOTTOM OF HOLE
1682' FNL, 100' FWL
N.=433411.59
E.=629260.47
LAT.=32.1912065°N
LONG.=104.0491090°W

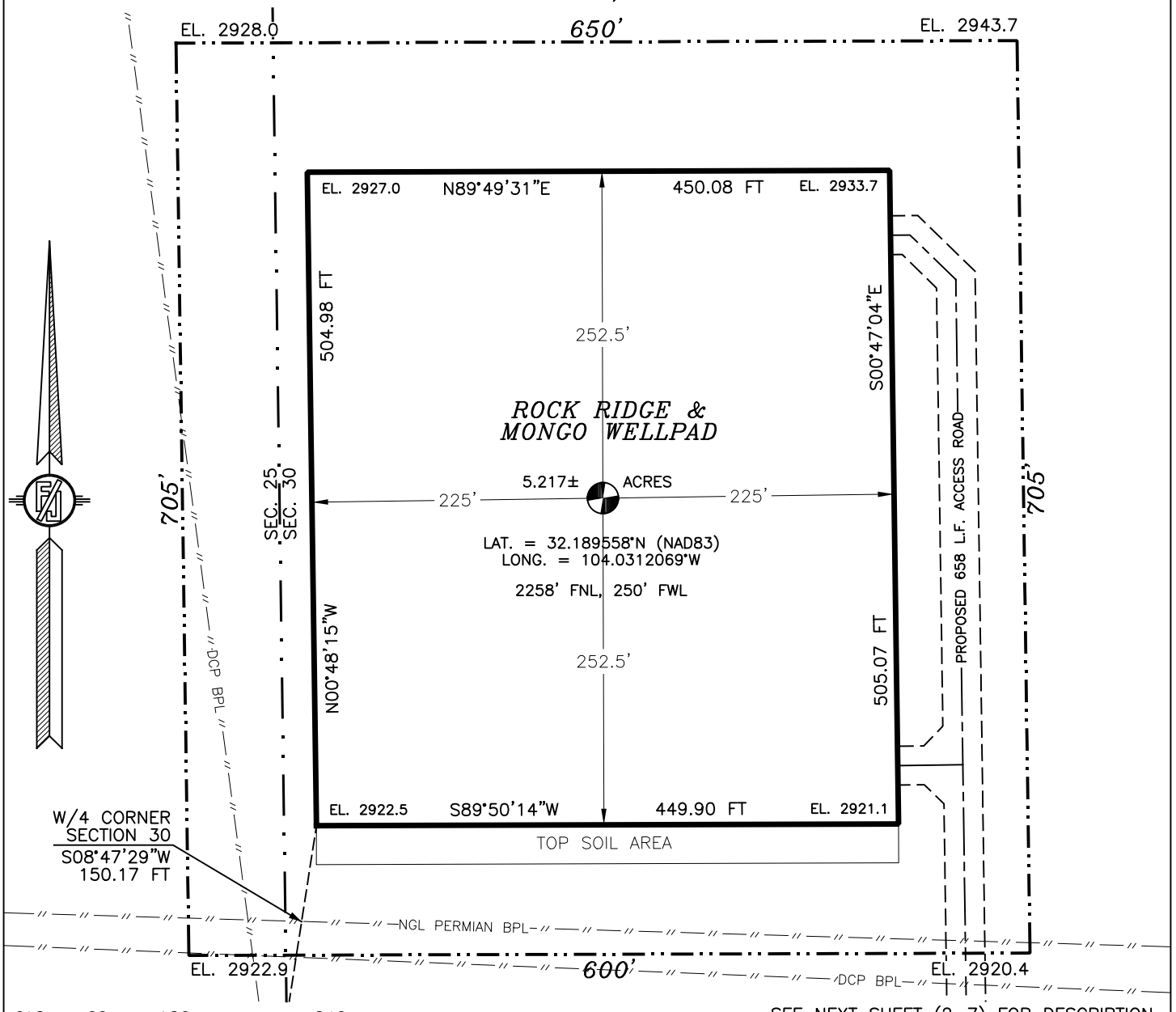
PPP2
1682' FNL, 1370' FEL
N.=433404.54
E.=633172.87
LAT.=32.1911581°N
LONG.=104.0364618°W

PPP3
1682' FNL, 1338' FWL
N.=433409.36
E.=630497.84
LAT.=32.1911913°N
LONG.=104.0451091°W

CORNER COORDINATES TABLE
NAD 83 NMSP EAST
A – N.=435093.40 E.=629160.27
B – N.=435088.58 E.=631839.95
C – N.=435083.75 E.=634519.62
D – N.=435091.27 E.=637126.06
E – N.=435100.14 E.=639747.47
F – N.=432425.77 E.=629160.62
G – N.=432426.14 E.=634556.83
H – N.=432449.28 E.=639760.68
I – N.=429757.19 E.=629160.43
J – N.=429761.47 E.=631825.40
K – N.=429765.77 E.=634490.37
L – N.=429773.04 E.=637125.56
M – N.=429780.25 E.=639780.68



ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025



SEE NEXT SHEET (2-7) FOR DESCRIPTION

GENERAL NOTES

1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELL PAD

2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

DRIVING DIRECTIONS: FROM THE INTERSECTION OF HIGHWAY 285 & CO. RD. 721 (PULLEY), GO EAST ON CO. RD. 721 APPROX. 1.17 MILES JUST PAST A CATTLE GUARD WHERE CO. RD. STARTS TO TURN NORTH, CONTINUE EAST AND IMMEDIATELY SOUTH ON A CALICHE ROAD, GO SOUTH AND EAST APPROX. 1 MILE TO A "Y" INTERSECTION, TAKE LEFT FORK AND CONTINUE EAST APPROX. 0.1 MILE TO A ROAD SURVEY ON LEFT (NORTH), FOLLOW ROAD SURVEY NORTH AND WEST APPROX. 266' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31 DAY OF MARCH 2025.

FILIMON F. JARAMILLO NEW MEXICO 12797 REGISTERED PROFESSIONAL SURVEYOR

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 1-7

SURVEY NO. 10351A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN BUREAU OF LAND MANAGEMENT LAND IN THE SW/4 LOT 2 OF SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BEGINNING AT THE SOUTHWEST CORNER OF THE PARCEL, WHENCE THE WEST QUARTER CORNER OF SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S08°47'29"W, A DISTANCE OF 150.17 FEET;
THENCE N00°48'15"W A DISTANCE OF 504.98 FEET TO THE NORTHWEST CORNER OF THE PARCEL;
THENCE N89°49'31"E A DISTANCE OF 450.08 FEET TO TO THE NORTHEAST CORNER OF THE PARCEL;
THENCE S00°47'04"E A DISTANCE OF 505.07 FEET TO THE SOUTHEAST CORNER OF THE PARCEL,
THENCE S89°50'14"W A DISTANCE OF 449.90 FEET TO THE SOUTHWEST CORNER OF THE PARCEL, THE POINT OF BEGINNING;
CONTAINING 5.217 ACRES MORE OR LESS.

GENERAL NOTES

1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELL PAD

2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

SURVEYOR CERTIFICATE

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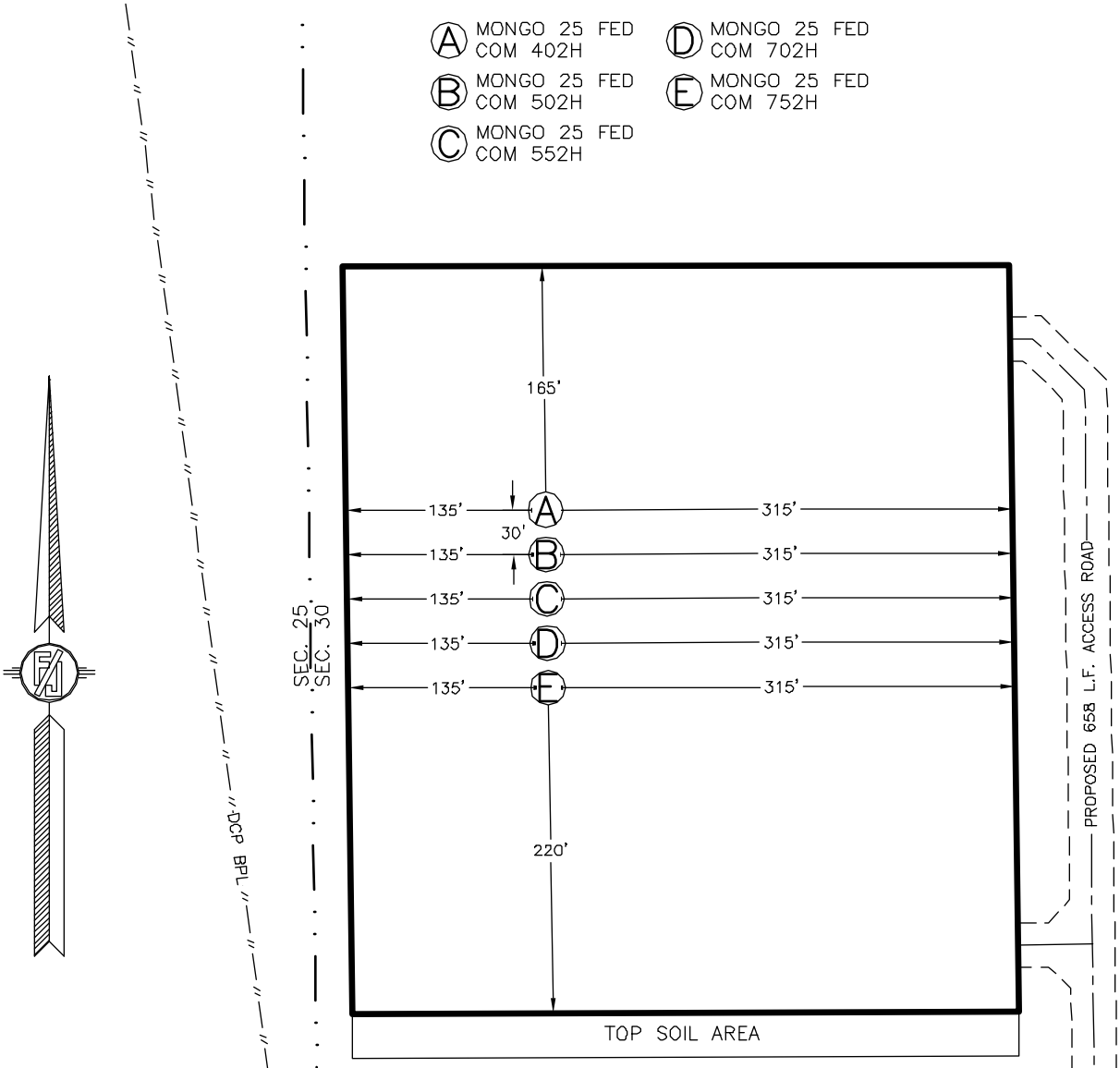
IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31 DAY OF MARCH 2025

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

SITE MAP



I, FILIMON F. JARAMILLO, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, PLS 17078

FILIMON F. JARAMILLO — NEW MEXICO — 17078 — REGISTERED PROFESSIONAL SURVEYOR

012 60 120 240
SCALE 1" = 120'

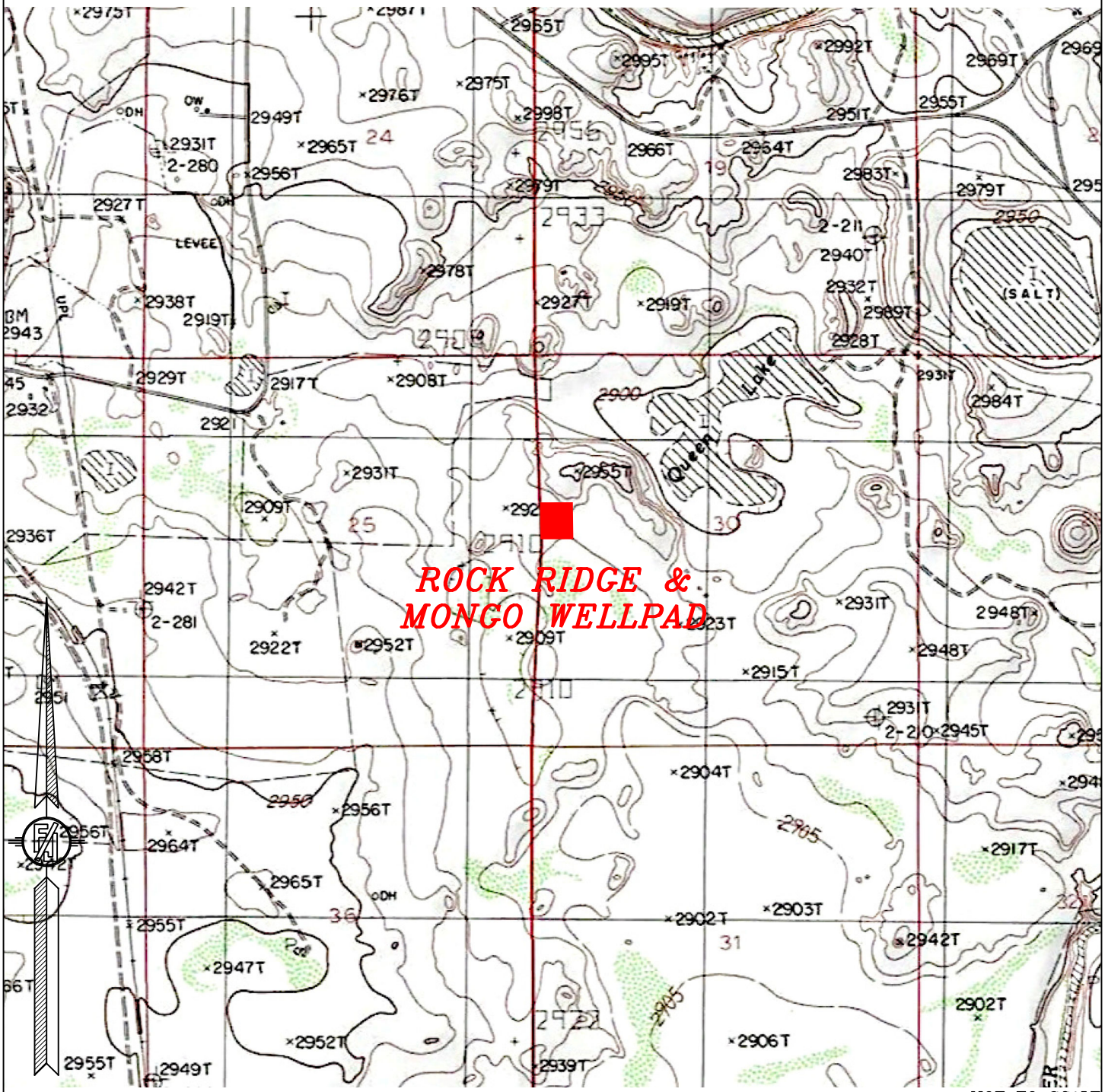
SHEET: 3

SURVEY NO. 10351A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

LOCATION VERIFICATION MAP



USGS QUAD MAP:
MALAGA

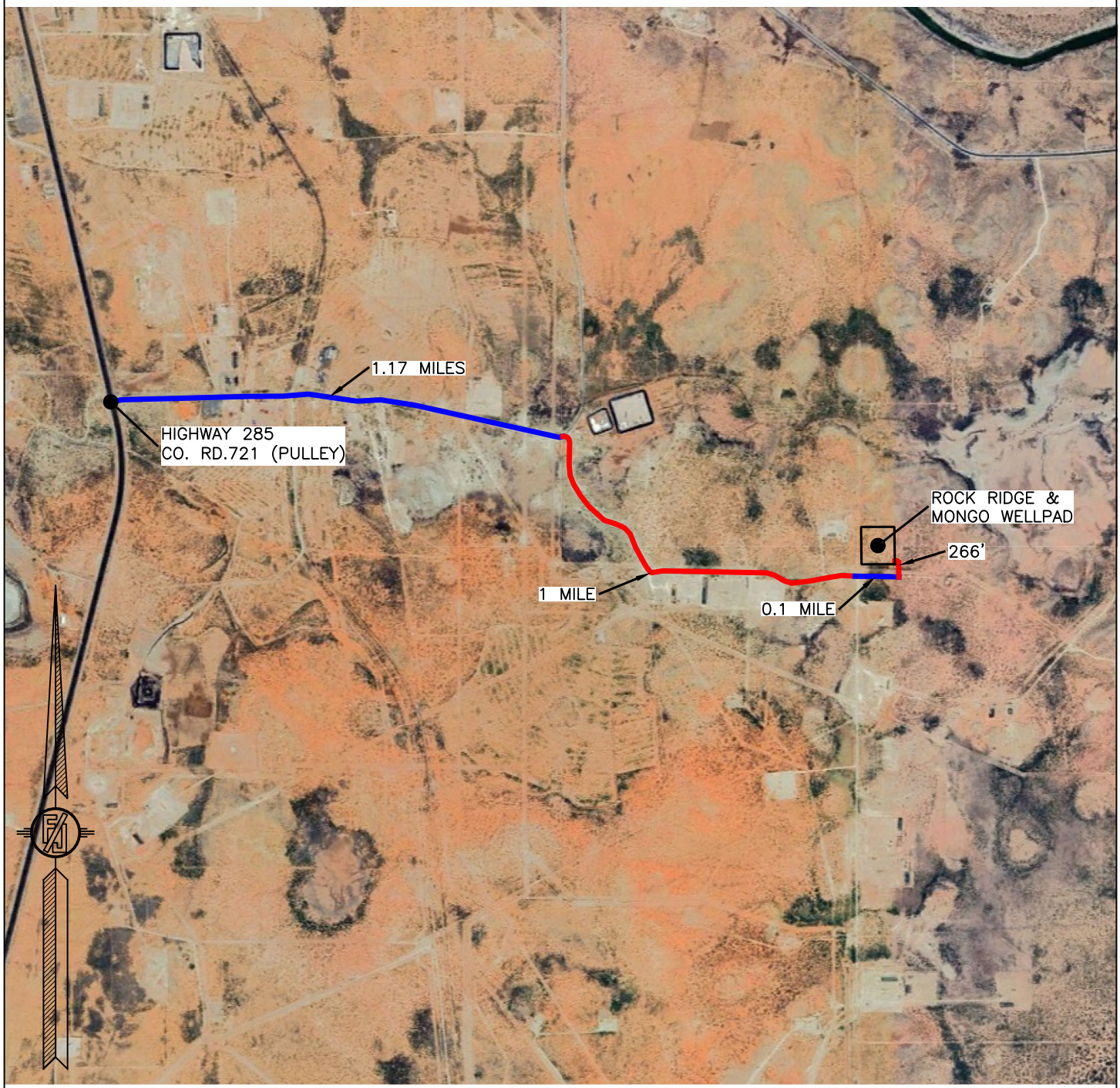
NOT TO SCALE

SHEET: 4-7 SURVEY NO. 10351A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO: GOOGLE EARTH

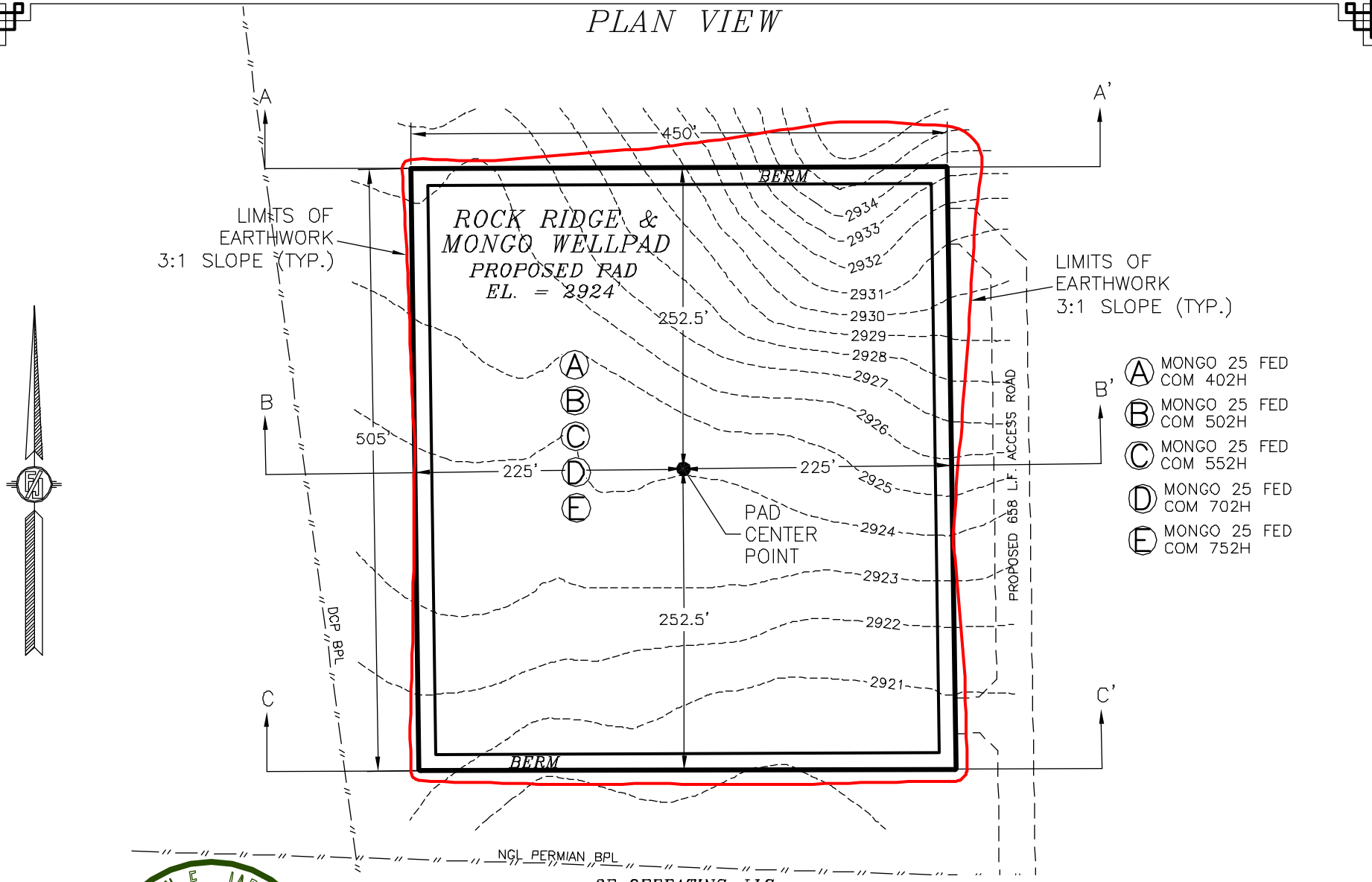
DRIVING DIRECTIONS: FROM THE INTERSECTION OF HIGHWAY 285 & CO. RD. 721 (PULLEY), GO EAST ON CO. RD. 721 APPROX. 1.17 MILES JUST PAST A CATTLE GUARD WHERE CO. RD. STARTS TO TURN NORTH, CONTINUE EAST AND IMMEDIATELY SOUTH ON A CALICHE ROAD, GO SOUTH AND EAST APPROX. 1 MILE TO A "Y" INTERSECTION, TAKE LEFT FORK AND CONTINUE EAST APPROX. 0.1 MILE TO A ROAD SURVEY ON LEFT (NORTH), FOLLOW ROAD SURVEY NORTH AND WEST APPROX. 266' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

SHEET: 5-7

SURVEY NO. 10351A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 *CARLSBAD, NEW MEXICO*

PLAN VIEW



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FILIMON F. JARAMILLO NM 12797

FILIMON F. JARAMILLO 12797 REGISTERED PROFESSIONAL SURVEYOR

3R OPERATING, LLC

PAD ELEVATIONS AND CROSS SECTIONS

FOR ROCK RIDGE & MONGO WELLPAD

SECTION 30, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 31, 2025

012 60 120 240

SCALE 1" = 120'

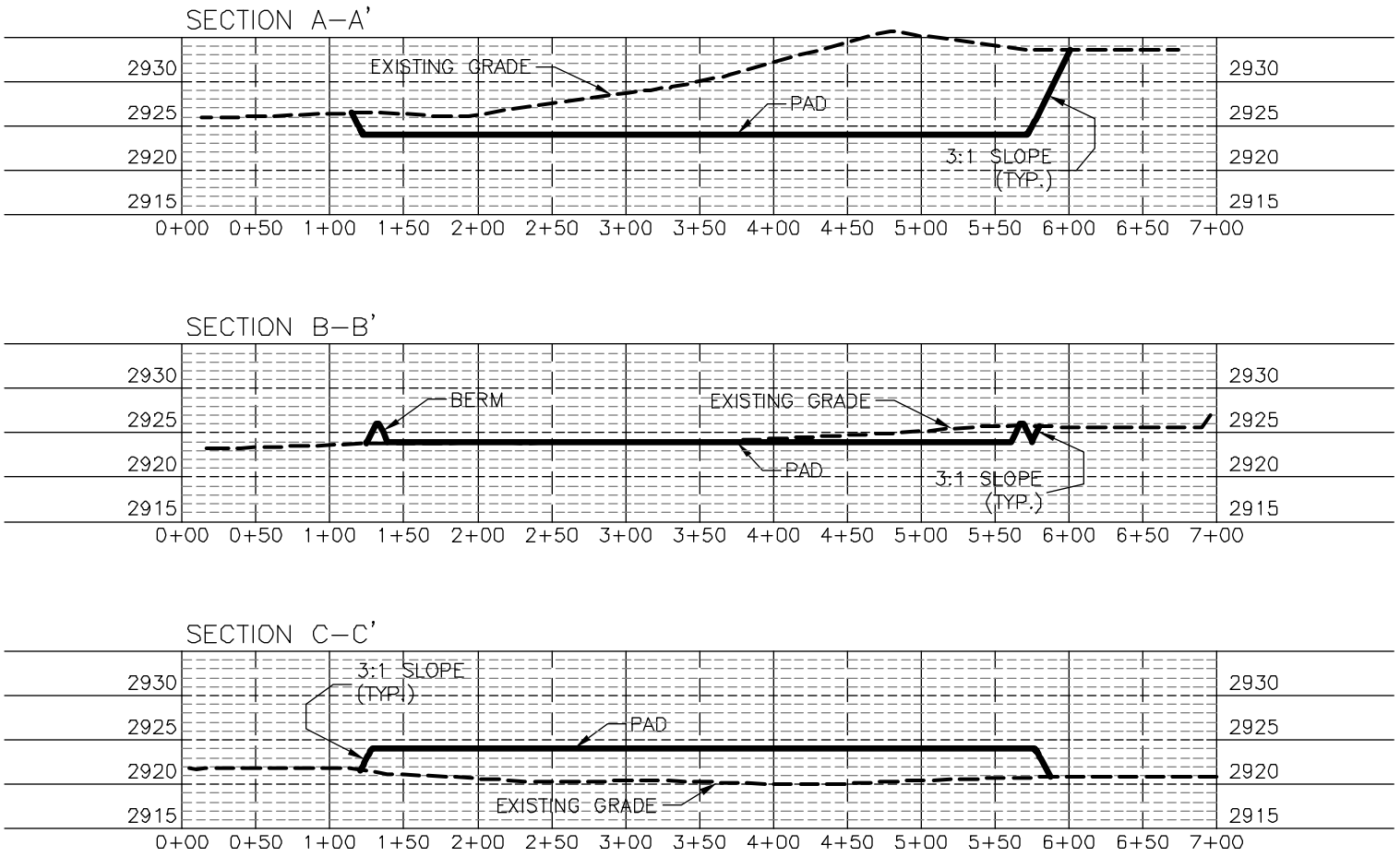
CUT	FILL	NET
15768 CU. YD	7927 CU. YD	7841 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

JARAMILLO SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 *CARLSBAD, NEW MEXICO*

SHEET 6-7
SURVEY NO. 10351A

CROSS-SECTIONS



I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, NMPS 12797

FILIMON F. JARAMILLO 12797 REGISTERED PROFESSIONAL SURVEYOR

3R OPERATING, LLC
PAD ELEVATIONS AND CROSS SECTIONS
FOR ROCK RIDGE & MONGO WELLPAD
SECTION 30, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 31, 2025

012 60 120 240
SCALE 1" = 120' - 1" = 20' VER

CUT	FILL	NET
15768 CU. YD	7927 CU. YD	7841 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

JARAMILLO SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 *CARLSBAD, NEW MEXICO*

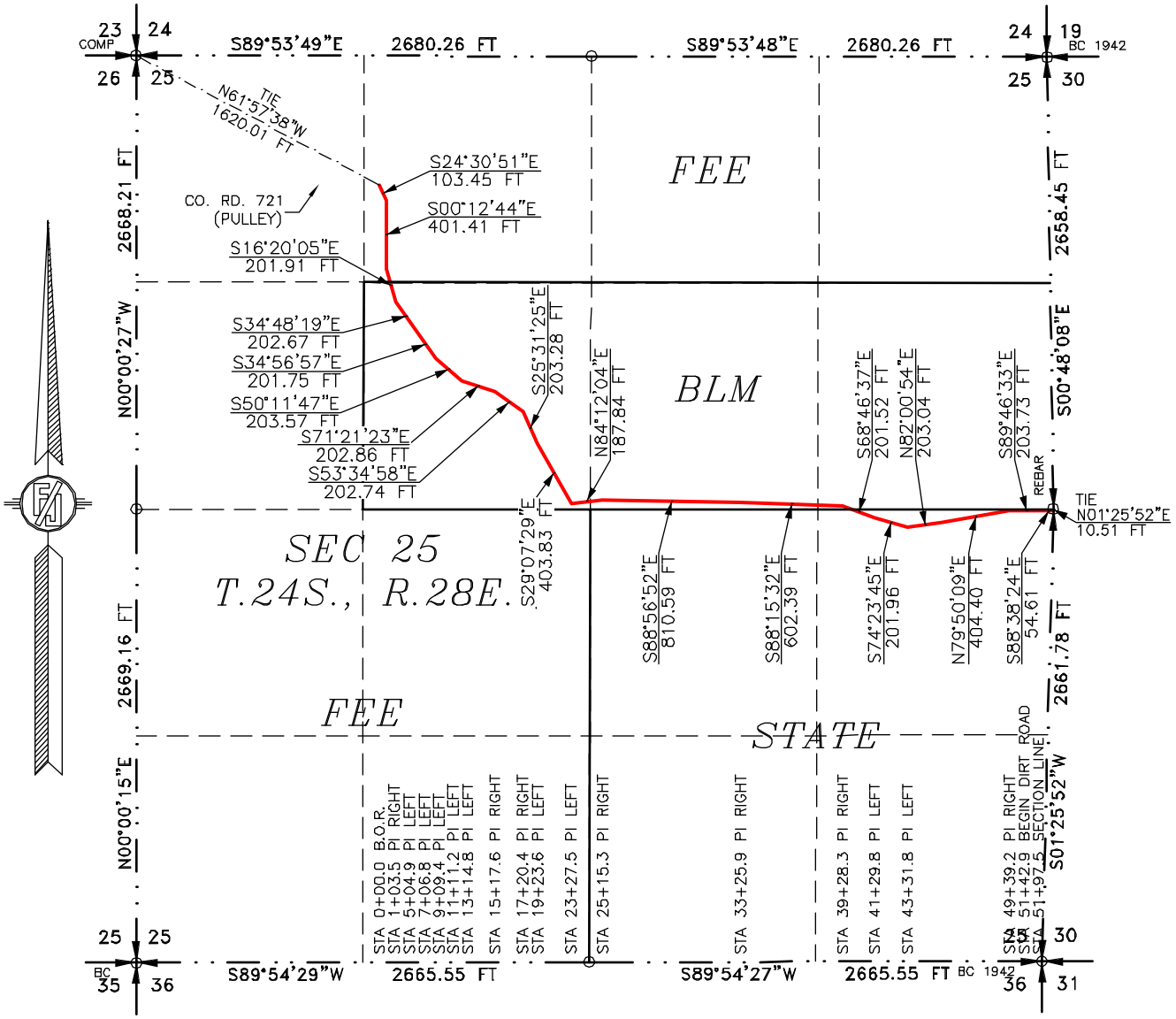
SHEET 7-7
SURVEY NO. 10351A

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025



SEE NEXT SHEET (2-4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS DAY OF MARCH 2025

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 1-4

SURVEY NO. 10351A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE, STATE OF NEW MEXICO AND BUREAU OF LAND MANAGEMENT LAND IN SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 NW/4 OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N61°57'38"W, A DISTANCE OF 1620.01 FEET;
THENCE S24°30'51"E A DISTANCE OF 103.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°12'44"E A DISTANCE OF 401.41 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S16°20'05"E A DISTANCE OF 201.91 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S34°48'19"E A DISTANCE OF 202.67 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S34°56'57"E A DISTANCE OF 201.75 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S50°11'47"E A DISTANCE OF 203.57 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S71°21'23"E A DISTANCE OF 202.86 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S53°34'58"E A DISTANCE OF 202.74 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S25°31'25"E A DISTANCE OF 203.28 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S29°07'29"E A DISTANCE OF 403.83 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N84°12'04"E A DISTANCE OF 187.84 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S88°56'52"E A DISTANCE OF 810.59 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S88°15'32"E A DISTANCE OF 602.39 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S68°46'37"E A DISTANCE OF 201.52 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S74°23'45"E A DISTANCE OF 201.96 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N82°00'54"E A DISTANCE OF 203.04 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N79°50'09"E A DISTANCE OF 404.40 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°46'33"E A DISTANCE OF 203.73 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S88°38'24"E A DISTANCE OF 54.61 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N01°25'52"E, A DISTANCE OF 10.51 FEET;

SAID STRIP OF LAND BEING 5197.55 FEET OR 315.00 RODS IN LENGTH, CONTAINING 3.580 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NW/4	586.49 L.F.	35.54 RODS	0.404 ACRES	FEE
SE/4 NW/4	1856.47 L.F.	112.51 RODS	1.279 ACRES	BLM
NW/4 NE/4	1337.15 L.F.	81.04 RODS	0.921 ACRES	BLM
SE/4 NE/4	201.71 L.F.	12.23 RODS	0.139 ACRES	BLM
NE/4 SE/4	1215.73 L.F.	73.68 RODS	0.837 ACRES	STATE

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS [illegible] DAY OF MARCH 2025.

FILIMON F. JARAMILLO PLS 12797
301 SOUTH CANAL
(575) 234-3327

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 2-4

SURVEY NO. 10351A

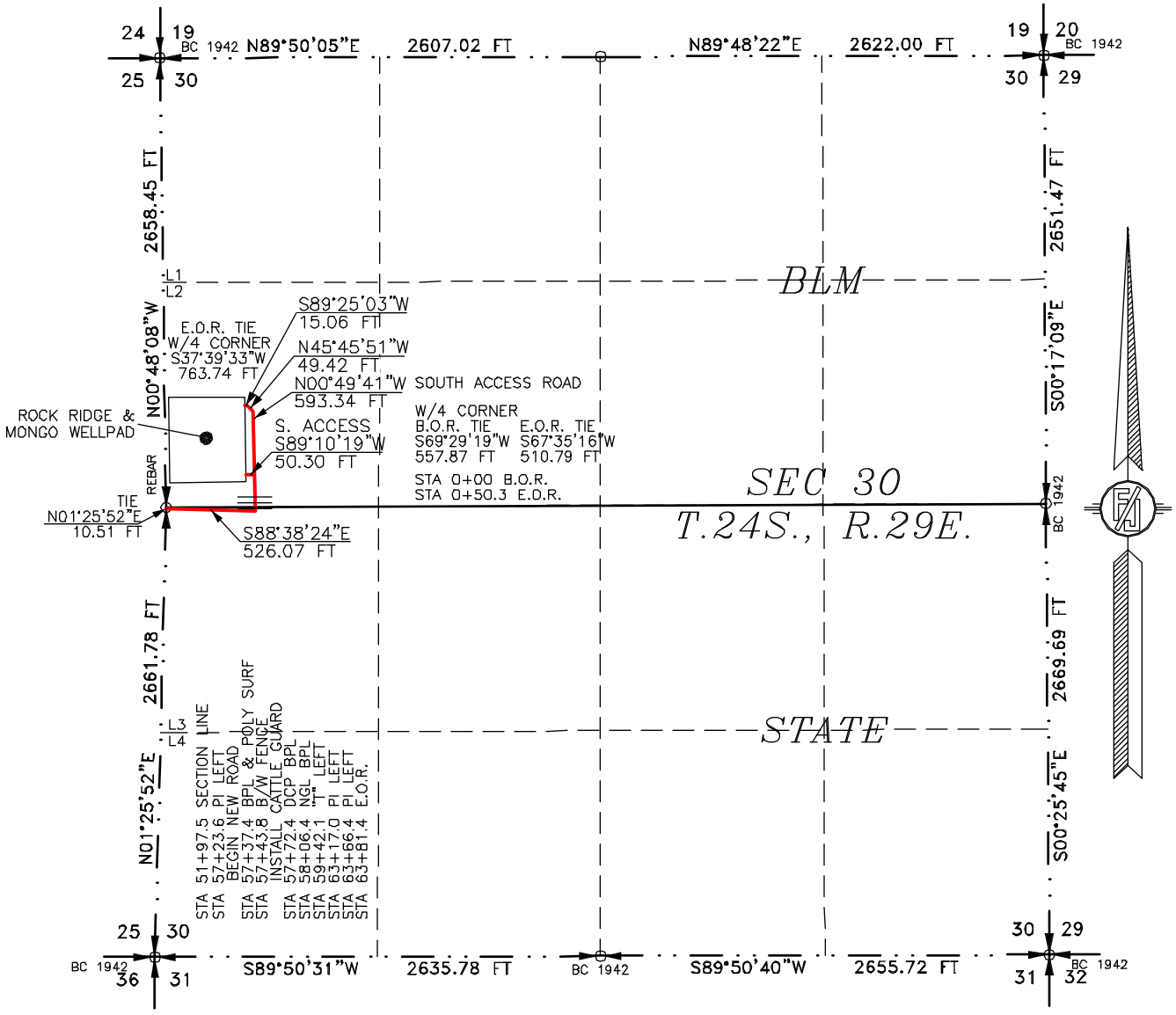
MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025



SEE NEXT SHEET (4-4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31ST DAY OF MARCH 2025

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 3-4

SURVEY NO. 10351A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO AND BUREAU OF LAND MANAGEMENT LAND IN SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

MAIN ROAD
BEGINNING AT A POINT WITHIN LOT 3 OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS N01°25'52"E, A DISTANCE OF 10.51 FEET;
THENCE S88°38'24"E A DISTANCE OF 526.07 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°49'41"W A DISTANCE OF 593.34 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N45°45'51"W A DISTANCE OF 49.42 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°25'03"W A DISTANCE OF 15.06 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S37°39'33"W, A DISTANCE OF 763.74 FEET;

SAID STRIP OF LAND BEING 1183.89 FEET OR 71.75 RODS IN LENGTH, CONTAINING 0.815 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 3	551.40 L.F.	33.42 RODS	0.380 ACRES	STATE
LOT 2	632.49 L.F.	38.33 RODS	0.436 ACRES	BLM

SOUTH ACCESS
BEGINNING AT A POINT WITHIN LOT 2 OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S69°29'19"W, A DISTANCE OF 557.87 FEET;
THENCE S89°10'19"W A DISTANCE OF 50.30 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S67°35'16"W, A DISTANCE OF 510.79 FEET;

SAID STRIP OF LAND BEING 50.30 FEET OR 3.05 RODS IN LENGTH, CONTAINING 0.035 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 2	50.30 L.F.	3.05 RODS	0.035 ACRES	BLM

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

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(575) 234-3327

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 4-4

SURVEY NO. 10351A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

Drilling Plan

Operator

3R Operating, LLC

Project Name

MONGO 25 FED COM 502H
SHL: 2200 FNL & 160' FWL of Section 30-24S-29E, Eddy County, NM
BHL: 1682' FNL & 100' FWL of Section 25-24S-28E, Eddy County, NM

Prepared By

Austin Tramell

Submitted To

Bureau of Land Management - Carlsbad Field Office

1.0 Estimated Formation Tops

Formation	Depth	Primary Lithology	Primary Mineral Resources
Rustler	Surface	Anhydrite	Usable Water
Salado	610	Salt	None
Castille	1,175	Limestone	None
Lamar	2,695	Limestone	None
Delaware	2,720	Sandstone	None
Bone Spring	6,425	Limestone	Oil & Gas
1st Bone Spring	7,380	Sandstone	Oil & Gas
2nd Bone Spring	8,185	Sandstone	Oil & Gas

Total Depth and Target Formation

Total Vertical Depth (ft): 8430
Total Measured Depth (ft): 14,014
Target Formation: Bone Spring (2nd)

2.0 Estimated Depths of Oil & Gas

Substance	Depth (ft)
Top of Hydrocarbons	6,425
Bottom of Hydrocarbons	TD

3.0 Pressure Control Equipment

Ten thousand (10M) psi working pressure Blind Rams & Pipe Rams and a five thousand (5M) psi Annular Preventer will be installed on all casing. Two (2) chokes, with at least one (1) being a remotely controlled hydraulic choke, will used. If a full 10M system is required by the BLM, three (3) chokes will be used.

A variance to the requirement of a rigid steel line connecting the BOP to the choke manifold is requested. Specifications for the flex hose are provided with the BOP schematic in the exhibit section.

Operator testing procedures will meet minimum standards for well control equipment testing per CFR § 3172.6(b)(9). Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

In addition, the BOP equipment will be tested after any repairs to the equipment and prior to drilling out below any casing string. Pipe rams, blind rams, and annular preventer will be activated on each trip and weekly BOP drills will be held with each crew.

Floor safety valves that are fully open and sized to fit drill pipe and collars will be available on the rig floor in the

open position when the Kelly is not in use.

4.0 Proposed Casing and Design Analysis

4.1 Proposed Casing Program

Interval	Length (ft)	Size (in)	Weight/ft (lbs)	Grade	Thread	Condition	Hole size (in)
Surface	350	13.375	48	H-40	STC	NEW	17.5
Inter.	2,650	9.625	36	J-55	BTC	NEW	12.25
Prod.	13,594	5.5	20	P110	BTC	New	8.75

4.2 Casing Specifications

Interval	Total Vertical Depth (TVD)	Total Measured Depth (MD)	Weight/ft (lbs)	Grade	Collapse (psi)	Internal Yld (psi)	Body Yld Strength (psi)	Joint Strength (psi)
Surface	350	350	48	H-40	770	1,730	541,000	322,000
Inter.	2,650	2,650	36	J-55	2,020	3,520	564,000	639,000
Prod.	8,310	13,594	20	P110	11,080	12,640	641,000	667,000

5.0 Proposed Cement Program

Surface Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Sur. Lead	0	50	13.50	1.79	100	70	39
Sur. Tail	50	350	14.80	1.33	100	417	313

Lead Cmt Type: Class C
Lead Additives: 4% Gel + 5% Salt +0.2% SA-1 + 0.25pps Pol-E Flake + 0.005gps NOFoam V1A
Tail Cmt Type: Class C
Tail Additives: 1% calcium chloride + 0.005gps NoFoam V1A

Intermediate Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Int. Lead	0	2,150	12.70	1.53	50	1,011	639
Int. Tail	2,150	2,650	14.80	1.33	50	235	177

Lead Cmt Type: 40% Class C + 60% POZ
Lead Additives: 5% Salt + 1% SMS + 2% CS-9 + 0.1% R-1300 + 0.25pps Pol-E Flake + 0.005gps NoFoam V1A
Tail Cmt Type: Class C
Tail Additives: 1% calcium chloride + 0.005gps NoFoam V1A

Production Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Prod. Lead	0	7,373	10.70	3.34	15	2,084	624
Prod. Tail	7,373	13,594	13.50	1.54	15	1,806	1,173

Lead Cmt Type: 100% ProLite

Lead Additives: 5pps Plexcrete STE + 2% SMS + 0.1% RCKCAS-100 + .85% R-1300 + 0.2% FL-24 + .25pps Pol-E Flake + 0.005gps NoFoam V1A

Tail Cmt Type: 50% Class H + 50% B POZ

Tail Additives: 6% Gell + 5% Slat + .2% SMS + .55% FR-5 + .4% FL-24 + 0.005gps NoFoam V1A

*** Operator reserves the right to change cement designs as hole conditions may warrant**

6.0 Proposed Mud Program

Interval	Top (MD)	Bottom (MD)	Type	Max Mud Weight Pressure Control Design	Max Mud Weight Hole Control Design	Viscosity (cP)	Formation Fracture Gradient	Fluid Loss
Surface	0	350	FW	9.2	8.4	32-36	0.75	NC
Inter.	350	2,650	FW	8.60	8.4	28-30	0.75	NC
Prod.	2,650	13,594	OBM	9.6	9.2	50-70	0.75	8-10 cc

Mud weight increases at shoe depths are for pressure control. Mud weight increases in the curve and lateral section of the hole are for hole stability, not pressure control. Mud weight assumptions for casing load designs exceed anticipated maximum mud weight for balanced drilling in all hole sections. Expected mud weights in producing formation will be 0.5 to 1.0 lbs/gal greater than formation pressure (i.e. overbalanced drilling).

The mud system will run as a closed loop system with PVT monitoring. All drill cuttings and liquid mud will be hauled to an approved site for disposal or soil farmed upon receiving appropriate approval.

An industry accepted medium will be stored on location in the event that there is a loss of circulation in the well bore.

7.0 Drilling Design Analysis

7.1 Casing Safety Factors

**See separate SF attachment*

Interval	Burst Safety Factor	Collapse Safety Factor	Pipe Body Tensile Safety Factor	Joint Tension Safety Factor
Surface	11.05	4.92	32.20	19.17
Inter.	2.97	3.41	6.70	5.91
Prod.	3.00	2.63	3.80	3.96

7.2 Casing Design Assumptions

7.2.1 Surface Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

7.2.2 Intermediate Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

7.2.3 Production Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

8.0 Completion Program and Casing Design

Hydraulic fracturing will occur through the production casing. The burst design calculation assumes TOC at 9400 ft., therefore, the backside of the production casing is not evacuated. The maximum pumping pressure is 9500 psi with a maximum proppant fluid weight of 9.5 lbs/gal.

Upon request, operator will provide proof of cement bonding by bond log. Operator is responsible for log interpretation and certification prior to frac treatment.

Upon request, operator will provide estimated fracture lengths, flowback storage, volumes of fluids and amount of sand to be used, and number of stages of frac procedure. Furthermore, a report of the annulus pressures before and after each stage of treatment may be requested by the BLM. The report may include chemical additives (other than proprietary), dissolved solids in frac fluid, and depth of perforations.

9.0 Drilling Evaluation Program

Required Testing, Logging, and Coring procedures noted below:

* Mud Logging/Gamma Ray/MWD – (MWD on horizontal wells only).
* Open hole logs (GR/SP/DIL/LDT/CNL/ML) from TD (horizontal well - vertical portion of hole) to the top of the uppermost potential hydrocarbon intervals
* Open hole logs (GR/SP/DIL) from the top of the uppermost hydrocarbon interval to the base of the surface casing and (GR) log from base of surface casing to surface.
* Cased hole CBL on production casing.

Note: The above referenced logging requirements are mandatory unless:

1) The well is located off unit, or
2) The operator can provide the BLM adequate geologic information in which they based the location and drilling of the well, or
3) The operator can provide the BLM logging data from a well that is within a 1-mile radius from the proposed surface hole location. The logging data can be no more than 30 years old and must be at least to TD of the proposed well.

10.0 Downhole Conditions

Zones of Possible Lost Circulation:	N/A	
Zones of Possible Abnormal Pressure:	N/A	
Maximum Bottom Hole Tempurature:	180	degrees F
Maximum Bottom Hole Pressure:	4,280	psi
Maximum Anticipated Surface Pressure:	2,354	psi

Casing Program: **RRR-Mongo 25 Fed Com 502H - 13/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	BTC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800	32.20
Intermediate																			
12.25"	0'	2,650'	2,650'	9 5/8"	36	J-55	LTC	New	8.6	3520	2.97	2020	3.41	564,000	95,400	5.91	639,000	95,400	6.70
Production																			
8.75"	0'	13,954'	8,310'	5 1/2"	20	P-110	BTC	New	9.6	12640	3.05	11080	2.67	667,000	166,200	4.01	641,000	166,200	3.86

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6	ppg

Intermediate

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6	ppg
Collapse	A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	8.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6	ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.6	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.6	ppg

3R Operating, LLC

Company: 3R Operating, LLC
Field: Eddy County, NM (NAD83)
Location: Mongo 25 Fed Com
Well: Mongo 25 Fed Com 502H
OH
Plan: Plan 1
GL 2925 + 25' KB @ 2950.00usft

RIG: TBD

Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.14°

Magnetic Field
Strength: 47033.3nT
Dip Angle: 59.68°
Date: 4/11/2025
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.14°

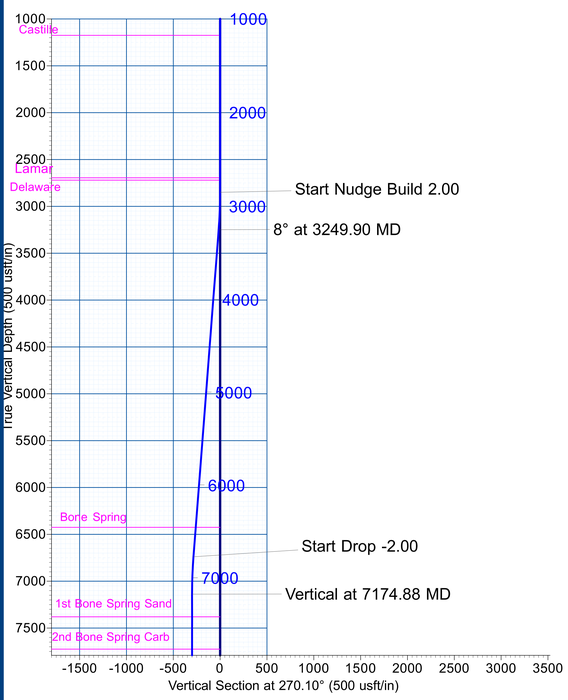
LEGACY DIRECTIONAL

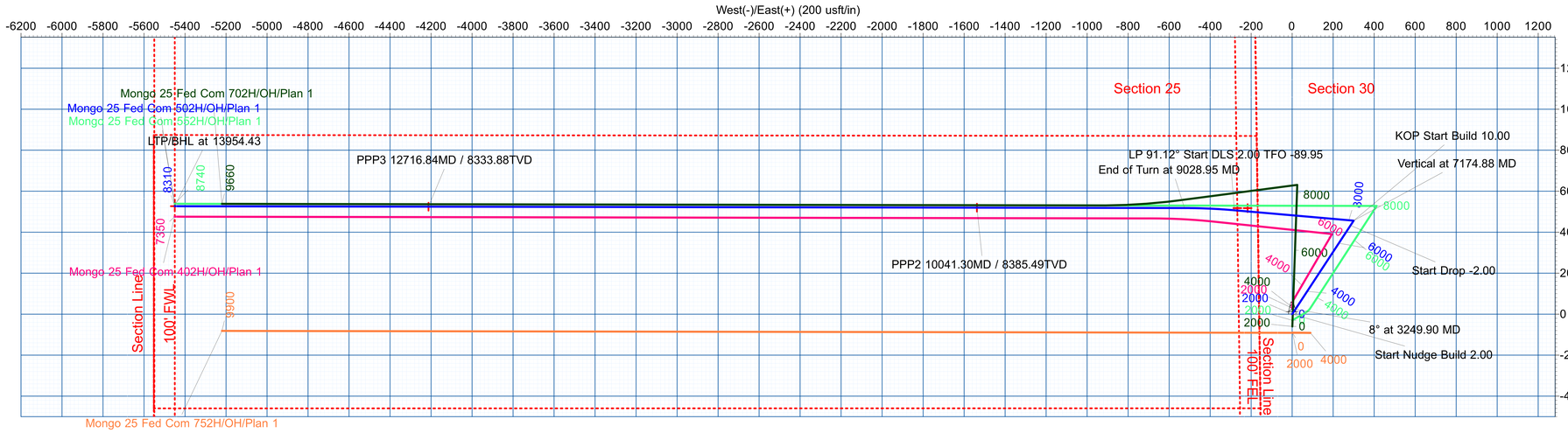
PROJECT DETAILS: Eddy County, NM (NAD83)

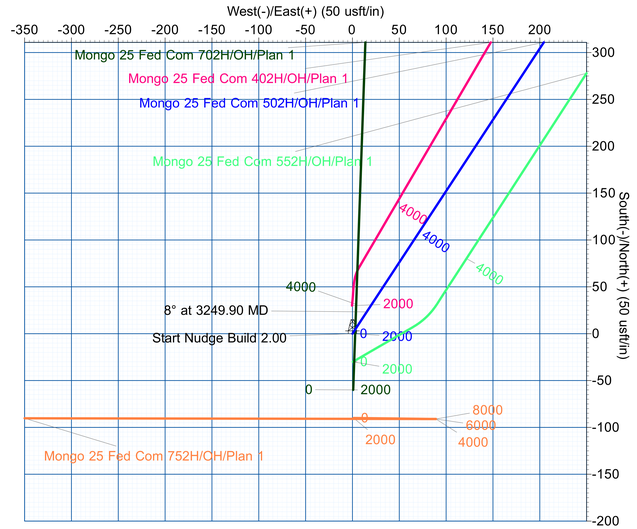
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
15.00	15.00	Rustler
610.00	610.00	Salado
1175.00	1175.00	Castille
2695.00	2695.00	Lamar
2720.00	2720.00	Delaware
6425.00	6457.50	Bone Spring
7380.00	7416.88	1st Bone Spring Sand
7725.00	7761.88	2nd Bone Spring Carb
8185.00	8247.86	2nd Bone Spring Sand







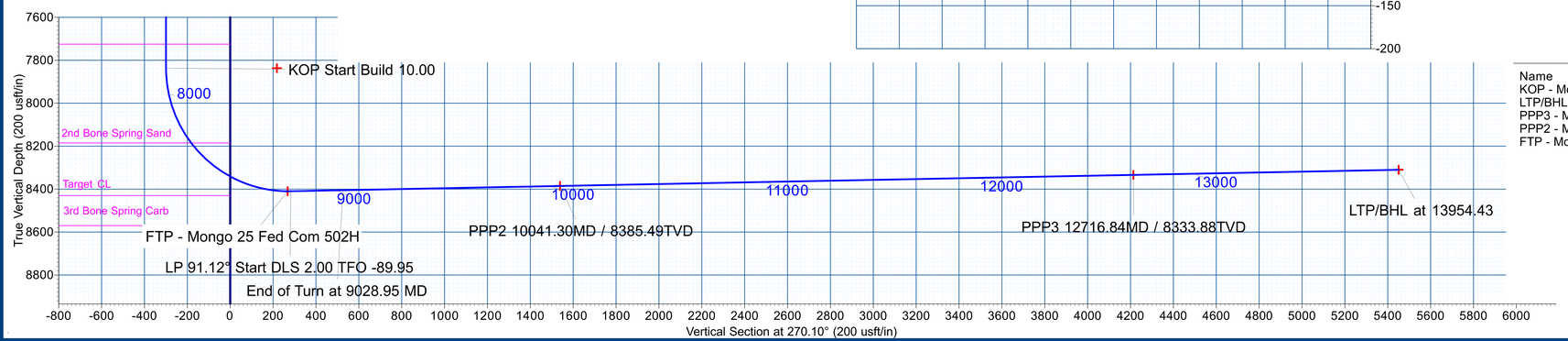
WELL DETAILS: Mongo 25 Fed Com 502H

GL 2925 + 25' KB @ 2950.00usft 2925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	432884.77	634710.39	32.189718	-104.031496	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2850.00	0.00	0.00	2850.00	0.00	0.00	0.00	0.00	0.00	
3	3249.90	8.00	33.32	3248.60	23.29	15.31	2.00	33.32	-15.26	
4	6774.99	8.00	33.32	6739.40	433.15	284.69	0.00	0.00	-283.94	
5	7174.88	0.00	0.00	7138.00	456.44	300.00	2.00	180.00	-299.20	
6	7873.98	0.00	0.00	7837.10	456.44	300.00	0.00	0.00	-299.20	KOP - Mongo 25 Fed Com 502H
7	8785.14	91.12	274.98	8409.95	507.15	-281.91	10.00	274.98	282.79	
8	9028.95	91.12	270.10	8405.20	517.95	-525.35	2.00	-89.95	526.26	
9	10041.30	91.12	270.10	8385.49	519.77	-1537.52	0.00	0.00	1538.42	PPP2 - Mongo 25 Fed Com 502H
10	12716.84	91.10	270.10	8333.88	524.59	-4212.55	0.00	178.38	4213.46	PPP3 - Mongo 25 Fed Com 502H
11	13954.43	91.10	270.10	8310.23	526.83	-5449.92	0.00	0.00	5450.83	LTP/BHL - Mongo 25 Fed Com 502H



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP - Mongo 25 Fed Com 502H	7837.10	517.40	-217.22	433402.17	634493.17	32.191141	-104.032194
LTP/BHL - Mongo 25 Fed Com 502H	8310.00	526.82	-5449.92	433411.59	629260.47	32.191207	-104.049109
PPP3 - Mongo 25 Fed Com 502H	8333.88	524.59	-4212.55	433409.36	630497.84	32.191191	-104.045109
PPP2 - Mongo 25 Fed Com 502H	8385.49	519.77	-1537.52	433404.54	633172.87	32.191158	-104.036462
FTP - Mongo 25 Fed Com 502H	8410.00	517.49	-267.22	433402.26	634443.17	32.191142	-104.032355

Plan: Plan 1 (Mongo 25 Fed Com 502H/OH)
Created By: Jenise Kirkpatrick Date: 20:03, April 15 2025

3R Operating, LLC

Eddy County, NM (NAD83)
Mongo 25 Fed Com
Mongo 25 Fed Com 502H

OH

Plan: Plan 1

Standard Planning Report

15 April, 2025

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project Eddy County, NM (NAD83)

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

Site Mongo 25 Fed Com

Site Position:		**Northing:**	432,914.76 usft	**Latitude:**	32.189800
From:	Map	**Easting:**	634,709.97 usft	**Longitude:**	-104.031498
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Mongo 25 Fed Com 502H

Well Position	**+N/-S**	0.00 usft	**Northing:**	432,884.77 usft	**Latitude:**	32.189718
	+E/-W	0.00 usft	**Easting:**	634,710.39 usft	**Longitude:**	-104.031497
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,925.00 usft
Grid Convergence:		0.16 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/11/2025	6.30	59.68	47,033.33346718

Design Plan 1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	270.10

Plan Survey Tool Program **Date** 4/15/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,954.43	Plan 1 (OH)	MWD+IFR1+MS	
				OWSG MWD + IFR1 + Multi-St	

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,850.00	0.00	0.00	2,850.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,249.90	8.00	33.32	3,248.60	23.29	15.31	2.00	2.00	0.00	33.32	
6,774.99	8.00	33.32	6,739.40	433.15	284.69	0.00	0.00	0.00	0.00	
7,174.88	0.00	0.00	7,138.00	456.44	300.00	2.00	-2.00	0.00	180.00	
7,873.98	0.00	0.00	7,837.10	456.44	300.00	0.00	0.00	0.00	0.00	KOP - Mongo 25 Fed
8,785.14	91.12	274.98	8,409.95	507.15	-281.91	10.00	10.00	0.00	274.98	
9,028.95	91.12	270.10	8,405.20	517.95	-525.35	2.00	0.00	-2.00	-89.95	
10,041.30	91.12	270.10	8,385.49	519.77	-1,537.52	0.00	0.00	0.00	0.00	PPP2 - Mongo 25 Fed
12,716.84	91.10	270.10	8,333.88	524.59	-4,212.55	0.00	0.00	0.00	178.38	PPP3 - Mongo 25 Fed
13,954.43	91.10	270.10	8,310.23	526.83	-5,449.92	0.00	0.00	0.00	0.00	LTP/BHL - Mongo 25

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
610.00	0.00	0.00	610.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,175.00	0.00	0.00	1,175.00	0.00	0.00	0.00	0.00	0.00	0.00
Castille									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,695.00	0.00	0.00	2,695.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,720.00	0.00	0.00	2,720.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,850.00	0.00	0.00	2,850.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Nudge Build 2.00									
2,900.00	1.00	33.32	2,900.00	0.36	0.24	-0.24	2.00	2.00	0.00
3,000.00	3.00	33.32	2,999.93	3.28	2.16	-2.15	2.00	2.00	0.00
3,100.00	5.00	33.32	3,099.68	9.11	5.99	-5.97	2.00	2.00	0.00
3,200.00	7.00	33.32	3,199.13	17.84	11.73	-11.70	2.00	2.00	0.00
3,249.90	8.00	33.32	3,248.60	23.29	15.31	-15.26	2.00	2.00	0.00
8° at 3249.90 MD									
3,300.00	8.00	33.32	3,298.22	29.11	19.13	-19.08	0.00	0.00	0.00
3,400.00	8.00	33.32	3,397.24	40.74	26.78	-26.70	0.00	0.00	0.00
3,500.00	8.00	33.32	3,496.27	52.37	34.42	-34.33	0.00	0.00	0.00
3,600.00	8.00	33.32	3,595.30	63.99	42.06	-41.95	0.00	0.00	0.00
3,700.00	8.00	33.32	3,694.32	75.62	49.70	-49.57	0.00	0.00	0.00
3,800.00	8.00	33.32	3,793.35	87.25	57.34	-57.19	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	8.00	33.32	3,892.38	98.87	64.99	-64.81	0.00	0.00	0.00
4,000.00	8.00	33.32	3,991.41	110.50	72.63	-72.44	0.00	0.00	0.00
4,100.00	8.00	33.32	4,090.43	122.13	80.27	-80.06	0.00	0.00	0.00
4,200.00	8.00	33.32	4,189.46	133.76	87.91	-87.68	0.00	0.00	0.00
4,300.00	8.00	33.32	4,288.49	145.38	95.55	-95.30	0.00	0.00	0.00
4,400.00	8.00	33.32	4,387.52	157.01	103.20	-102.92	0.00	0.00	0.00
4,500.00	8.00	33.32	4,486.54	168.64	110.84	-110.54	0.00	0.00	0.00
4,600.00	8.00	33.32	4,585.57	180.26	118.48	-118.17	0.00	0.00	0.00
4,700.00	8.00	33.32	4,684.60	191.89	126.12	-125.79	0.00	0.00	0.00
4,800.00	8.00	33.32	4,783.62	203.52	133.77	-133.41	0.00	0.00	0.00
4,900.00	8.00	33.32	4,882.65	215.15	141.41	-141.03	0.00	0.00	0.00
5,000.00	8.00	33.32	4,981.68	226.77	149.05	-148.65	0.00	0.00	0.00
5,100.00	8.00	33.32	5,080.71	238.40	156.69	-156.27	0.00	0.00	0.00
5,200.00	8.00	33.32	5,179.73	250.03	164.33	-163.90	0.00	0.00	0.00
5,300.00	8.00	33.32	5,278.76	261.65	171.98	-171.52	0.00	0.00	0.00
5,400.00	8.00	33.32	5,377.79	273.28	179.62	-179.14	0.00	0.00	0.00
5,500.00	8.00	33.32	5,476.82	284.91	187.26	-186.76	0.00	0.00	0.00
5,600.00	8.00	33.32	5,575.84	296.54	194.90	-194.38	0.00	0.00	0.00
5,700.00	8.00	33.32	5,674.87	308.16	202.54	-202.01	0.00	0.00	0.00
5,800.00	8.00	33.32	5,773.90	319.79	210.19	-209.63	0.00	0.00	0.00
5,900.00	8.00	33.32	5,872.93	331.42	217.83	-217.25	0.00	0.00	0.00
6,000.00	8.00	33.32	5,971.95	343.04	225.47	-224.87	0.00	0.00	0.00
6,100.00	8.00	33.32	6,070.98	354.67	233.11	-232.49	0.00	0.00	0.00
6,200.00	8.00	33.32	6,170.01	366.30	240.75	-240.11	0.00	0.00	0.00
6,300.00	8.00	33.32	6,269.03	377.93	248.40	-247.74	0.00	0.00	0.00
6,400.00	8.00	33.32	6,368.06	389.55	256.04	-255.36	0.00	0.00	0.00
6,457.50	8.00	33.32	6,425.00	396.24	260.43	-259.74	0.00	0.00	0.00
Bone Spring									
6,500.00	8.00	33.32	6,467.09	401.18	263.68	-262.98	0.00	0.00	0.00
6,600.00	8.00	33.32	6,566.12	412.81	271.32	-270.60	0.00	0.00	0.00
6,700.00	8.00	33.32	6,665.14	424.44	278.96	-278.22	0.00	0.00	0.00
6,774.99	8.00	33.32	6,739.40	433.15	284.69	-283.94	0.00	0.00	0.00
Start Drop -2.00									
6,800.00	7.50	33.32	6,764.19	435.97	286.55	-285.79	2.00	-2.00	0.00
6,900.00	5.50	33.32	6,863.54	445.43	292.76	-291.98	2.00	-2.00	0.00
7,000.00	3.50	33.32	6,963.23	451.98	297.07	-296.28	2.00	-2.00	0.00
7,100.00	1.50	33.32	7,063.13	455.62	299.46	-298.67	2.00	-2.00	0.00
7,174.88	0.00	0.00	7,138.00	456.44	300.00	-299.20	2.00	-2.00	0.00
Vertical at 7174.88 MD									
7,200.00	0.00	0.00	7,163.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,263.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,363.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,416.88	0.00	0.00	7,380.00	456.44	300.00	-299.20	0.00	0.00	0.00
1st Bone Spring Sand									
7,500.00	0.00	0.00	7,463.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,563.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,700.00	0.00	0.00	7,663.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,761.88	0.00	0.00	7,725.00	456.44	300.00	-299.20	0.00	0.00	0.00
2nd Bone Spring Carb									
7,800.00	0.00	0.00	7,763.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,873.98	0.00	0.00	7,837.10	456.44	300.00	-299.20	0.00	0.00	0.00
KOP Start Build 10.00									
7,900.00	2.60	274.98	7,863.11	456.49	299.41	-298.61	10.00	10.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,950.00	7.60	274.98	7,912.89	456.88	294.98	-294.19	10.00	10.00	0.00
8,000.00	12.60	274.98	7,962.10	457.64	286.25	-285.45	10.00	10.00	0.00
8,050.00	17.60	274.98	8,010.36	458.77	273.28	-272.48	10.00	10.00	0.00
8,100.00	22.60	274.98	8,057.30	460.26	256.16	-255.36	10.00	10.00	0.00
8,150.00	27.60	274.98	8,102.56	462.10	235.04	-234.23	10.00	10.00	0.00
8,200.00	32.60	274.98	8,145.81	464.28	210.06	-209.25	10.00	10.00	0.00
8,247.86	37.39	274.98	8,185.00	466.66	182.73	-181.91	10.00	10.00	0.00
2nd Bone Spring Sand									
8,250.00	37.60	274.98	8,186.70	466.77	181.43	-180.61	10.00	10.00	0.00
8,300.00	42.60	274.98	8,224.93	469.57	149.35	-148.53	10.00	10.00	0.00
8,350.00	47.60	274.98	8,260.22	472.64	114.08	-113.26	10.00	10.00	0.00
8,400.00	52.60	274.98	8,292.28	475.97	75.88	-75.05	10.00	10.00	0.00
8,450.00	57.60	274.98	8,320.87	479.53	35.04	-34.20	10.00	10.00	0.00
8,500.00	62.60	274.98	8,345.79	483.29	-8.13	8.97	10.00	10.00	0.00
8,550.00	67.60	274.98	8,366.83	487.23	-53.30	54.15	10.00	10.00	0.00
8,600.00	72.60	274.98	8,383.84	491.31	-100.12	100.98	10.00	10.00	0.00
8,650.00	77.60	274.98	8,396.70	495.50	-148.24	149.11	10.00	10.00	0.00
8,700.00	82.60	274.98	8,405.29	499.77	-197.30	198.17	10.00	10.00	0.00
8,750.00	87.60	274.98	8,409.56	504.10	-246.91	247.79	10.00	10.00	0.00
8,785.14	91.12	274.98	8,409.95	507.15	-281.91	282.79	10.00	10.00	0.00
LP 91.12° Start DLS 2.00 TFO -89.95									
8,800.00	91.12	274.68	8,409.66	508.40	-296.71	297.60	2.00	0.00	-2.00
8,900.00	91.12	272.68	8,407.71	514.82	-396.48	397.38	2.00	0.00	-2.00
9,000.00	91.12	270.68	8,405.76	517.75	-496.42	497.32	2.00	0.00	-2.00
9,028.95	91.12	270.10	8,405.20	517.95	-525.35	526.26	2.00	0.00	-2.00
End of Turn at 9028.95 MD									
9,100.00	91.12	270.10	8,403.82	518.08	-596.40	597.30	0.00	0.00	0.00
9,200.00	91.12	270.10	8,401.87	518.26	-696.38	697.28	0.00	0.00	0.00
9,300.00	91.12	270.10	8,399.92	518.44	-796.36	797.26	0.00	0.00	0.00
9,400.00	91.12	270.10	8,397.98	518.62	-896.34	897.24	0.00	0.00	0.00
9,500.00	91.12	270.10	8,396.03	518.80	-996.32	997.22	0.00	0.00	0.00
9,600.00	91.12	270.10	8,394.08	518.98	-1,096.30	1,097.20	0.00	0.00	0.00
9,700.00	91.12	270.10	8,392.14	519.16	-1,196.28	1,197.19	0.00	0.00	0.00
9,800.00	91.12	270.10	8,390.19	519.34	-1,296.26	1,297.17	0.00	0.00	0.00
9,900.00	91.12	270.10	8,388.24	519.52	-1,396.24	1,397.15	0.00	0.00	0.00
10,000.00	91.12	270.10	8,386.29	519.70	-1,496.22	1,497.13	0.00	0.00	0.00
10,041.30	91.12	270.10	8,385.49	519.77	-1,537.52	1,538.42	0.00	0.00	0.00
PPP2 10041.30MD / 8385.49TVD									
10,100.00	91.12	270.10	8,384.35	519.88	-1,596.20	1,597.11	0.00	0.00	0.00
10,200.00	91.11	270.10	8,382.40	520.06	-1,696.19	1,697.09	0.00	0.00	0.00
10,300.00	91.11	270.10	8,380.46	520.23	-1,796.17	1,797.07	0.00	0.00	0.00
10,400.00	91.11	270.10	8,378.52	520.41	-1,896.15	1,897.05	0.00	0.00	0.00
10,500.00	91.11	270.10	8,376.57	520.59	-1,996.13	1,997.03	0.00	0.00	0.00
10,600.00	91.11	270.10	8,374.63	520.77	-2,096.11	2,097.02	0.00	0.00	0.00
10,700.00	91.11	270.10	8,372.70	520.95	-2,196.09	2,197.00	0.00	0.00	0.00
10,800.00	91.11	270.10	8,370.76	521.13	-2,296.07	2,296.98	0.00	0.00	0.00
10,900.00	91.11	270.10	8,368.82	521.31	-2,396.05	2,396.96	0.00	0.00	0.00
11,000.00	91.11	270.10	8,366.89	521.49	-2,496.03	2,496.94	0.00	0.00	0.00
11,100.00	91.11	270.10	8,364.95	521.67	-2,596.02	2,596.92	0.00	0.00	0.00
11,200.00	91.11	270.10	8,363.02	521.85	-2,696.00	2,696.90	0.00	0.00	0.00
11,300.00	91.11	270.10	8,361.09	522.03	-2,795.98	2,796.88	0.00	0.00	0.00
11,400.00	91.11	270.10	8,359.16	522.21	-2,895.96	2,896.87	0.00	0.00	0.00
11,500.00	91.10	270.10	8,357.23	522.39	-2,995.94	2,996.85	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,600.00	91.10	270.10	8,355.31	522.57	-3,095.92	3,096.83	0.00	0.00	0.00
11,700.00	91.10	270.10	8,353.38	522.75	-3,195.90	3,196.81	0.00	0.00	0.00
11,800.00	91.10	270.10	8,351.46	522.94	-3,295.88	3,296.79	0.00	0.00	0.00
11,900.00	91.10	270.10	8,349.53	523.12	-3,395.87	3,396.77	0.00	0.00	0.00
12,000.00	91.10	270.10	8,347.61	523.30	-3,495.85	3,496.75	0.00	0.00	0.00
12,100.00	91.10	270.10	8,345.69	523.48	-3,595.83	3,596.74	0.00	0.00	0.00
12,200.00	91.10	270.10	8,343.77	523.66	-3,695.81	3,696.72	0.00	0.00	0.00
12,300.00	91.10	270.10	8,341.86	523.84	-3,795.79	3,796.70	0.00	0.00	0.00
12,400.00	91.10	270.10	8,339.94	524.02	-3,895.77	3,896.68	0.00	0.00	0.00
12,500.00	91.10	270.10	8,338.03	524.20	-3,995.75	3,996.66	0.00	0.00	0.00
12,600.00	91.10	270.10	8,336.11	524.38	-4,095.74	4,096.64	0.00	0.00	0.00
12,700.00	91.10	270.10	8,334.20	524.56	-4,195.72	4,196.63	0.00	0.00	0.00
12,716.84	91.10	270.10	8,333.88	524.59	-4,212.55	4,213.46	0.00	0.00	0.00
PPP3 12716.84MD / 8333.88TVD									
12,800.00	91.10	270.10	8,332.29	524.74	-4,295.70	4,296.61	0.00	0.00	0.00
12,900.00	91.10	270.10	8,330.38	524.92	-4,395.68	4,396.59	0.00	0.00	0.00
13,000.00	91.10	270.10	8,328.47	525.10	-4,495.66	4,496.57	0.00	0.00	0.00
13,100.00	91.10	270.10	8,326.56	525.28	-4,595.64	4,596.55	0.00	0.00	0.00
13,200.00	91.10	270.10	8,324.65	525.46	-4,695.62	4,696.53	0.00	0.00	0.00
13,300.00	91.10	270.10	8,322.74	525.64	-4,795.61	4,796.52	0.00	0.00	0.00
13,400.00	91.10	270.10	8,320.82	525.82	-4,895.59	4,896.50	0.00	0.00	0.00
13,500.00	91.10	270.10	8,318.91	526.00	-4,995.57	4,996.48	0.00	0.00	0.00
13,600.00	91.10	270.10	8,317.00	526.19	-5,095.55	5,096.46	0.00	0.00	0.00
13,700.00	91.10	270.10	8,315.09	526.37	-5,195.53	5,196.44	0.00	0.00	0.00
13,800.00	91.10	270.10	8,313.18	526.55	-5,295.51	5,296.43	0.00	0.00	0.00
13,900.00	91.10	270.10	8,311.27	526.73	-5,395.50	5,396.41	0.00	0.00	0.00
13,954.43	91.10	270.10	8,310.23	526.83	-5,449.92	5,450.83	0.00	0.00	0.00
LTP/BHL at 13954.43									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - Mongo 25 Fed Cc	0.00	0.00	7,837.10	517.40	-217.22	433,402.17	634,493.17	32.191142	-104.032194
- plan misses target center by 520.81usft at 7885.80usft MD (7848.92 TVD, 456.45 N, 299.88 E)									
- Point									
LTP/BHL - Mongo 25 Fe	0.00	0.00	8,310.00	526.82	-5,449.92	433,411.59	629,260.47	32.191207	-104.049109
- plan misses target center by 0.23usft at 13954.43usft MD (8310.23 TVD, 526.83 N, -5449.92 E)									
- Point									
PPP3 - Mongo 25 Fed C	0.00	0.00	8,333.88	524.59	-4,212.55	433,409.36	630,497.84	32.191191	-104.045109
- plan hits target center									
- Point									
PPP2 - Mongo 25 Fed C	0.00	0.00	8,385.49	519.77	-1,537.52	433,404.54	633,172.87	32.191158	-104.036462
- plan hits target center									
- Point									
FTP - Mongo 25 Fed Co	0.00	0.00	8,410.00	517.49	-267.22	433,402.26	634,443.17	32.191142	-104.032356
- plan misses target center by 11.58usft at 8771.40usft MD (8410.05 TVD, 505.95 N, -268.23 E)									
- Point									

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
15.00	15.00	Rustler			
610.00	610.00	Salado			
1,175.00	1,175.00	Castille			
2,695.00	2,695.00	Lamar			
2,720.00	2,720.00	Delaware			
6,457.50	6,425.00	Bone Spring			
7,416.88	7,380.00	1st Bone Spring Sand			
7,761.88	7,725.00	2nd Bone Spring Carb			
8,247.86	8,185.00	2nd Bone Spring Sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,850.00	2,850.00	0.00	0.00	Start Nudge Build 2.00
3,249.90	3,248.60	23.29	15.31	8° at 3249.90 MD
6,774.99	6,739.40	433.15	284.69	Start Drop -2.00
7,174.88	7,138.00	456.44	300.00	Vertical at 7174.88 MD
7,873.98	7,837.10	456.44	300.00	KOP Start Build 10.00
8,785.14	8,409.95	507.15	-281.91	LP 91.12° Start DLS 2.00 TFO -89.95
9,028.95	8,405.20	517.95	-525.35	End of Turn at 9028.95 MD
10,041.30	8,385.49	519.77	-1,537.52	PPP2 10041.30MD / 8385.49TVD
12,716.84	8,333.88	524.59	-4,212.55	PPP3 12716.84MD / 8333.88TVD
13,954.43	8,310.23	526.83	-5,449.92	LTP/BHL at 13954.43

3R Operating, LLC

Eddy County, NM (NAD83)
Mongo 25 Fed Com
Mongo 25 Fed Com 502H

OH
Plan 1

Anticollision Report

15 April, 2025

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference Plan 1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,483.63usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 4/15/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,954.43	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Mongo 25 Fed Com						
Mongo 25 Fed Com 402H - OH - Plan 1	2,889.45	2,888.06	29.67	9.14	1.445	Collision Risk Procedures Re
Mongo 25 Fed Com 402H - OH - Plan 1	4,900.00	4,895.94	42.93	8.08	1.232	Collision Risk Procedures Re
Mongo 25 Fed Com 402H - OH - Plan 1	5,400.00	5,395.89	46.93	8.50	1.221	Collision Risk Procedures Re
Mongo 25 Fed Com 552H - OH - Plan 1	2,937.28	2,938.03	28.58	7.72	1.370	Collision Risk Procedures Re
Mongo 25 Fed Com 552H - OH - Plan 1	3,000.00	3,000.89	28.97	7.66	1.360	Collision Risk Procedures Re
Mongo 25 Fed Com 702H - OH - Plan 1	2,800.00	2,800.00	59.99	40.09	3.015	CC
Mongo 25 Fed Com 702H - OH - Plan 1	2,900.00	2,900.00	60.35	39.74	2.928	ES
Mongo 25 Fed Com 702H - OH - Plan 1	8,471.29	8,370.62	144.34	84.17	2.399	SF
Mongo 25 Fed Com 752H - OH - Plan 1	2,710.00	2,710.00	89.98	70.73	4.674	CC
Mongo 25 Fed Com 752H - OH - Plan 1	2,900.00	2,899.75	90.52	69.93	4.396	ES, SF

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS **Offset Well Error:** 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	1.00	0.00	0.00	-0.80	29.99	-0.42	30.01				
100.00	100.00	99.00	100.00	0.27	0.27	-0.80	29.99	-0.42	29.99	29.46	0.54	56.060	
200.00	200.00	199.00	200.00	0.63	0.62	-0.80	29.99	-0.42	29.99	28.74	1.25	23.974	
300.00	300.00	299.00	300.00	0.99	0.98	-0.80	29.99	-0.42	29.99	28.02	1.97	15.240	
400.00	400.00	399.00	400.00	1.34	1.34	-0.80	29.99	-0.42	29.99	27.31	2.68	11.171	
500.00	500.00	499.00	500.00	1.70	1.70	-0.80	29.99	-0.42	29.99	26.59	3.40	8.817	
600.00	600.00	599.00	600.00	2.06	2.06	-0.80	29.99	-0.42	29.99	25.87	4.12	7.282	
700.00	700.00	699.00	700.00	2.42	2.42	-0.80	29.99	-0.42	29.99	25.16	4.84	6.202	
800.00	800.00	799.00	800.00	2.78	2.77	-0.80	29.99	-0.42	29.99	24.44	5.55	5.401	
900.00	900.00	899.00	900.00	3.14	3.13	-0.80	29.99	-0.42	29.99	23.72	6.27	4.784	
1,000.00	1,000.00	999.00	1,000.00	3.50	3.49	-0.80	29.99	-0.42	29.99	23.01	6.99	4.293	
1,100.00	1,100.00	1,099.00	1,100.00	3.85	3.85	-0.80	29.99	-0.42	29.99	22.29	7.70	3.893	
1,200.00	1,200.00	1,199.00	1,200.00	4.21	4.21	-0.80	29.99	-0.42	29.99	21.57	8.42	3.562	
1,300.00	1,300.00	1,299.00	1,300.00	4.57	4.57	-0.80	29.99	-0.42	29.99	20.86	9.14	3.282	
1,400.00	1,400.00	1,399.00	1,400.00	4.93	4.93	-0.80	29.99	-0.42	29.99	20.14	9.85	3.044	
1,500.00	1,500.00	1,499.00	1,500.00	5.29	5.28	-0.80	29.99	-0.42	29.99	19.42	10.57	2.837	
1,600.00	1,600.00	1,599.00	1,600.00	5.65	5.64	-0.80	29.99	-0.42	29.99	18.70	11.29	2.657	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
1,700.00	1,700.00	1,699.00	1,700.00	6.00	6.00	-0.80	29.99	-0.42	29.99	17.99	12.01	2.498	
1,800.00	1,800.00	1,799.00	1,800.00	6.36	6.36	-0.80	29.99	-0.42	29.99	17.27	12.72	2.358	
1,900.00	1,900.00	1,899.00	1,900.00	6.72	6.72	-0.80	29.99	-0.42	29.99	16.55	13.44	2.232	
2,000.00	2,000.00	1,999.00	2,000.00	7.08	7.08	-0.80	29.99	-0.42	29.99	15.84	14.16	2.119	
2,100.00	2,100.00	2,099.00	2,100.00	7.44	7.43	-0.80	29.99	-0.42	29.99	15.12	14.87	2.017	
2,200.00	2,200.00	2,199.00	2,200.00	7.80	7.79	-0.80	29.99	-0.42	29.99	14.40	15.59	1.924	Collision Risk Procedures Req.
2,300.00	2,300.00	2,299.00	2,300.00	8.16	8.15	-0.80	29.99	-0.42	29.99	13.69	16.31	1.839	Collision Risk Procedures Req.
2,400.00	2,400.00	2,399.00	2,400.00	8.51	8.51	-0.80	29.99	-0.42	29.99	12.97	17.02	1.762	Collision Risk Procedures Req.
2,500.00	2,500.00	2,499.00	2,500.00	8.87	8.87	-0.80	29.99	-0.42	29.99	12.25	17.74	1.691	Collision Risk Procedures Req.
2,600.00	2,600.00	2,599.00	2,600.00	9.23	9.23	-0.80	29.99	-0.42	29.99	11.54	18.46	1.625	Collision Risk Procedures Req.
2,700.00	2,700.00	2,699.00	2,700.00	9.59	9.59	-0.80	29.99	-0.42	29.99	10.82	19.17	1.564	Collision Risk Procedures Req.
2,800.00	2,800.00	2,799.00	2,800.00	9.95	9.94	-0.80	29.99	-0.42	29.99	10.10	19.89	1.508	Collision Risk Procedures Req.
2,889.45	2,889.45	2,888.06	2,889.05	10.27	10.26	-34.82	30.24	-0.40	29.67	9.14	20.53	1.445	Collision Risk Procedures Req., CC
2,900.00	2,900.00	2,898.49	2,899.49	10.31	10.30	-34.50	30.40	-0.38	30.04	9.44	20.60	1.458	Collision Risk Procedures Req.
3,000.00	2,999.93	2,997.44	2,998.38	10.66	10.66	-37.47	33.77	-0.09	30.61	9.32	21.29	1.438	Collision Risk Procedures Req.
3,100.00	3,099.68	3,096.33	3,097.03	11.02	11.01	-43.04	40.53	0.50	32.01	10.05	21.96	1.457	Collision Risk Procedures Req.
3,200.00	3,199.13	3,195.11	3,195.28	11.37	11.36	-50.40	50.67	1.39	34.63	12.02	22.62	1.531	Collision Risk Procedures Req.
3,300.00	3,298.22	3,295.46	3,294.85	11.73	11.72	-57.61	62.86	3.65	37.28	13.91	23.37	1.595	Collision Risk Procedures Req.
3,400.00	3,397.24	3,396.11	3,394.72	12.08	12.07	-60.97	74.10	9.12	37.83	13.72	24.11	1.569	Collision Risk Procedures Req.
3,500.00	3,496.27	3,496.10	3,493.91	12.44	12.43	-63.23	84.98	15.49	37.78	12.95	24.83	1.522	Collision Risk Procedures Req.
3,531.90	3,527.86	3,527.99	3,525.55	12.55	12.54	-63.95	88.45	17.52	37.78	12.72	25.06	1.508	Collision Risk Procedures Req.
3,600.00	3,595.30	3,596.09	3,593.10	12.79	12.79	-65.49	95.86	21.85	37.79	12.25	25.54	1.480	Collision Risk Procedures Req.
3,700.00	3,694.32	3,696.07	3,692.29	13.15	13.14	-67.74	106.73	28.22	37.86	11.60	26.26	1.442	Collision Risk Procedures Req.
3,800.00	3,793.35	3,796.06	3,791.48	13.51	13.50	-69.98	117.61	34.58	37.99	11.01	26.98	1.408	Collision Risk Procedures Req.
3,900.00	3,892.38	3,896.05	3,890.68	13.86	13.86	-72.21	128.48	40.95	38.18	10.48	27.69	1.379	Collision Risk Procedures Req.
4,000.00	3,991.41	3,996.04	3,989.87	14.22	14.21	-74.41	139.36	47.31	38.42	10.01	28.41	1.352	Collision Risk Procedures Req.
4,100.00	4,090.43	4,096.03	4,089.06	14.58	14.57	-76.58	150.24	53.68	38.72	9.59	29.12	1.329	Collision Risk Procedures Req.
4,200.00	4,189.46	4,196.02	4,188.25	14.94	14.93	-78.71	161.11	60.04	39.07	9.23	29.84	1.309	Collision Risk Procedures Req.
4,300.00	4,288.49	4,296.01	4,287.44	15.30	15.29	-80.80	171.99	66.41	39.48	8.92	30.56	1.292	Collision Risk Procedures Req.
4,400.00	4,387.52	4,396.00	4,386.63	15.66	15.65	-82.85	182.87	72.77	39.93	8.66	31.27	1.277	Collision Risk Procedures Req.
4,500.00	4,486.54	4,495.99	4,485.82	16.02	16.01	-84.85	193.74	79.14	40.44	8.46	31.99	1.264	Collision Risk Procedures Req.
4,600.00	4,585.57	4,595.97	4,585.02	16.38	16.37	-86.79	204.62	85.50	41.00	8.29	32.70	1.254	Collision Risk Procedures Req.
4,700.00	4,684.60	4,695.96	4,684.21	16.74	16.73	-88.68	215.49	91.87	41.60	8.18	33.42	1.245	Collision Risk Procedures Req.
4,800.00	4,783.62	4,795.95	4,783.40	17.10	17.09	-90.52	226.37	98.24	42.24	8.11	34.13	1.238	Collision Risk Procedures Req.
4,900.00	4,882.65	4,895.94	4,882.59	17.47	17.45	-92.30	237.25	104.60	42.93	8.08	34.85	1.232	Collision Risk Procedures Req., ES
5,000.00	4,981.68	4,995.93	4,981.78	17.83	17.81	-94.02	248.12	110.97	43.66	8.09	35.57	1.228	Collision Risk Procedures Req.
5,100.00	5,080.71	5,095.92	5,080.97	18.19	18.17	-95.68	259.00	117.33	44.42	8.14	36.28	1.224	Collision Risk Procedures Req.
5,200.00	5,179.73	5,195.91	5,180.17	18.55	18.54	-97.29	269.87	123.70	45.23	8.23	37.00	1.222	Collision Risk Procedures Req.
5,300.00	5,278.76	5,295.90	5,279.36	18.92	18.90	-98.84	280.75	130.06	46.06	8.35	37.72	1.221	Collision Risk Procedures Req.
5,400.00	5,377.79	5,395.89	5,378.55	19.28	19.26	-100.33	291.63	136.43	46.93	8.50	38.43	1.221	Collision Risk Procedures Req., SF
5,500.00	5,476.82	5,495.87	5,477.74	19.64	19.62	-101.77	302.50	142.79	47.83	8.68	39.15	1.222	Collision Risk Procedures Req.
5,600.00	5,575.84	5,595.86	5,576.93	20.01	19.99	-103.15	313.38	149.16	48.76	8.89	39.87	1.223	Collision Risk Procedures Req.
5,700.00	5,674.87	5,695.85	5,676.12	20.37	20.35	-104.48	324.26	155.52	49.71	9.13	40.59	1.225	Collision Risk Procedures Req.
5,800.00	5,773.90	5,795.84	5,775.32	20.74	20.71	-105.76	335.13	161.89	50.69	9.39	41.31	1.227	Collision Risk Procedures Req.
5,900.00	5,872.93	5,895.83	5,874.51	21.10	21.07	-106.99	346.01	168.25	51.70	9.67	42.03	1.230	Collision Risk Procedures Req.
6,000.00	5,971.95	5,995.82	5,973.70	21.46	21.44	-108.18	356.88	174.62	52.73	9.98	42.75	1.234	Collision Risk Procedures Req.
6,100.00	6,070.98	6,095.81	6,072.89	21.83	21.80	-109.32	367.76	180.98	53.78	10.31	43.47	1.237	Collision Risk Procedures Req.
6,200.00	6,170.01	6,195.40	6,171.78	22.19	22.16	-111.19	377.92	186.93	55.09	10.90	44.19	1.247	Collision Risk Procedures Req.
6,300.00	6,269.03	6,294.57	6,270.58	22.56	22.52	-116.01	385.23	191.21	57.67	12.76	44.91	1.284	Collision Risk Procedures Req.
6,400.00	6,368.06	6,393.25	6,369.13	22.92	22.87	-123.15	389.58	193.75	62.29	16.67	45.62	1.365	Collision Risk Procedures Req.
6,500.00	6,467.09	6,491.23	6,467.09	23.29	23.22	-131.43	390.99	194.58	69.85	23.52	46.32	1.508	Collision Risk Procedures Req.
6,600.00	6,566.12	6,590.25	6,566.12	23.66	23.57	-138.91	390.99	194.58	79.78	32.74	47.05	1.696	Collision Risk Procedures Req.

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
6,700.00	6,665.14	6,689.28	6,665.14	24.02	23.93	-144.67	390.99	194.58	90.77	43.00	47.77	1.900	Collision Risk Procedures Req.
6,800.00	6,764.19	6,788.32	6,764.19	24.39	24.28	-149.16	390.99	194.58	102.38	53.88	48.50	2.111	
6,900.00	6,863.54	6,883.81	6,859.67	24.75	24.61	-151.98	391.04	194.08	112.74	63.64	49.10	2.296	
7,000.00	6,963.23	6,967.84	6,943.06	25.11	24.90	-151.03	392.05	184.49	129.12	80.14	48.99	2.636	
7,100.00	7,063.13	7,050.00	7,022.39	25.47	25.17	-147.37	394.26	163.48	154.65	106.20	48.44	3.192	
7,200.00	7,163.12	7,119.95	7,086.97	25.82	25.39	-110.00	397.06	136.86	189.58	142.80	46.77	4.053	
7,300.00	7,263.12	7,184.82	7,143.53	26.18	25.59	-106.07	400.37	105.35	235.23	190.27	44.96	5.232	
7,400.00	7,363.12	7,241.53	7,189.78	26.53	25.76	-103.04	403.80	72.74	290.62	247.58	43.04	6.752	
7,500.00	7,463.12	7,300.00	7,233.83	26.88	25.92	-100.38	407.81	34.54	354.13	312.23	41.90	8.452	
7,600.00	7,563.12	7,332.96	7,256.86	27.23	26.01	-99.08	410.27	11.10	423.54	384.04	39.50	10.722	
7,700.00	7,663.12	7,369.45	7,280.73	27.59	26.11	-97.79	413.16	-16.34	498.16	460.14	38.02	13.103	
7,800.00	7,763.12	7,400.00	7,299.33	27.94	26.19	-96.83	415.69	-40.44	576.77	540.07	36.69	15.718	
7,900.00	7,863.11	7,428.60	7,315.55	28.29	26.27	-10.32	418.15	-63.86	658.22	622.57	35.65	18.461	
8,000.00	7,962.10	7,450.00	7,326.90	28.62	26.32	-8.01	420.05	-81.90	735.14	700.92	34.21	21.487	
8,100.00	8,057.30	7,500.00	7,350.74	28.94	26.45	-6.32	424.64	-125.59	803.88	770.16	33.72	23.837	
8,200.00	8,145.81	7,520.79	7,359.51	29.25	26.50	-5.43	426.61	-144.34	863.30	831.27	32.02	26.957	
8,300.00	8,224.93	7,550.00	7,370.66	29.53	26.57	-4.78	429.43	-171.18	913.31	882.67	30.64	29.806	
8,400.00	8,292.28	7,600.00	7,386.51	29.79	26.69	-4.28	434.39	-218.33	953.26	923.38	29.88	31.905	
8,500.00	8,345.79	7,625.14	7,392.90	30.02	26.75	-4.00	436.93	-242.51	982.39	953.80	28.59	34.361	
8,600.00	8,383.84	7,650.00	7,398.16	30.24	26.81	-3.82	439.47	-266.67	1,001.00	973.38	27.62	36.240	
8,700.00	8,405.29	7,700.00	7,405.54	30.45	26.92	-3.71	444.64	-315.84	1,008.26	980.93	27.33	36.889	
8,800.00	8,409.66	7,733.62	7,408.06	30.63	26.99	-3.68	448.14	-349.17	1,004.78	977.63	27.15	37.005	
8,900.00	8,407.71	7,775.90	7,408.51	30.84	27.09	-3.55	452.54	-391.22	1,001.15	973.75	27.40	36.534	
9,000.00	8,405.76	7,873.74	7,407.38	31.10	27.33	-3.26	460.79	-488.69	1,000.04	972.09	27.95	35.778	
9,100.00	8,403.82	7,971.79	7,406.25	31.38	27.61	-3.00	465.70	-586.61	998.99	970.42	28.58	34.960	
9,200.00	8,401.87	8,070.19	7,405.11	31.71	27.93	-2.93	467.27	-684.99	998.12	968.86	29.26	34.111	
9,300.00	8,399.92	8,170.19	7,403.96	32.06	28.30	-2.93	467.45	-784.98	997.33	967.31	30.02	33.224	
9,400.00	8,397.98	8,270.18	7,402.81	32.46	28.70	-2.93	467.63	-884.97	996.54	965.70	30.83	32.319	
9,500.00	8,396.03	8,370.18	7,401.66	32.88	29.15	-2.93	467.81	-984.96	995.74	964.04	31.71	31.405	
9,600.00	8,394.08	8,470.18	7,400.51	33.34	29.62	-2.94	467.99	-1,084.95	994.95	962.32	32.63	30.490	
9,700.00	8,392.14	8,570.17	7,399.35	33.83	30.13	-2.94	468.16	-1,184.94	994.15	960.55	33.60	29.584	
9,800.00	8,390.19	8,670.17	7,398.20	34.35	30.67	-2.94	468.34	-1,284.93	993.36	958.74	34.62	28.692	
9,900.00	8,388.24	8,770.17	7,397.05	34.89	31.25	-2.94	468.52	-1,384.92	992.57	956.89	35.68	27.819	
10,000.00	8,386.29	8,870.16	7,395.90	35.47	31.85	-2.95	468.70	-1,484.91	991.77	955.00	36.77	26.970	
10,100.00	8,384.35	8,970.16	7,394.75	36.06	32.47	-2.95	468.87	-1,584.89	990.98	953.08	37.90	26.147	
10,200.00	8,382.40	9,070.15	7,393.59	36.68	33.13	-2.95	469.05	-1,684.88	990.19	951.13	39.06	25.351	
10,300.00	8,380.46	9,170.14	7,392.44	37.33	33.81	-2.95	469.23	-1,784.87	989.40	949.15	40.24	24.585	
10,400.00	8,378.52	9,270.14	7,391.29	38.00	34.51	-2.96	469.41	-1,884.85	988.61	947.15	41.46	23.847	
10,500.00	8,376.57	9,370.13	7,390.14	38.68	35.23	-2.96	469.59	-1,984.84	987.82	945.13	42.69	23.139	
10,600.00	8,374.63	9,470.12	7,388.98	39.39	35.98	-2.96	469.76	-2,084.82	987.04	943.09	43.95	22.460	
10,700.00	8,372.70	9,570.12	7,387.83	40.12	36.74	-2.96	469.94	-2,184.81	986.25	941.03	45.22	21.809	
10,800.00	8,370.76	9,670.11	7,386.67	40.86	37.52	-2.97	470.12	-2,284.80	985.47	938.96	46.52	21.186	
10,900.00	8,368.82	9,770.10	7,385.52	41.62	38.32	-2.97	470.30	-2,384.78	984.69	936.87	47.83	20.589	
11,000.00	8,366.89	9,870.09	7,384.36	42.40	39.13	-2.97	470.48	-2,484.77	983.91	934.76	49.15	20.018	
11,100.00	8,364.95	9,970.09	7,383.20	43.19	39.96	-2.97	470.66	-2,584.75	983.14	932.65	50.49	19.472	
11,200.00	8,363.02	10,070.08	7,382.05	44.00	40.80	-2.98	470.84	-2,684.74	982.36	930.52	51.84	18.949	
11,300.00	8,361.09	10,170.07	7,380.89	44.82	41.65	-2.98	471.02	-2,784.73	981.59	928.38	53.21	18.449	
11,400.00	8,359.16	10,270.06	7,379.73	45.65	42.52	-2.98	471.20	-2,884.71	980.82	926.24	54.58	17.970	
11,500.00	8,357.23	10,370.06	7,378.58	46.50	43.40	-2.98	471.38	-2,984.70	980.05	924.08	55.97	17.511	
11,600.00	8,355.31	10,470.05	7,377.42	47.35	44.29	-2.99	471.56	-3,084.68	979.28	921.92	57.36	17.072	
11,700.00	8,353.38	10,570.04	7,376.26	48.22	45.19	-2.99	471.74	-3,184.67	978.52	919.75	58.77	16.651	
11,800.00	8,351.46	10,670.04	7,375.10	49.09	46.10	-2.99	471.92	-3,284.65	977.75	917.58	60.18	16.248	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
11,900.00	8,349.53	10,770.03	7,373.94	49.98	47.02	-2.99	472.10	-3,384.64	976.99	915.40	61.60	15.861	
12,000.00	8,347.61	10,870.02	7,372.78	50.88	47.94	-2.99	472.28	-3,484.63	976.23	913.21	63.02	15.490	
12,100.00	8,345.69	10,970.02	7,371.62	51.78	48.88	-3.00	472.46	-3,584.61	975.47	911.02	64.46	15.134	
12,200.00	8,343.77	11,070.01	7,370.46	52.69	49.82	-3.00	472.64	-3,684.60	974.72	908.82	65.90	14.792	
12,300.00	8,341.86	11,170.00	7,369.30	53.61	50.77	-3.00	472.82	-3,784.59	973.96	906.62	67.34	14.463	
12,400.00	8,339.94	11,269.99	7,368.14	54.54	51.73	-3.00	473.00	-3,884.57	973.21	904.42	68.79	14.147	
12,500.00	8,338.03	11,369.99	7,366.97	55.47	52.69	-3.01	473.19	-3,984.56	972.46	902.21	70.25	13.843	
12,600.00	8,336.11	11,469.98	7,365.81	56.42	53.66	-3.01	473.37	-4,084.54	971.71	900.00	71.71	13.551	
12,700.00	8,334.20	11,569.97	7,364.65	57.36	54.63	-3.01	473.55	-4,184.53	970.96	897.79	73.17	13.269	
12,800.00	8,332.29	11,669.97	7,363.48	58.32	55.61	-3.01	473.73	-4,284.52	970.21	895.57	74.64	12.998	
12,900.00	8,330.38	11,769.98	7,362.32	59.28	56.60	-3.01	473.91	-4,384.52	969.47	893.35	76.12	12.737	
13,000.00	8,328.47	11,869.99	7,361.16	60.24	57.59	-3.02	474.09	-4,484.52	968.72	891.12	77.59	12.485	
13,100.00	8,326.56	11,969.99	7,360.00	61.21	58.58	-3.02	474.27	-4,584.52	967.97	888.89	79.07	12.241	
13,200.00	8,324.65	12,070.00	7,358.84	62.19	59.58	-3.02	474.46	-4,684.52	967.22	886.66	80.56	12.007	
13,300.00	8,322.74	12,170.01	7,357.68	63.17	60.59	-3.02	474.64	-4,784.52	966.46	884.42	82.04	11.780	
13,400.00	8,320.82	12,270.01	7,356.52	64.15	61.59	-3.03	474.82	-4,884.52	965.71	882.18	83.53	11.561	
13,500.00	8,318.91	12,370.02	7,355.37	65.14	62.60	-3.03	475.00	-4,984.52	964.96	879.93	85.03	11.349	
13,600.00	8,317.00	12,470.03	7,354.21	66.14	63.62	-3.03	475.18	-5,084.52	964.20	877.68	86.52	11.144	
13,700.00	8,315.09	12,570.03	7,353.06	67.13	64.64	-3.03	475.36	-5,184.52	963.45	875.42	88.02	10.945	
13,800.00	8,313.18	12,670.04	7,351.91	68.13	65.66	-3.04	475.53	-5,284.52	962.69	873.17	89.52	10.754	
13,900.00	8,311.27	12,770.05	7,350.75	69.14	66.68	-3.04	475.71	-5,384.52	961.93	870.91	91.03	10.568	
13,954.43	8,310.23	12,824.49	7,350.13	69.69	67.24	-3.04	475.81	-5,438.96	961.52	869.67	91.85	10.469	

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Anticollision Report

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Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-29.99	0.42	29.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-29.99	0.42	29.99	29.46	0.54	55.779	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-29.99	0.42	29.99	28.74	1.25	23.905	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-29.99	0.42	29.99	28.02	1.97	15.213	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-29.99	0.42	29.99	27.30	2.69	11.156	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-29.99	0.42	29.99	26.59	3.41	8.807	
524.13	524.13	524.13	524.13	1.79	1.79	179.20	-29.99	0.42	29.99	26.41	3.58	8.381	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-29.99	0.42	29.99	25.87	4.12	7.276	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-29.99	0.42	29.99	25.63	4.36	6.877	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-29.99	0.42	29.99	25.15	4.84	6.198	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-29.99	0.42	29.99	24.44	5.56	5.398	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-29.99	0.42	29.99	23.72	6.27	4.781	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-29.99	0.42	29.99	23.00	6.99	4.291	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-29.99	0.42	29.99	22.29	7.71	3.892	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-29.99	0.42	29.99	21.57	8.42	3.560	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-29.99	0.42	29.99	20.85	9.14	3.281	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-29.99	0.42	29.99	20.13	9.86	3.043	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-29.99	0.42	29.99	19.42	10.57	2.836	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-29.99	0.42	29.99	18.70	11.29	2.656	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-29.99	0.42	29.99	17.98	12.01	2.498	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-29.99	0.42	29.99	17.27	12.73	2.357	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-29.99	0.42	29.99	16.55	13.44	2.231	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-29.99	0.42	29.99	15.83	14.16	2.118	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-29.99	0.42	29.99	15.12	14.88	2.016	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-29.99	0.42	29.99	14.40	15.59	1.923	Collision Risk Procedures Req.
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-29.99	0.42	29.99	13.68	16.31	1.839	Collision Risk Procedures Req.
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-29.99	0.42	29.99	12.97	17.03	1.761	Collision Risk Procedures Req.
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-29.99	0.42	29.99	12.25	17.74	1.690	Collision Risk Procedures Req.
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-29.99	0.42	29.99	11.53	18.46	1.625	Collision Risk Procedures Req.
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-29.99	0.42	29.99	10.81	19.18	1.564	Collision Risk Procedures Req.
2,800.00	2,800.00	2,800.23	2,800.23	9.95	9.95	178.60	-29.81	0.73	29.82	9.93	19.89	1.499	Collision Risk Procedures Req.
2,900.00	2,900.00	2,900.64	2,900.57	10.31	10.30	139.92	-28.14	3.63	28.71	8.11	20.60	1.394	Collision Risk Procedures Req.
2,937.28	2,937.27	2,938.03	2,937.90	10.44	10.43	137.13	-27.07	5.48	28.58	7.72	20.86	1.370	Collision Risk Procedures Req., CC
3,000.00	2,999.93	3,000.89	3,000.58	10.66	10.65	131.90	-24.72	9.55	28.97	7.66	21.31	1.360	Collision Risk Procedures Req., ES, SF
3,100.00	3,099.68	3,100.95	3,100.11	11.02	11.00	123.08	-19.56	18.49	31.28	9.26	22.01	1.421	Collision Risk Procedures Req.
3,200.00	3,199.13	3,200.79	3,198.99	11.37	11.35	115.05	-12.68	30.40	35.78	13.06	22.72	1.575	Collision Risk Procedures Req.
3,300.00	3,298.22	3,300.49	3,297.35	11.73	11.70	109.31	-4.53	44.52	42.15	18.74	23.42	1.800	Collision Risk Procedures Req.
3,400.00	3,397.24	3,400.21	3,395.70	12.08	12.06	105.47	3.70	58.77	48.97	24.86	24.11	2.031	
3,500.00	3,496.27	3,501.12	3,495.25	12.44	12.42	102.54	12.50	72.75	55.31	30.48	24.83	2.228	
3,600.00	3,595.30	3,603.07	3,595.87	12.79	12.78	100.04	23.81	84.58	58.51	32.96	25.55	2.290	
3,700.00	3,694.32	3,704.22	3,695.65	13.15	13.14	97.54	37.39	94.07	58.58	32.32	26.25	2.231	
3,800.00	3,793.35	3,804.19	3,794.25	13.51	13.50	95.00	51.24	103.04	58.19	31.22	26.97	2.158	
3,900.00	3,892.38	3,904.15	3,892.85	13.86	13.86	92.43	65.08	112.01	57.91	30.23	27.68	2.092	
4,000.00	3,991.41	4,004.12	3,991.44	14.22	14.22	89.84	78.92	120.98	57.75	29.36	28.39	2.034	
4,083.34	4,073.94	4,087.43	4,073.61	14.52	14.52	87.68	90.45	128.46	57.71	28.73	28.98	1.991	Collision Risk Procedures Req.
4,100.00	4,090.43	4,104.08	4,090.04	14.58	14.58	87.25	92.76	129.95	57.71	28.61	29.10	1.983	Collision Risk Procedures Req.
4,200.00	4,189.46	4,204.05	4,188.63	14.94	14.94	84.65	106.60	138.92	57.79	27.98	29.82	1.938	Collision Risk Procedures Req.
4,300.00	4,288.49	4,304.02	4,287.23	15.30	15.30	82.07	120.44	147.89	57.99	27.46	30.53	1.900	Collision Risk Procedures Req.
4,400.00	4,387.52	4,403.98	4,385.82	15.66	15.66	79.51	134.28	156.86	58.30	27.07	31.24	1.866	Collision Risk Procedures Req.
4,500.00	4,486.54	4,503.95	4,484.42	16.02	16.02	76.98	148.13	165.83	58.73	26.78	31.95	1.838	Collision Risk Procedures Req.
4,600.00	4,585.57	4,603.91	4,583.01	16.38	16.38	74.49	161.97	174.80	59.28	26.61	32.66	1.815	Collision Risk Procedures Req.
4,700.00	4,684.60	4,703.88	4,681.61	16.74	16.74	72.06	175.81	183.77	59.93	26.55	33.38	1.796	Collision Risk Procedures Req.

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

Legacy Directional Drilling

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Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,800.00	4,783.62	4,803.84	4,780.21	17.10	17.11	69.68	189.65	192.74	60.69	26.59	34.09	1.780	Collision Risk Procedures Req.
4,900.00	4,882.65	4,903.81	4,878.80	17.47	17.47	67.36	203.49	201.72	61.54	26.74	34.81	1.768	Collision Risk Procedures Req.
5,000.00	4,981.68	5,003.78	4,977.40	17.83	17.84	65.11	217.33	210.69	62.50	26.98	35.52	1.760	Collision Risk Procedures Req.
5,100.00	5,080.71	5,103.74	5,075.99	18.19	18.20	62.93	231.17	219.66	63.55	27.32	36.24	1.754	Collision Risk Procedures Req.
5,200.00	5,179.73	5,203.71	5,174.59	18.55	18.56	60.82	245.02	228.63	64.69	27.74	36.96	1.751	Collision Risk Procedures Req.
5,300.00	5,278.76	5,303.67	5,273.18	18.92	18.93	58.79	258.86	237.60	65.92	28.24	37.68	1.750	Collision Risk Procedures Req.
5,400.00	5,377.79	5,403.64	5,371.78	19.28	19.30	56.84	272.70	246.57	67.22	28.83	38.40	1.751	Collision Risk Procedures Req.
5,500.00	5,476.82	5,503.60	5,470.37	19.64	19.66	54.96	286.54	255.54	68.60	29.48	39.12	1.754	Collision Risk Procedures Req.
5,600.00	5,575.84	5,603.57	5,568.97	20.01	20.03	53.16	300.38	264.51	70.05	30.21	39.84	1.758	Collision Risk Procedures Req.
5,700.00	5,674.87	5,703.54	5,667.57	20.37	20.39	51.43	314.22	273.48	71.57	31.00	40.57	1.764	Collision Risk Procedures Req.
5,800.00	5,773.90	5,803.50	5,766.16	20.74	20.76	49.78	328.06	282.45	73.15	31.85	41.29	1.771	Collision Risk Procedures Req.
5,900.00	5,872.93	5,903.47	5,864.76	21.10	21.13	48.20	341.90	291.42	74.78	32.76	42.02	1.780	Collision Risk Procedures Req.
6,000.00	5,971.95	6,003.43	5,963.35	21.46	21.49	46.68	355.75	300.39	76.48	33.73	42.75	1.789	Collision Risk Procedures Req.
6,100.00	6,070.98	6,103.40	6,061.95	21.83	21.86	45.24	369.59	309.36	78.22	34.74	43.48	1.799	Collision Risk Procedures Req.
6,200.00	6,170.01	6,203.36	6,160.54	22.19	22.23	43.85	383.43	318.33	80.01	35.80	44.21	1.810	Collision Risk Procedures Req.
6,300.00	6,269.03	6,303.33	6,259.14	22.56	22.60	42.53	397.27	327.30	81.84	36.90	44.94	1.821	Collision Risk Procedures Req.
6,400.00	6,368.06	6,403.30	6,357.74	22.92	22.96	41.27	411.11	336.27	83.72	38.05	45.67	1.833	Collision Risk Procedures Req.
6,500.00	6,467.09	6,503.26	6,456.33	23.29	23.33	40.06	424.95	345.24	85.64	39.23	46.41	1.845	Collision Risk Procedures Req.
6,600.00	6,566.12	6,603.23	6,554.93	23.66	23.70	38.90	438.79	354.22	87.59	40.45	47.14	1.858	Collision Risk Procedures Req.
6,700.00	6,665.14	6,703.19	6,653.52	24.02	24.07	37.80	452.64	363.19	89.57	41.70	47.88	1.871	Collision Risk Procedures Req.
6,800.00	6,764.19	6,803.16	6,752.11	24.39	24.44	36.71	466.48	372.16	91.68	43.07	48.61	1.886	Collision Risk Procedures Req.
6,900.00	6,863.54	6,903.01	6,850.60	24.75	24.81	34.84	480.30	381.12	95.87	46.52	49.35	1.943	Collision Risk Procedures Req.
7,000.00	6,963.23	7,002.63	6,948.85	25.11	25.17	32.10	494.10	390.06	103.09	53.00	50.09	2.058	
7,100.00	7,063.13	7,105.09	7,050.15	25.47	25.55	29.17	507.01	398.43	112.27	61.37	50.90	2.206	
7,200.00	7,163.12	7,208.25	7,152.62	25.82	25.93	60.01	516.95	404.87	121.53	69.86	51.67	2.352	
7,300.00	7,263.12	7,312.01	7,256.05	26.18	26.30	58.35	523.82	409.32	128.61	76.21	52.40	2.454	
7,400.00	7,363.12	7,416.23	7,360.17	26.53	26.67	57.53	527.55	411.74	132.48	79.40	53.07	2.496	
7,500.00	7,463.12	7,519.18	7,463.12	26.88	27.02	57.37	528.27	412.20	133.22	79.51	53.72	2.480	
7,600.00	7,563.12	7,619.18	7,563.12	27.23	27.37	57.37	528.27	412.20	133.22	78.81	54.42	2.448	
7,700.00	7,663.12	7,719.18	7,663.12	27.59	27.73	57.37	528.27	412.20	133.22	78.10	55.12	2.417	
7,800.00	7,763.12	7,819.18	7,763.12	27.94	28.08	57.37	528.27	412.20	133.22	77.40	55.82	2.386	
7,800.45	7,763.57	7,819.63	7,763.57	27.94	28.08	142.39	528.27	412.20	133.22	77.40	55.83	2.386	
7,900.00	7,863.11	7,919.18	7,863.11	28.29	28.43	142.52	528.27	412.20	133.69	77.17	56.52	2.365	
8,000.00	7,962.10	8,018.17	7,962.10	28.62	28.77	145.09	528.27	412.20	144.40	87.22	57.18	2.525	
8,100.00	8,057.30	8,113.37	8,057.30	28.94	29.11	149.51	528.27	412.20	170.22	112.42	57.79	2.945	
8,200.00	8,145.81	8,201.88	8,145.81	29.25	29.42	153.77	528.27	412.20	212.03	153.68	58.35	3.634	
8,300.00	8,224.93	8,281.00	8,224.93	29.53	29.83	156.72	528.27	412.20	269.32	210.48	58.84	4.577	
8,400.00	8,292.28	8,435.68	8,377.85	29.79	30.33	162.77	528.30	392.32	331.96	274.57	57.40	5.784	
8,500.00	8,345.79	8,660.19	8,577.73	30.02	30.99	168.25	528.48	293.26	382.99	333.01	49.98	7.663	
8,600.00	8,383.84	8,938.46	8,748.91	30.24	31.64	172.48	528.87	77.45	407.69	370.78	36.91	11.046	
8,700.00	8,405.29	9,225.38	8,800.76	30.45	32.16	175.75	529.37	-201.82	396.60	366.02	30.58	12.970	
8,797.64	8,410.80	9,322.37	8,799.64	30.63	32.34	176.89	529.55	-298.81	389.45	358.42	31.04	12.548	
8,800.00	8,409.66	9,324.75	8,799.61	30.63	32.35	176.96	529.55	-301.19	390.55	359.50	31.05	12.577	
8,900.00	8,407.71	9,424.55	8,798.45	30.84	32.58	177.85	529.73	-400.98	391.05	359.43	31.63	12.365	
9,000.00	8,405.76	9,524.50	8,797.30	31.10	32.84	178.23	529.91	-500.93	391.75	359.50	32.25	12.149	
9,100.00	8,403.82	9,624.50	8,796.14	31.38	33.15	178.25	530.09	-600.92	392.53	359.64	32.89	11.933	
9,200.00	8,401.87	9,724.50	8,794.98	31.71	33.48	178.25	530.27	-700.91	393.32	359.72	33.60	11.705	
9,300.00	8,399.92	9,824.49	8,793.82	32.06	33.85	178.25	530.45	-800.90	394.11	359.74	34.37	11.467	
9,400.00	8,397.98	9,924.49	8,792.67	32.46	34.25	178.26	530.63	-900.89	394.90	359.71	35.19	11.222	
9,500.00	8,396.03	10,024.49	8,791.51	32.88	34.68	178.26	530.81	-1,000.88	395.69	359.63	36.06	10.973	
9,600.00	8,394.08	10,124.48	8,790.35	33.34	35.15	178.27	530.99	-1,100.87	396.48	359.50	36.97	10.723	
9,700.00	8,392.14	10,224.48	8,789.19	33.83	35.64	178.27	531.17	-1,200.86	397.27	359.33	37.93	10.473	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
9,800.00	8,390.19	10,324.48	8,788.04	34.35	36.16	178.27	531.35	-1,300.85	398.05	359.12	38.93	10.224	
9,900.00	8,388.24	10,424.47	8,786.88	34.89	36.70	178.28	531.53	-1,400.84	398.84	358.88	39.97	9.979	
10,000.00	8,386.29	10,524.47	8,785.72	35.47	37.27	178.28	531.71	-1,500.83	399.63	358.60	41.04	9.739	
10,100.00	8,384.35	10,624.47	8,784.56	36.06	37.87	178.28	531.89	-1,600.82	400.42	358.28	42.14	9.503	
10,200.00	8,382.40	10,724.46	8,783.40	36.68	38.49	178.29	532.07	-1,700.81	401.21	357.94	43.27	9.273	
10,300.00	8,380.46	10,824.46	8,782.25	37.33	39.13	178.29	532.25	-1,800.80	402.00	357.57	44.42	9.049	
10,400.00	8,378.52	10,924.46	8,781.09	38.00	39.79	178.29	532.43	-1,900.79	402.78	357.18	45.60	8.832	
10,500.00	8,376.57	11,024.46	8,779.93	38.68	40.47	178.30	532.61	-2,000.78	403.56	356.75	46.81	8.622	
10,600.00	8,374.63	11,124.45	8,778.77	39.39	41.18	178.30	532.79	-2,100.77	404.35	356.31	48.03	8.418	
10,700.00	8,372.70	11,224.45	8,777.62	40.12	41.90	178.30	532.97	-2,200.76	405.13	355.85	49.28	8.221	
10,800.00	8,370.76	11,324.45	8,776.46	40.86	42.63	178.31	533.15	-2,300.75	405.91	355.36	50.54	8.031	
10,900.00	8,368.82	11,424.44	8,775.30	41.62	43.39	178.31	533.33	-2,400.74	406.68	354.86	51.82	7.848	
11,000.00	8,366.89	11,524.44	8,774.14	42.40	44.16	178.31	533.51	-2,500.73	407.46	354.34	53.12	7.671	
11,100.00	8,364.95	11,624.44	8,772.99	43.19	44.94	178.32	533.69	-2,600.72	408.24	353.81	54.43	7.501	
11,200.00	8,363.02	11,724.43	8,771.83	44.00	45.74	178.32	533.87	-2,700.71	409.01	353.26	55.75	7.337	
11,300.00	8,361.09	11,824.43	8,770.67	44.82	46.55	178.32	534.05	-2,800.70	409.78	352.70	57.09	7.178	
11,400.00	8,359.16	11,924.43	8,769.51	45.65	47.37	178.32	534.23	-2,900.69	410.55	352.12	58.43	7.026	
11,500.00	8,357.23	12,024.42	8,768.36	46.50	48.21	178.33	534.41	-3,000.68	411.33	351.53	59.79	6.879	
11,600.00	8,355.31	12,124.42	8,767.20	47.35	49.05	178.33	534.59	-3,100.67	412.09	350.93	61.16	6.738	
11,700.00	8,353.38	12,224.42	8,766.04	48.22	49.91	178.33	534.77	-3,200.66	412.86	350.32	62.54	6.602	
11,800.00	8,351.46	12,324.42	8,764.88	49.09	50.78	178.34	534.94	-3,300.65	413.63	349.70	63.92	6.471	
11,900.00	8,349.53	12,424.41	8,763.73	49.98	51.65	178.34	535.12	-3,400.64	414.39	349.07	65.32	6.344	
12,000.00	8,347.61	12,524.41	8,762.57	50.88	52.54	178.34	535.30	-3,500.63	415.16	348.43	66.72	6.222	
12,100.00	8,345.69	12,624.41	8,761.41	51.78	53.44	178.35	535.48	-3,600.62	415.92	347.79	68.13	6.105	
12,200.00	8,343.77	12,724.40	8,760.25	52.69	54.34	178.35	535.66	-3,700.61	416.68	347.13	69.55	5.991	
12,300.00	8,341.86	12,824.40	8,759.09	53.61	55.25	178.35	535.84	-3,800.60	417.44	346.47	70.97	5.882	
12,400.00	8,339.94	12,924.40	8,757.94	54.54	56.17	178.36	536.02	-3,900.59	418.20	345.80	72.40	5.776	
12,500.00	8,338.03	13,024.40	8,756.78	55.47	57.10	178.36	536.20	-4,000.58	418.95	345.12	73.83	5.674	
12,600.00	8,336.11	13,124.39	8,755.62	56.42	58.03	178.36	536.38	-4,100.57	419.71	344.43	75.28	5.576	
12,700.00	8,334.20	13,224.39	8,754.46	57.36	58.97	178.37	536.56	-4,200.56	420.46	343.74	76.72	5.480	
12,800.00	8,332.29	13,324.39	8,753.31	58.32	59.91	178.37	536.74	-4,300.55	421.21	343.04	78.17	5.388	
12,900.00	8,330.38	13,424.38	8,752.15	59.28	60.86	178.37	536.92	-4,400.54	421.97	342.34	79.63	5.299	
13,000.00	8,328.47	13,524.38	8,750.99	60.24	61.82	178.37	537.10	-4,500.53	422.72	341.64	81.08	5.213	
13,100.00	8,326.56	13,624.38	8,749.83	61.21	62.78	178.38	537.28	-4,600.52	423.47	340.93	82.55	5.130	
13,200.00	8,324.65	13,724.38	8,748.68	62.19	63.75	178.38	537.46	-4,700.51	424.23	340.21	84.01	5.049	
13,300.00	8,322.74	13,824.37	8,747.52	63.17	64.72	178.38	537.64	-4,800.50	424.98	339.50	85.48	4.971	
13,400.00	8,320.82	13,924.37	8,746.36	64.15	65.70	178.39	537.82	-4,900.49	425.73	338.77	86.96	4.896	
13,500.00	8,318.91	14,024.37	8,745.20	65.14	66.68	178.39	538.00	-5,000.48	426.49	338.05	88.44	4.823	
13,600.00	8,317.00	14,124.36	8,744.05	66.14	67.67	178.39	538.18	-5,100.47	427.24	337.32	89.92	4.752	
13,700.00	8,315.09	14,224.36	8,742.89	67.13	68.66	178.40	538.36	-5,200.46	427.99	336.59	91.40	4.683	
13,800.00	8,313.18	14,324.36	8,741.73	68.13	69.65	178.40	538.54	-5,300.45	428.75	335.86	92.89	4.616	
13,900.00	8,311.27	14,424.36	8,740.57	69.14	70.61	178.40	538.72	-5,400.44	429.50	335.22	94.28	4.555	
13,954.43	8,310.23	14,473.84	8,740.00	69.69	71.02	178.40	538.81	-5,449.92	429.94	335.11	94.83	4.534	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-59.98	0.84	59.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-59.98	0.84	59.99	59.45	0.54	111.558	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-59.98	0.84	59.99	58.73	1.25	47.811	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-59.98	0.84	59.99	58.01	1.97	30.425	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-59.98	0.84	59.99	57.30	2.69	22.312	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-59.98	0.84	59.99	56.58	3.41	17.615	
524.83	524.83	524.83	524.83	1.79	1.79	179.20	-59.98	0.84	59.99	56.40	3.58	16.740	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-59.98	0.84	59.99	55.86	4.12	14.551	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-59.98	0.84	59.99	55.62	4.36	13.754	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-59.98	0.84	59.99	55.15	4.84	12.395	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-59.98	0.84	59.99	54.43	5.56	10.796	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-59.98	0.84	59.99	53.71	6.27	9.562	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-59.98	0.84	59.99	53.00	6.99	8.581	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-59.98	0.84	59.99	52.28	7.71	7.783	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-59.98	0.84	59.99	51.56	8.42	7.121	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-59.98	0.84	59.99	50.84	9.14	6.562	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-59.98	0.84	59.99	50.13	9.86	6.085	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-59.98	0.84	59.99	49.41	10.57	5.672	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-59.98	0.84	59.99	48.69	11.29	5.312	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-59.98	0.84	59.99	47.98	12.01	4.995	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-59.98	0.84	59.99	47.26	12.73	4.714	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-59.98	0.84	59.99	46.54	13.44	4.462	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-59.98	0.84	59.99	45.83	14.16	4.236	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-59.98	0.84	59.99	45.11	14.88	4.032	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-59.98	0.84	59.99	44.39	15.59	3.847	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-59.98	0.84	59.99	43.68	16.31	3.678	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-59.98	0.84	59.99	42.96	17.03	3.523	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-59.98	0.84	59.99	42.24	17.74	3.381	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-59.98	0.84	59.99	41.52	18.46	3.249	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-59.98	0.84	59.99	40.81	19.18	3.128	
2,800.00	2,800.00	2,800.00	2,800.00	9.95	9.95	179.20	-59.98	0.84	59.99	40.09	19.90	3.015 CC	
2,804.45	2,804.45	2,804.45	2,804.45	9.96	9.96	145.88	-59.98	0.84	59.99	40.06	19.93	3.010	
2,900.00	2,900.00	2,900.00	2,900.00	10.31	10.31	146.11	-59.98	0.84	60.35	39.74	20.61	2.928 ES	
3,000.00	2,999.93	2,999.93	2,999.93	10.66	10.66	147.84	-59.98	0.84	63.27	41.95	21.33	2.967	
3,100.00	3,099.68	3,099.68	3,099.68	11.02	11.02	150.85	-59.98	0.84	69.28	47.24	22.04	3.144	
3,200.00	3,199.13	3,200.50	3,200.50	11.37	11.38	154.57	-59.54	0.86	78.15	55.40	22.75	3.435	
3,300.00	3,298.22	3,302.86	3,302.79	11.73	11.75	158.70	-55.91	0.98	87.05	63.60	23.45	3.712	
3,400.00	3,397.24	3,405.65	3,405.31	12.08	12.12	162.69	-48.59	1.24	93.26	69.13	24.13	3.865	
3,500.00	3,496.27	3,508.66	3,507.73	12.44	12.49	166.81	-37.57	1.62	96.41	71.63	24.79	3.890	
3,600.00	3,595.30	3,609.71	3,607.83	12.79	12.84	171.23	-23.81	2.10	97.28	71.80	25.48	3.818	
3,700.00	3,694.32	3,709.42	3,706.57	13.15	13.20	175.56	-9.94	2.59	98.44	72.24	26.20	3.757	
3,800.00	3,793.35	3,809.14	3,805.32	13.51	13.55	179.77	3.93	3.07	100.16	73.23	26.93	3.720	
3,900.00	3,892.38	3,908.86	3,904.07	13.86	13.91	-176.19	17.80	3.56	102.39	74.74	27.65	3.703	
4,000.00	3,991.41	4,008.58	4,002.82	14.22	14.26	-172.33	31.67	4.04	105.12	76.74	28.38	3.705	
4,100.00	4,090.43	4,108.30	4,101.56	14.58	14.62	-168.69	45.54	4.52	108.30	79.20	29.10	3.722	
4,200.00	4,189.46	4,208.01	4,200.31	14.94	14.97	-165.26	59.40	5.01	111.89	82.06	29.82	3.752	
4,300.00	4,288.49	4,307.73	4,299.06	15.30	15.33	-162.06	73.27	5.49	115.86	85.31	30.55	3.793	
4,400.00	4,387.52	4,407.45	4,397.81	15.66	15.69	-159.08	87.14	5.98	120.16	88.89	31.27	3.843	
4,500.00	4,486.54	4,507.17	4,496.55	16.02	16.05	-156.31	101.01	6.46	124.77	92.78	31.99	3.900	
4,600.00	4,585.57	4,606.88	4,595.30	16.38	16.41	-153.74	114.88	6.95	129.65	96.94	32.71	3.963	
4,700.00	4,684.60	4,706.60	4,694.05	16.74	16.77	-151.36	128.75	7.43	134.77	101.34	33.43	4.031	
4,800.00	4,783.62	4,806.32	4,792.80	17.10	17.12	-149.16	142.62	7.92	140.11	105.96	34.15	4.102	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,900.00	4,882.65	4,906.04	4,891.54	17.47	17.48	-147.12	156.49	8.40	145.64	110.76	34.87	4.176	
5,000.00	4,981.68	5,005.76	4,990.29	17.83	17.84	-145.24	170.36	8.88	151.34	115.74	35.59	4.252	
5,100.00	5,080.71	5,105.47	5,089.04	18.19	18.20	-143.49	184.23	9.37	157.19	120.87	36.31	4.329	
5,200.00	5,179.73	5,205.19	5,187.79	18.55	18.57	-141.87	198.10	9.85	163.17	126.14	37.03	4.406	
5,300.00	5,278.76	5,304.91	5,286.53	18.92	18.93	-140.36	211.97	10.34	169.28	131.53	37.75	4.484	
5,400.00	5,377.79	5,404.63	5,385.28	19.28	19.29	-138.96	225.84	10.82	175.50	137.02	38.47	4.561	
5,500.00	5,476.82	5,504.35	5,484.03	19.64	19.65	-137.66	239.71	11.31	181.81	142.62	39.19	4.639	
5,600.00	5,575.84	5,604.06	5,582.78	20.01	20.01	-136.44	253.58	11.79	188.21	148.30	39.91	4.715	
5,700.00	5,674.87	5,703.78	5,681.52	20.37	20.37	-135.31	267.45	12.27	194.69	154.06	40.63	4.791	
5,800.00	5,773.90	5,803.50	5,780.27	20.74	20.74	-134.24	281.32	12.76	201.24	159.89	41.36	4.866	
5,900.00	5,872.93	5,903.22	5,879.02	21.10	21.10	-133.25	295.19	13.24	207.86	165.78	42.08	4.940	
6,000.00	5,971.95	6,002.94	5,977.76	21.46	21.46	-132.32	309.06	13.73	214.53	171.73	42.80	5.013	
6,100.00	6,070.98	6,102.65	6,076.51	21.83	21.82	-131.44	322.93	14.21	221.26	177.74	43.52	5.084	
6,200.00	6,170.01	6,202.37	6,175.26	22.19	22.19	-130.61	336.80	14.70	228.04	183.80	44.24	5.155	
6,300.00	6,269.03	6,302.09	6,274.01	22.56	22.55	-129.84	350.67	15.18	234.86	189.90	44.96	5.224	
6,400.00	6,368.06	6,401.81	6,372.75	22.92	22.91	-129.10	364.54	15.66	241.72	196.03	45.68	5.291	
6,500.00	6,467.09	6,501.52	6,471.50	23.29	23.28	-128.41	378.41	16.15	248.62	202.21	46.41	5.357	
6,600.00	6,566.12	6,601.24	6,570.25	23.66	23.64	-127.76	392.28	16.63	255.55	208.42	47.13	5.422	
6,700.00	6,665.14	6,700.96	6,669.00	24.02	24.01	-127.14	406.14	17.12	262.51	214.66	47.85	5.486	
6,800.00	6,764.19	6,800.68	6,767.75	24.39	24.37	-126.56	420.01	17.60	269.44	220.87	48.57	5.547	
6,900.00	6,863.54	6,900.41	6,866.51	24.75	24.73	-125.64	433.89	18.09	274.93	225.64	49.29	5.578	
7,000.00	6,963.23	7,000.06	6,965.19	25.11	25.10	-124.16	447.75	18.57	278.54	228.53	50.01	5.570	
7,100.00	7,063.13	7,099.51	7,063.66	25.47	25.46	-122.09	461.58	19.05	280.47	229.75	50.72	5.530	
7,200.00	7,163.12	7,198.64	7,161.83	25.82	25.82	-86.14	475.37	19.53	281.11	229.68	51.43	5.466	
7,300.00	7,263.12	7,297.67	7,259.90	26.18	26.19	-83.34	489.14	20.02	281.91	229.77	52.14	5.407	
7,400.00	7,363.12	7,396.69	7,357.96	26.53	26.55	-80.56	502.91	20.50	283.39	230.54	52.85	5.362	
7,500.00	7,463.12	7,495.72	7,456.02	26.88	26.91	-77.82	516.69	20.98	285.54	231.98	53.56	5.331	
7,600.00	7,563.12	7,594.75	7,554.09	27.23	27.27	-75.12	530.46	21.46	288.35	234.08	54.27	5.313	
7,700.00	7,663.12	7,693.78	7,652.15	27.59	27.64	-72.48	544.23	21.94	291.80	236.81	54.98	5.307	
7,800.00	7,763.12	7,792.80	7,750.21	27.94	28.00	-69.90	558.01	22.42	295.86	240.16	55.70	5.312	
7,900.00	7,863.11	7,891.82	7,848.27	28.29	28.36	17.63	571.78	22.90	299.95	243.54	56.41	5.317	
8,000.00	7,962.10	7,989.95	7,945.44	28.62	28.72	21.15	585.43	23.38	292.76	235.66	57.10	5.127	
8,100.00	8,057.30	8,085.67	8,040.25	28.94	29.07	26.95	598.58	23.84	270.92	213.14	57.78	4.689	
8,200.00	8,145.81	8,177.08	8,131.02	29.25	29.41	36.34	609.36	24.21	236.24	177.78	58.45	4.041	
8,300.00	8,224.93	8,259.19	8,212.75	29.53	29.70	51.27	617.19	24.49	193.74	134.63	59.11	3.278	
8,400.00	8,292.28	8,329.28	8,282.64	29.79	29.96	71.86	622.49	24.67	155.51	95.73	59.78	2.601	
8,471.29	8,331.94	8,370.62	8,323.91	29.96	30.11	86.31	625.01	24.76	144.34	84.17	60.18	2.399 SF	
8,500.00	8,345.79	8,385.06	8,338.33	30.02	30.16	91.10	625.79	24.79	146.44	86.17	60.27	2.430	
8,600.00	8,383.84	8,424.78	8,378.00	30.24	30.30	100.85	627.64	24.85	185.04	124.74	60.30	3.069	
8,700.00	8,405.29	8,447.22	8,400.43	30.45	30.38	98.57	628.51	24.88	256.83	196.61	60.22	4.265	
8,800.00	8,409.66	8,451.93	8,405.14	30.63	30.40	85.86	628.67	24.89	343.39	283.24	60.15	5.709	
8,900.00	8,407.71	8,450.02	8,403.23	30.84	30.39	84.61	628.61	24.89	436.49	376.38	60.10	7.262	
9,000.00	8,405.76	8,447.99	8,401.19	31.10	30.38	82.84	628.53	24.88	532.96	472.88	60.08	8.871	
9,100.00	8,403.82	8,445.86	8,399.06	31.38	30.38	81.41	628.46	24.88	631.02	570.95	60.07	10.505	
9,200.00	8,401.87	8,443.72	8,396.92	31.71	30.37	80.33	628.38	24.88	729.63	669.57	60.06	12.148	
9,300.00	8,399.92	8,441.57	8,394.78	32.06	30.36	79.26	628.30	24.88	828.57	768.51	60.06	13.796	
9,400.00	8,397.98	8,439.42	8,392.64	32.46	30.35	78.19	628.22	24.87	927.72	867.67	60.06	15.448	
9,500.00	8,396.03	8,437.27	8,390.48	32.88	30.35	77.12	628.14	24.87	1,027.04	966.98	60.06	17.101	
9,600.00	8,394.08	8,435.12	8,388.33	33.34	30.34	76.06	628.06	24.87	1,126.48	1,066.42	60.06	18.757	
9,700.00	8,392.14	8,432.96	8,386.17	33.83	30.33	75.01	627.97	24.86	1,226.00	1,165.94	60.06	20.413	
9,800.00	8,390.19	8,430.79	8,384.01	34.35	30.32	73.96	627.89	24.86	1,325.59	1,265.52	60.06	22.069	
9,900.00	8,388.24	11,015.86	9,740.36	34.89	38.39	179.49	531.58	-1,424.85	1,352.48	1,311.89	40.59	33.321	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
10,000.00	8,386.29	11,115.86	9,738.25	35.47	38.86	179.49	531.75	-1,524.82	1,352.31	1,310.77	41.54	32.554	
10,100.00	8,384.35	11,215.86	9,736.13	36.06	39.35	179.49	531.92	-1,624.80	1,352.14	1,309.61	42.53	31.792	
10,200.00	8,382.40	11,315.86	9,734.01	36.68	39.87	179.49	532.09	-1,724.78	1,351.97	1,308.42	43.55	31.042	
10,300.00	8,380.46	11,415.86	9,731.90	37.33	40.42	179.49	532.26	-1,824.76	1,351.80	1,307.19	44.61	30.305	
10,400.00	8,378.52	11,515.86	9,729.78	38.00	40.98	179.49	532.44	-1,924.74	1,351.62	1,305.93	45.69	29.582	
10,500.00	8,376.57	11,615.86	9,727.66	38.68	41.57	179.49	532.61	-2,024.71	1,351.45	1,304.65	46.80	28.877	
10,600.00	8,374.63	11,715.86	9,725.55	39.39	42.18	179.49	532.79	-2,124.69	1,351.27	1,303.33	47.94	28.189	
10,700.00	8,372.70	11,815.86	9,723.43	40.12	42.81	179.49	532.96	-2,224.67	1,351.09	1,302.00	49.10	27.520	
10,800.00	8,370.76	11,915.87	9,721.31	40.86	43.47	179.49	533.14	-2,324.65	1,350.91	1,300.64	50.28	26.869	
10,900.00	8,368.82	12,015.87	9,719.20	41.62	44.14	179.49	533.31	-2,424.63	1,350.73	1,299.25	51.48	26.239	
11,000.00	8,366.89	12,115.87	9,717.08	42.40	44.82	179.49	533.49	-2,524.60	1,350.55	1,297.85	52.70	25.627	
11,100.00	8,364.95	12,215.87	9,714.96	43.19	45.53	179.49	533.67	-2,624.58	1,350.37	1,296.43	53.94	25.035	
11,200.00	8,363.02	12,315.87	9,712.85	44.00	46.25	179.49	533.85	-2,724.56	1,350.18	1,294.99	55.19	24.462	
11,300.00	8,361.09	12,415.87	9,710.73	44.82	46.99	179.49	534.03	-2,824.54	1,349.99	1,293.53	56.47	23.908	
11,400.00	8,359.16	12,515.87	9,708.61	45.65	47.74	179.49	534.21	-2,924.52	1,349.81	1,292.05	57.75	23.373	
11,500.00	8,357.23	12,615.87	9,706.49	46.50	48.50	179.49	534.39	-3,024.49	1,349.62	1,290.57	59.05	22.855	
11,600.00	8,355.31	12,715.87	9,704.38	47.35	49.28	179.49	534.57	-3,124.47	1,349.43	1,289.06	60.36	22.356	
11,700.00	8,353.38	12,815.87	9,702.26	48.22	50.07	179.49	534.75	-3,224.45	1,349.23	1,287.55	61.69	21.873	
11,800.00	8,351.46	12,915.87	9,700.14	49.09	50.88	179.49	534.93	-3,324.43	1,349.04	1,286.02	63.02	21.406	
11,900.00	8,349.53	13,015.87	9,698.02	49.98	51.70	179.49	535.11	-3,424.40	1,348.85	1,284.48	64.37	20.956	
12,000.00	8,347.61	13,115.87	9,695.91	50.88	52.52	179.49	535.30	-3,524.38	1,348.65	1,282.93	65.72	20.521	
12,100.00	8,345.69	13,215.87	9,693.79	51.78	53.36	179.49	535.48	-3,624.36	1,348.45	1,281.36	67.09	20.100	
12,200.00	8,343.77	13,315.87	9,691.67	52.69	54.21	179.49	535.67	-3,724.34	1,348.25	1,279.79	68.46	19.694	
12,300.00	8,341.86	13,415.87	9,689.55	53.61	55.07	179.49	535.85	-3,824.32	1,348.05	1,278.21	69.84	19.302	
12,400.00	8,339.94	13,515.87	9,687.44	54.54	55.93	179.49	536.04	-3,924.29	1,347.85	1,276.62	71.23	18.922	
12,500.00	8,338.03	13,615.87	9,685.32	55.47	56.81	179.49	536.23	-4,024.27	1,347.65	1,275.02	72.63	18.556	
12,600.00	8,336.11	13,715.87	9,683.20	56.42	57.69	179.49	536.41	-4,124.25	1,347.44	1,273.41	74.03	18.201	
12,700.00	8,334.20	13,815.87	9,681.08	57.36	58.59	179.49	536.60	-4,224.23	1,347.24	1,271.80	75.44	17.858	
12,800.00	8,332.29	13,915.87	9,678.96	58.32	59.49	179.49	536.79	-4,324.20	1,347.03	1,270.17	76.86	17.526	
12,900.00	8,330.38	14,015.87	9,676.85	59.28	60.39	179.49	536.98	-4,424.17	1,346.82	1,268.54	78.28	17.205	
13,000.00	8,328.47	14,115.86	9,674.73	60.24	61.31	179.49	537.16	-4,524.15	1,346.62	1,266.91	79.71	16.895	
13,100.00	8,326.56	14,215.86	9,672.61	61.21	62.23	179.49	537.34	-4,624.12	1,346.41	1,265.27	81.14	16.594	
13,200.00	8,324.65	14,315.86	9,670.50	62.19	63.15	179.49	537.52	-4,724.10	1,346.20	1,263.63	82.58	16.302	
13,300.00	8,322.74	14,415.85	9,668.38	63.17	64.09	179.49	537.70	-4,824.07	1,346.00	1,261.98	84.02	16.020	
13,400.00	8,320.82	14,515.85	9,666.26	64.15	65.03	179.49	537.88	-4,924.04	1,345.79	1,260.33	85.47	15.747	
13,500.00	8,318.91	14,615.85	9,664.15	65.14	65.97	179.49	538.06	-5,024.02	1,345.59	1,258.67	86.92	15.481	
13,600.00	8,317.00	14,715.84	9,662.03	66.14	66.92	179.49	538.23	-5,123.99	1,345.38	1,257.01	88.37	15.224	
13,691.42	8,315.26	14,807.26	9,660.10	67.05	67.79	179.49	538.39	-5,215.39	1,345.20	1,255.49	89.71	14.996	
13,700.00	8,315.09	14,811.84	9,660.00	67.13	67.84	179.49	538.40	-5,219.97	1,345.18	1,255.40	89.79	14.982	
13,800.00	8,313.18	14,811.84	9,660.00	68.13	67.84	179.49	538.40	-5,219.97	1,348.99	1,258.90	90.09	14.973	
13,900.00	8,311.27	14,811.84	9,660.00	69.14	67.84	179.49	538.40	-5,219.97	1,360.15	1,269.98	90.18	15.083	
13,954.43	8,310.23	14,811.84	9,660.00	69.69	67.84	179.49	538.40	-5,219.97	1,369.27	1,279.14	90.13	15.192	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-89.97	1.26	89.98				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-89.97	1.26	89.98	89.44	0.54	167.338	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-89.97	1.26	89.98	88.72	1.25	71.716	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-89.97	1.26	89.98	88.01	1.97	45.638	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-89.97	1.26	89.98	87.29	2.69	33.468	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-89.97	1.26	89.98	86.57	3.41	26.422	
524.72	524.72	524.72	524.72	1.79	1.79	179.20	-89.97	1.26	89.98	86.40	3.58	25.115	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-89.97	1.26	89.98	85.86	4.12	21.827	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-89.97	1.26	89.98	85.62	4.36	20.631	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-89.97	1.26	89.98	85.14	4.84	18.593	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-89.97	1.26	89.98	84.42	5.56	16.194	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-89.97	1.26	89.98	83.71	6.27	14.343	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-89.97	1.26	89.98	82.99	6.99	12.872	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-89.97	1.26	89.98	82.27	7.71	11.675	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-89.97	1.26	89.98	81.55	8.42	10.681	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-89.97	1.26	89.98	80.84	9.14	9.843	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-89.97	1.26	89.98	80.12	9.86	9.128	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-89.97	1.26	89.98	79.40	10.57	8.509	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-89.97	1.26	89.98	78.69	11.29	7.968	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-89.97	1.26	89.98	77.97	12.01	7.493	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-89.97	1.26	89.98	77.25	12.73	7.071	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-89.97	1.26	89.98	76.54	13.44	6.694	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-89.97	1.26	89.98	75.82	14.16	6.355	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-89.97	1.26	89.98	75.10	14.88	6.048	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-89.97	1.26	89.98	74.39	15.59	5.770	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-89.97	1.26	89.98	73.67	16.31	5.517	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-89.97	1.26	89.98	72.95	17.03	5.284	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-89.97	1.26	89.98	72.23	17.74	5.071	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-89.97	1.26	89.98	71.52	18.46	4.874	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-89.97	1.26	89.98	70.80	19.18	4.692	
2,710.00	2,710.00	2,710.00	2,710.00	9.62	9.62	179.20	-89.97	1.26	89.98	70.73	19.25	4.674	CC
2,800.00	2,800.00	2,799.95	2,799.95	9.95	9.94	178.92	-89.98	1.70	89.99	70.10	19.89	4.524	
2,900.00	2,900.00	2,899.75	2,899.68	10.31	10.28	143.55	-90.02	5.17	90.52	69.93	20.59	4.396	ES, SF
3,000.00	2,999.93	2,999.28	2,998.97	10.66	10.63	140.55	-90.10	12.10	93.91	72.63	21.29	4.412	
3,100.00	3,099.68	3,098.68	3,097.87	11.02	10.97	137.33	-90.22	22.04	100.64	78.66	21.98	4.578	
3,200.00	3,199.13	3,198.17	3,196.81	11.37	11.31	135.53	-90.35	32.45	110.18	87.50	22.68	4.858	
3,300.00	3,298.22	3,297.48	3,295.57	11.73	11.66	135.07	-90.47	42.83	121.94	98.56	23.38	5.216	
3,400.00	3,397.24	3,396.75	3,394.30	12.08	12.00	134.90	-90.60	53.21	134.00	109.93	24.08	5.566	
3,500.00	3,496.27	3,496.01	3,493.02	12.44	12.35	134.76	-90.72	63.59	146.07	121.29	24.78	5.896	
3,600.00	3,595.30	3,595.35	3,591.81	12.79	12.70	134.63	-90.85	73.97	158.13	132.66	25.48	6.207	
3,700.00	3,694.32	3,695.87	3,691.96	13.15	13.05	135.17	-90.95	82.54	169.79	143.60	26.19	6.483	
3,800.00	3,793.35	3,796.33	3,792.29	13.51	13.40	136.74	-91.01	87.59	180.81	153.91	26.90	6.721	
3,900.00	3,892.38	3,896.44	3,892.38	13.86	13.75	139.17	-91.03	89.12	191.43	163.83	27.61	6.934	
4,000.00	3,991.41	3,995.46	3,991.41	14.22	14.10	141.73	-91.03	89.12	202.21	173.89	28.32	7.141	
4,100.00	4,090.43	4,094.49	4,090.43	14.58	14.45	144.04	-91.03	89.12	213.34	184.31	29.03	7.349	
4,200.00	4,189.46	4,193.52	4,189.46	14.94	14.81	146.12	-91.03	89.12	224.79	195.05	29.74	7.558	
4,300.00	4,288.49	4,292.55	4,288.49	15.30	15.16	147.99	-91.03	89.12	236.50	206.05	30.46	7.765	
4,400.00	4,387.52	4,391.57	4,387.52	15.66	15.51	149.69	-91.03	89.12	248.44	217.27	31.17	7.970	
4,500.00	4,486.54	4,490.60	4,486.54	16.02	15.87	151.23	-91.03	89.12	260.58	228.69	31.88	8.173	
4,600.00	4,585.57	4,589.63	4,585.57	16.38	16.22	152.63	-91.03	89.12	272.88	240.28	32.60	8.371	
4,700.00	4,684.60	4,688.65	4,684.60	16.74	16.57	153.92	-91.03	89.12	285.33	252.02	33.31	8.565	
4,800.00	4,783.62	4,787.68	4,783.62	17.10	16.93	155.09	-91.03	89.12	297.91	263.89	34.03	8.755	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,900.00	4,882.65	4,886.71	4,882.65	17.47	17.28	156.17	-91.03	89.12	310.61	275.87	34.74	8.940	
5,000.00	4,981.68	4,985.74	4,981.68	17.83	17.64	157.16	-91.03	89.12	323.41	287.95	35.46	9.121	
5,100.00	5,080.71	5,084.76	5,080.71	18.19	17.99	158.08	-91.03	89.12	336.29	300.12	36.17	9.296	
5,200.00	5,179.73	5,183.79	5,179.73	18.55	18.34	158.93	-91.03	89.12	349.25	312.36	36.89	9.467	
5,300.00	5,278.76	5,282.82	5,278.76	18.92	18.70	159.72	-91.03	89.12	362.29	324.68	37.61	9.633	
5,400.00	5,377.79	5,381.85	5,377.79	19.28	19.05	160.46	-91.03	89.12	375.39	337.06	38.32	9.795	
5,500.00	5,476.82	5,480.87	5,476.82	19.64	19.41	161.14	-91.03	89.12	388.54	349.50	39.04	9.952	
5,600.00	5,575.84	5,579.90	5,575.84	20.01	19.76	161.79	-91.03	89.12	401.74	361.99	39.76	10.105	
5,700.00	5,674.87	5,678.93	5,674.87	20.37	20.11	162.39	-91.03	89.12	415.00	374.52	40.48	10.253	
5,800.00	5,773.90	5,777.96	5,773.90	20.74	20.47	162.95	-91.03	89.12	428.29	387.10	41.19	10.397	
5,900.00	5,872.93	5,876.98	5,872.93	21.10	20.82	163.48	-91.03	89.12	441.62	399.71	41.91	10.537	
6,000.00	5,971.95	5,976.01	5,971.95	21.46	21.18	163.97	-91.03	89.12	454.99	412.36	42.63	10.673	
6,100.00	6,070.98	6,075.04	6,070.98	21.83	21.53	164.44	-91.03	89.12	468.39	425.04	43.35	10.805	
6,200.00	6,170.01	6,174.06	6,170.01	22.19	21.89	164.89	-91.03	89.12	481.81	437.75	44.07	10.934	
6,300.00	6,269.03	6,273.09	6,269.03	22.56	22.24	165.31	-91.03	89.12	495.27	450.48	44.79	11.059	
6,400.00	6,368.06	6,372.12	6,368.06	22.92	22.59	165.70	-91.03	89.12	508.75	463.24	45.50	11.180	
6,500.00	6,467.09	6,471.15	6,467.09	23.29	22.95	166.08	-91.03	89.12	522.25	476.03	46.22	11.298	
6,600.00	6,566.12	6,570.17	6,566.12	23.66	23.30	166.44	-91.03	89.12	535.77	488.83	46.94	11.413	
6,700.00	6,665.14	6,669.20	6,665.14	24.02	23.66	166.78	-91.03	89.12	549.31	501.65	47.66	11.525	
6,800.00	6,764.19	6,768.24	6,764.19	24.39	24.01	167.12	-91.03	89.12	562.77	514.39	48.38	11.632	
6,900.00	6,863.54	6,867.60	6,863.54	24.75	24.37	167.42	-91.03	89.12	573.81	524.71	49.10	11.686	
7,000.00	6,963.23	6,967.28	6,963.23	25.11	24.72	167.62	-91.03	89.12	581.47	531.65	49.82	11.672	
7,100.00	7,063.13	7,067.18	7,063.13	25.47	25.08	167.73	-91.03	89.12	585.73	535.19	50.53	11.591	
7,200.00	7,163.12	7,167.17	7,163.12	25.82	25.44	-158.93	-91.03	89.12	586.68	535.44	51.25	11.448	
7,300.00	7,263.12	7,267.17	7,263.12	26.18	25.80	-158.93	-91.03	89.12	586.68	534.73	51.96	11.292	
7,400.00	7,363.12	7,367.17	7,363.12	26.53	26.16	-158.93	-91.03	89.12	586.68	534.02	52.67	11.140	
7,500.00	7,463.12	7,467.17	7,463.12	26.88	26.51	-158.93	-91.03	89.12	586.68	533.30	53.38	10.991	
7,600.00	7,563.12	7,567.17	7,563.12	27.23	26.87	-158.93	-91.03	89.12	586.68	532.59	54.09	10.847	
7,700.00	7,663.12	7,667.17	7,663.12	27.59	27.23	-158.93	-91.03	89.12	586.68	531.88	54.80	10.706	
7,800.00	7,763.12	7,767.17	7,763.12	27.94	27.59	-158.93	-91.03	89.12	586.68	531.17	55.51	10.569	
7,900.00	7,863.11	7,867.17	7,863.11	28.29	27.95	-73.99	-91.03	89.12	586.52	530.30	56.22	10.433	
8,000.00	7,962.10	7,966.16	7,962.10	28.62	28.30	-75.56	-91.03	89.12	583.01	526.11	56.90	10.246	
8,100.00	8,057.30	8,061.36	8,057.30	28.94	28.64	-79.01	-91.03	89.12	576.04	518.48	57.56	10.007	
8,200.00	8,145.81	8,149.86	8,145.81	29.25	28.96	-83.83	-91.03	89.12	568.33	510.14	58.19	9.767	
8,300.00	8,224.93	8,228.99	8,224.93	29.53	29.24	-89.15	-91.03	89.12	563.83	505.06	58.76	9.595	
8,316.50	8,236.92	8,240.97	8,236.92	29.57	29.28	-90.00	-91.03	89.12	563.71	504.86	58.85	9.579	
8,400.00	8,292.28	8,296.33	8,292.28	29.79	29.48	-93.85	-91.03	89.12	567.16	507.89	59.27	9.569	
8,500.00	8,345.79	8,349.85	8,345.79	30.02	29.67	-96.83	-91.03	89.12	582.50	522.82	59.68	9.760	
8,600.00	8,383.84	8,387.90	8,383.84	30.24	29.81	-97.23	-91.03	89.12	612.31	552.34	59.97	10.210	
8,700.00	8,405.29	8,409.35	8,405.29	30.45	29.89	-94.40	-91.03	89.12	656.57	596.45	60.12	10.921	
8,800.00	8,409.66	8,413.72	8,409.66	30.63	29.90	-89.15	-91.03	89.12	712.87	652.73	60.13	11.855	
8,900.00	8,407.71	8,411.77	8,407.71	30.84	29.90	-89.02	-91.03	89.12	776.44	716.34	60.11	12.918	
9,000.00	8,405.76	8,409.82	8,405.76	31.10	29.89	-88.90	-91.03	89.12	844.67	784.60	60.08	14.060	
9,100.00	8,403.82	8,407.87	8,403.82	31.38	29.88	-88.74	-91.03	89.12	917.03	856.99	60.05	15.272	
9,200.00	8,401.87	8,405.93	8,401.87	31.71	29.88	-88.56	-91.03	89.12	994.10	934.08	60.02	16.562	
9,300.00	8,399.92	8,403.98	8,399.92	32.06	29.87	-88.37	-91.03	89.12	1,074.95	1,014.95	60.00	17.915	
9,400.00	8,397.98	8,402.03	8,397.98	32.46	29.86	-88.19	-91.03	89.12	1,158.79	1,098.81	59.99	19.318	
9,500.00	8,396.03	8,400.09	8,396.03	32.88	29.85	-88.01	-91.03	89.12	1,245.02	1,185.05	59.97	20.760	
9,600.00	8,394.08	8,398.14	8,394.08	33.34	29.85	-87.82	-91.03	89.12	1,333.17	1,273.21	59.96	22.234	
9,700.00	8,392.14	8,396.19	8,392.14	33.83	29.84	-87.64	-91.03	89.12	1,422.88	1,362.93	59.95	23.733	

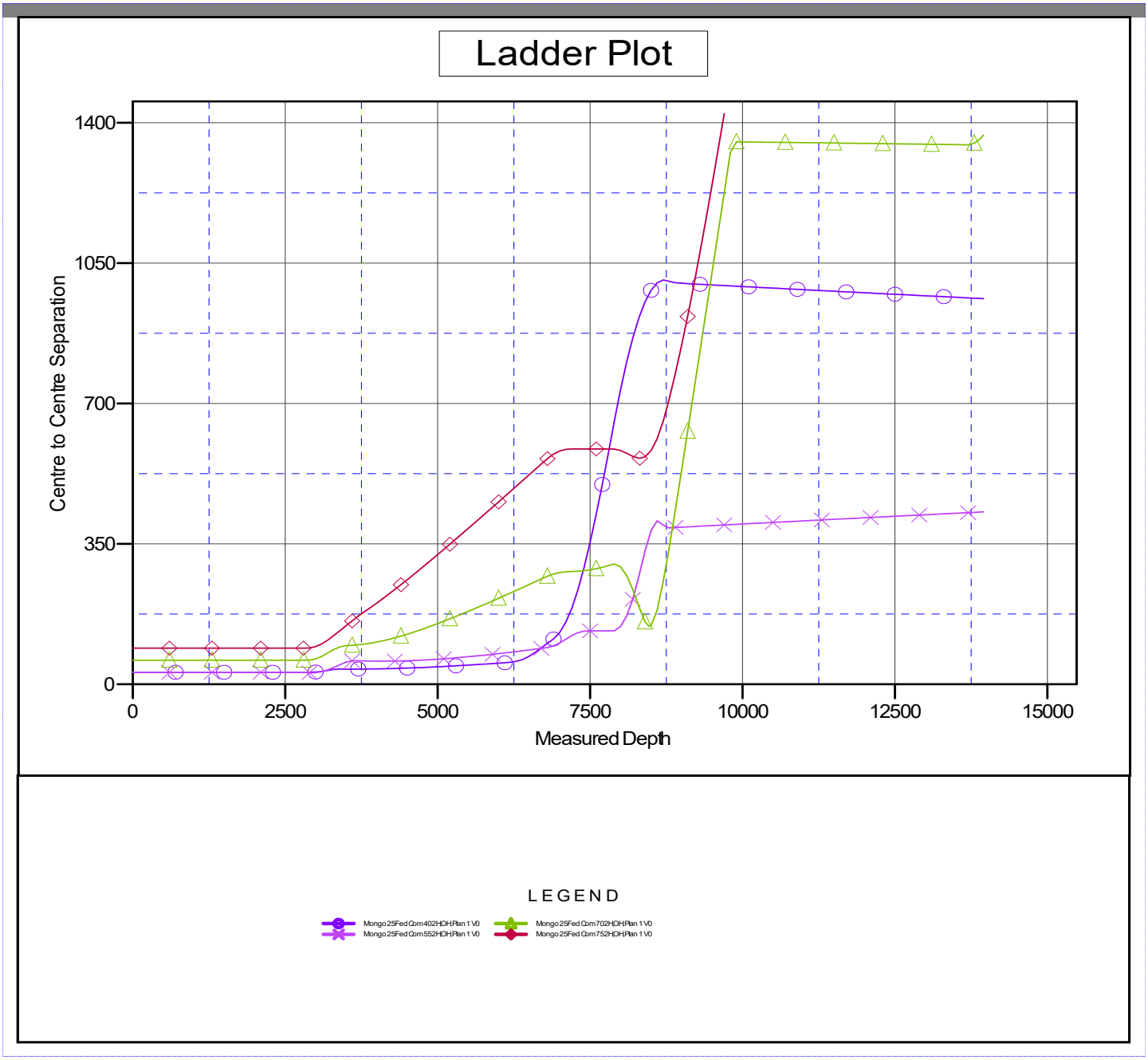
Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Mongo 25 Fed Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

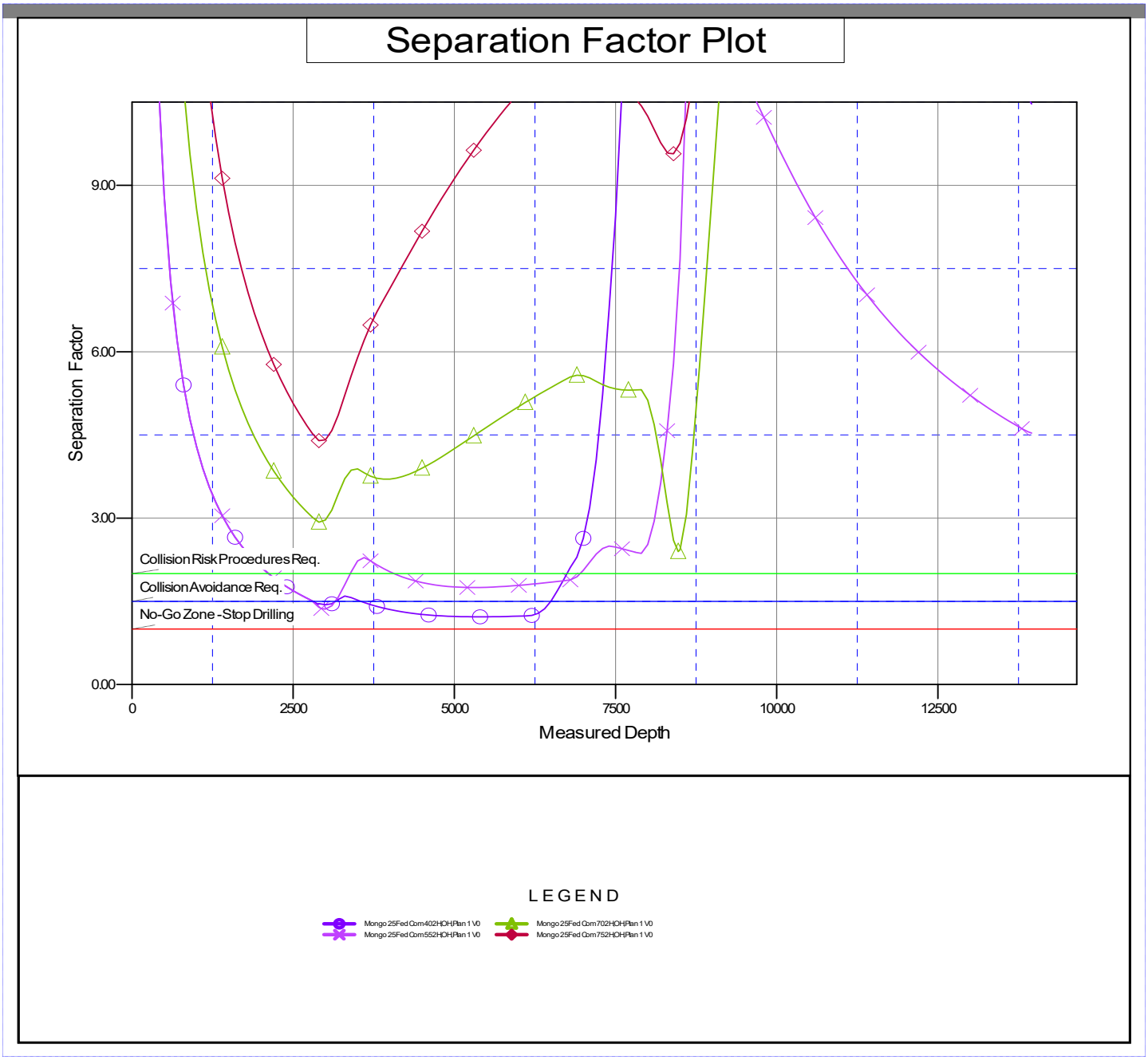


Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft	Coordinates are relative to: Mongo 25 Fed Com 502H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.333334	Grid Convergence at Surface is: 0.16°



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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-015-56625	64450	WILLOW LAKE; BONE SPRING	
Property Code	Property Name		Well Number
	MONGO 25 FED COM		502H
OGRID No. 331569	Operator Name	3R OPERATING, LLC	Ground Level Elevation 2925.0
Surface Owner: ☐State ☐Fee ☐Tribal ☒Federal		Mineral Owner: ☐State ☐Fee ☐Tribal ☒Federal	

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	30	24 S	29 E	2	2200 NORTH	160 WEST	32.1897175°N	104.0314963°W	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	25	24 S	28 E		1682 NORTH	100 WEST	32.1912065°N	104.0491064°W	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
160	Infill	30-015-56624	Y	C
Order Numbers. NSP pending with NMOCD			Well setbacks are under Common Ownership: ☒Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
H	25	24 S	28 E		1682 NORTH	50 EAST	32.1911415°N	104.0321938°W	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
H	25	24 S	28 E		1682 NORTH	100 EAST	32.1911421°N	104.0323554°W	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	25	24 S	28 E		1682 NORTH	100 WEST	32.1912065°N	104.0491090°W	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒Horizontal ☐Vertical	Ground Floor Elevation:
Y		N/A

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best ofmy knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest run leased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order here to fore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Austin Tramell 05/05/2025

Signature Date

Austin Tramell

Printed Name

atramell@3roperating.com

Email Address

SURVEYOR CERTIFICATIONS

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

Signature and Seal of Professional Surveyor

FILIMON F. JARAMILLO

CertificateNumber	Dateof Survey
PLS 12797	MARCH 31, 2025 SURVEY NO. 10330B

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

ACREAGE DEDICATION PLATS

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

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

MONGO 25 FED COM 502H
EL. = 2925.5

LEGEND
SECTION LINE
QUARTER LINE
LEASE LINE
WELL PATH

GEODETIC COORDINATES
NAD 83 NMSP EAST
SURFACE LOCATION
2200' FNL, 160' FWL
N.=432884.77
E.=634710.39
LAT.=32.1897175°N
LONG.=104.0314963°W

KICK OFF POINT
1682' FNL, 50' FEL
N.=433402.17
E.=634493.17
LAT.=32.1911415°N
LONG.=104.0321938°W

FIRST TAKE POINT
1682' FNL, 100' FEL
N.=433402.26
E.=634443.17
LAT.=32.1911421°N
LONG.=104.0323554°W

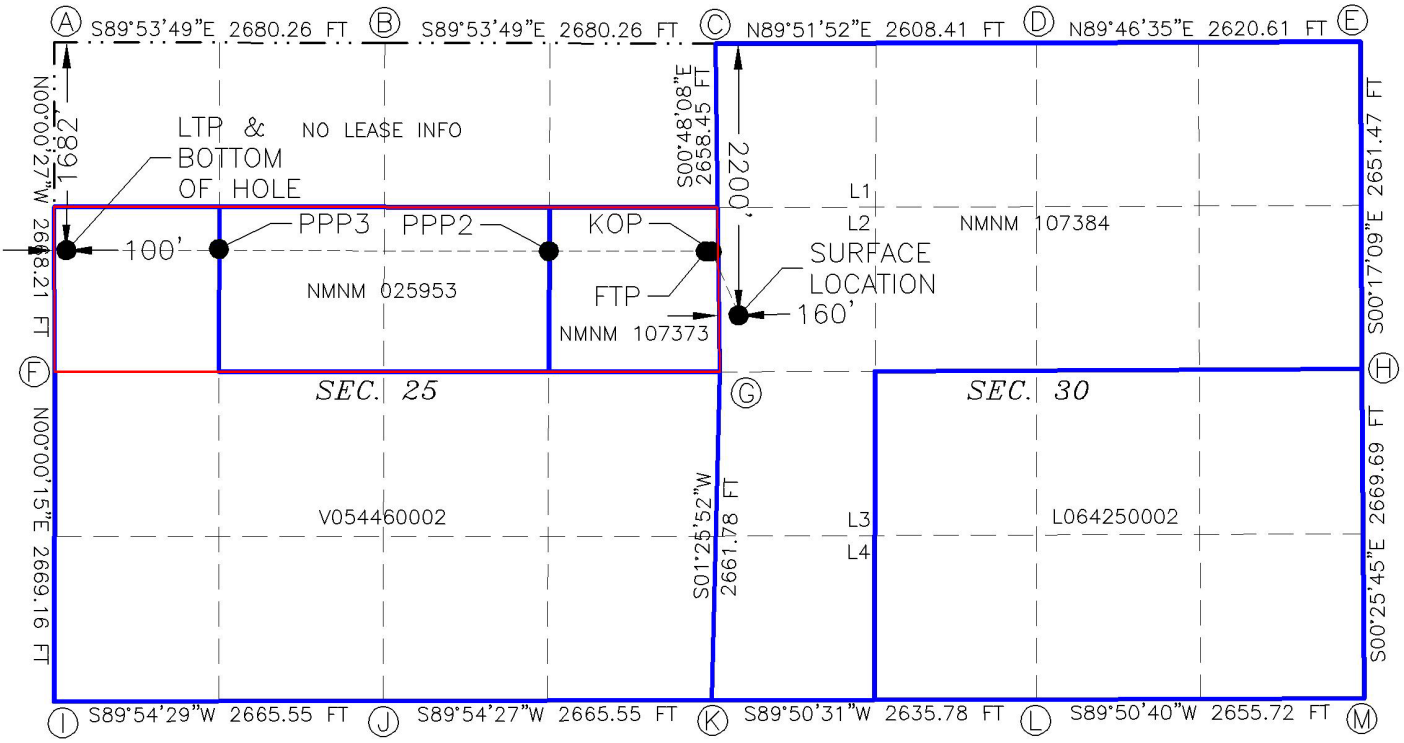
LAST TAKE POINT
1682' FNL, 100' FWL
N.=433411.59
E.=629260.47
LAT.=32.1912065°N
LONG.=104.0491090°W

BOTTOM OF HOLE
1682' FNL, 100' FWL
N.=433411.59
E.=629260.47
LAT.=32.1912065°N
LONG.=104.0491090°W

PPP2
1682' FNL, 1370' FEL
N.=433404.54
E.=633172.87
LAT.=32.1911581°N
LONG.=104.0364618°W

PPP3
1682' FNL, 1338' FWL
N.=433409.36
E.=630497.84
LAT.=32.1911913°N
LONG.=104.0451091°W

CORNER COORDINATES TABLE
NAD 83 NMSP EAST
A – N.=435093.40 E.=629160.27
B – N.=435088.58 E.=631839.95
C – N.=435083.75 E.=634519.62
D – N.=435091.27 E.=637126.06
E – N.=435100.14 E.=639747.47
F – N.=432425.77 E.=629160.62
G – N.=432426.14 E.=634556.83
H – N.=432449.28 E.=639760.68
I – N.=429757.19 E.=629160.43
J – N.=429761.47 E.=631825.40
K – N.=429765.77 E.=634490.37
L – N.=429773.04 E.=637125.56
M – N.=429780.25 E.=639780.68



Drilling Plan

Operator

3R Operating, LLC

Project Name

MONGO 25 FED COM 502H
SHL: 2200 FNL & 160' FWL of Section 30-24S-29E, Eddy County, NM
BHL: 1682' FNL & 100' FWL of Section 25-24S-28E, Eddy County, NM

Prepared By

Austin Tramell

Submitted To

Bureau of Land Management - Carlsbad Field Office

1.0 Estimated Formation Tops

Formation	Depth	Primary Lithology	Primary Mineral Resources
Rustler	Surface	Anhydrite	Usable Water
Salado	610	Salt	None
Castille	1,175	Limestone	None
Lamar	2,695	Limestone	None
Delaware	2,720	Sandstone	None
Bone Spring	6,425	Limestone	Oil & Gas
1st Bone Spring	7,380	Sandstone	Oil & Gas
2nd Bone Spring	8,185	Sandstone	Oil & Gas

Total Depth and Target Formation

Total Vertical Depth (ft): 8430
Total Measured Depth (ft): 14,014
Target Formation: Bone Spring (2nd)

2.0 Estimated Depths of Oil & Gas

Substance	Depth (ft)
Top of Hydrocarbons	6,425
Bottom of Hydrocarbons	TD

3.0 Pressure Control Equipment

Ten thousand (10M) psi working pressure Blind Rams & Pipe Rams and a five thousand (5M) psi Annular Preventer will be installed on all casing. Two (2) chokes, with at least one (1) being a remotely controlled hydraulic choke, will used. If a full 10M system is required by the BLM, three (3) chokes will be used.

A variance to the requirement of a rigid steel line connecting the BOP to the choke manifold is requested. Specifications for the flex hose are provided with the BOP schematic in the exhibit section.

Operator testing procedures will meet minimum standards for well control equipment testing per CFR § 3172.6(b)(9). Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

In addition, the BOP equipment will be tested after any repairs to the equipment and prior to drilling out below any casing string. Pipe rams, blind rams, and annular preventer will be activated on each trip and weekly BOP drills will be held with each crew.

Floor safety valves that are fully open and sized to fit drill pipe and collars will be available on the rig floor in the

open position when the Kelly is not in use.

4.0 Proposed Casing and Design Analysis

4.1 Proposed Casing Program

Interval	Length (ft)	Size (in)	Weight/ft (lbs)	Grade	Thread	Condition	Hole size (in)
Surface	350	13.375	48	H-40	STC	NEW	17.5
Inter.	2,650	9.625	36	J-55	BTC	NEW	12.25
Prod.	13,594	5.5	20	P110	BTC	New	8.75

4.2 Casing Specifications

Interval	Total Vertical Depth (TVD)	Total Measured Depth (MD)	Weight/ft (lbs)	Grade	Collapse (psi)	Internal Yld (psi)	Body Yld Strength (psi)	Joint Strength (psi)
Surface	350	350	48	H-40	770	1,730	541,000	322,000
Inter.	2,650	2,650	36	J-55	2,020	3,520	564,000	639,000
Prod.	8,310	13,594	20	P110	11,080	12,640	641,000	667,000

5.0 Proposed Cement Program

Surface Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Sur. Lead	0	50	13.50	1.79	100	70	39
Sur. Tail	300	350	14.80	1.33	100	418	52

Lead Cmt Type: Class C
Lead Additives: 4% Gel + 5% Salt +0.2% SA-1 + 0.25pps Pol-E Flake + 0.005gps NOFoam V1A
Tail Cmt Type: Class C
Tail Additives: 1% calcium chloride + 0.005gps NoFoam V1A

Intermediate Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Int. Lead	0	2,150	12.70	1.53	50	1,011	639
Int. Tail	2,150	2,650	14.80	1.33	50	235	177

Lead Cmt Type: 40% Class C + 60% POZ
Lead Additives: 5% Salt + 1% SMS + 2% CS-9 + 0.1% R-1300 + 0.25pps Pol-E Flake + 0.005gps NoFoam V1A
Tail Cmt Type: Class C
Tail Additives: 1% calcium chloride + 0.005gps NoFoam V1A

Production Casing Cement

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft^3/sk)	Excess (%)	Volume (ft^3)	# of Sks Cmt
Prod. Lead	0	7,373	10.70	3.34	15	2,084	624
Prod. Tail	7,373	13,594	13.50	1.54	15	1,806	1,173

Lead Cmt Type: 100% ProLite

Lead Additives: 5pps Plexcrete STE + 2% SMS + 0.1% RCKCAS-100 + .85% R-1300 + 0.2% FL-24 + .25pps Pol-E Flake + 0.005gps NoFoam V1A

Tail Cmt Type: 50% Class H + 50% B POZ

Tail Additives: 6% Gell + 5% Slat + .2% SMS + .55% FR-5 + .4% FL-24 + 0.005gps NoFoam V1A

*** Operator reserves the right to change cement designs as hole conditions may warrant**

6.0 Proposed Mud Program

Interval	Top (MD)	Bottom (MD)	Type	Max Mud Weight Pressure Control Design	Max Mud Weight Hole Control Design	Viscosity (cP)	Formation Fracture Gradient	Fluid Loss
Surface	0	350	FW	9.2	8.4	32-36	0.75	NC
Inter.	350	2,650	FW	8.60	8.4	28-30	0.75	NC
Prod.	2,650	13,594	OBM	9.6	9.2	50-70	0.75	8-10 cc

Mud weight increases at shoe depths are for pressure control. Mud weight increases in the curve and lateral section of the hole are for hole stability, not pressure control. Mud weight assumptions for casing load designs exceed anticipated maximum mud weight for balanced drilling in all hole sections. Expected mud weights in producing formation will be 0.5 to 1.0 lbs/gal greater than formation pressure (i.e. overbalanced drilling).

The mud system will run as a closed loop system with PVT monitoring. All drill cuttings and liquid mud will be hauled to an approved site for disposal or soil farmed upon receiving appropriate approval.

An industry accepted medium will be stored on location in the event that there is a loss of circulation in the well bore.

7.0 Drilling Design Analysis

7.1 Casing Safety Factors

**See separate SF attachment*

Interval	Burst Safety Factor	Collapse Safety Factor	Pipe Body Tensile Safety Factor	Joint Tension Safety Factor
Surface	11.05	4.92	32.20	19.17
Inter.	2.97	3.41	6.70	5.91
Prod.	3.00	2.63	3.80	3.96

7.2 Casing Design Assumptions

7.2.1 Surface Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

7.2.2 Intermediate Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

7.2.3 Production Casing Design Assumptions

Burst Design Assumptions:

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

Collapse Design Assumptions:

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

Tension Design Assumptions:

Calculations assume string held in suspension to TVD.

8.0 Completion Program and Casing Design

Hydraulic fracturing will occur through the production casing. The burst design calculation assumes TOC at 9400 ft., therefore, the backside of the production casing is not evacuated. The maximum pumping pressure is 9500 psi with a maximum proppant fluid weight of 9.5 lbs/gal.

Upon request, operator will provide proof of cement bonding by bond log. Operator is responsible for log interpretation and certification prior to frac treatment.

Upon request, operator will provide estimated fracture lengths, flowback storage, volumes of fluids and amount of sand to be used, and number of stages of frac procedure. Furthermore, a report of the annulus pressures before and after each stage of treatment may be requested by the BLM. The report may include chemical additives (other than proprietary), dissolved solids in frac fluid, and depth of perforations.

9.0 Drilling Evaluation Program

Required Testing, Logging, and Coring procedures noted below:

* Mud Logging/Gamma Ray/MWD – (MWD on horizontal wells only).
* Open hole logs (GR/SP/DIL/LDT/CNL/ML) from TD (horizontal well - vertical portion of hole) to the top of the uppermost potential hydrocarbon intervals
* Open hole logs (GR/SP/DIL) from the top of the uppermost hydrocarbon interval to the base of the surface casing and (GR) log from base of surface casing to surface.
* Cased hole CBL on production casing.

Note: The above referenced logging requirements are mandatory unless:

1) The well is located off unit, or
2) The operator can provide the BLM adequate geologic information in which they based the location and drilling of the well, or
3) The operator can provide the BLM logging data from a well that is within a 1-mile radius from the proposed surface hole location. The logging data can be no more than 30 years old and must be at least to TD of the proposed well.

10.0 Downhole Conditions

Zones of Possible Lost Circulation:	N/A	
Zones of Possible Abnormal Pressure:	N/A	
Maximum Bottom Hole Tempurature:	180	degrees F
Maximum Bottom Hole Pressure:	4,280	psi
Maximum Anticipated Surface Pressure:	2,354	psi

3R Operating, LLC

Company: 3R Operating, LLC
Field: Eddy County, NM (NAD83)
Location: Mongo 25 Fed Com
Well: Mongo 25 Fed Com 502H
OH
Plan: Plan 1
GL 2925 + 25' KB @ 2950.00usft

RIG: TBD

Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.14°

Magnetic Field
Strength: 47033.3nT
Dip Angle: 59.68°
Date: 4/11/2025
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.14°

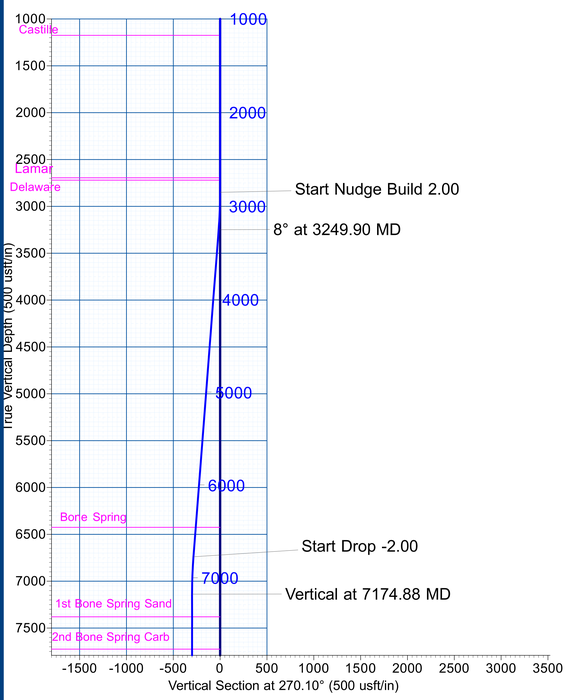
LEGACY DIRECTIONAL

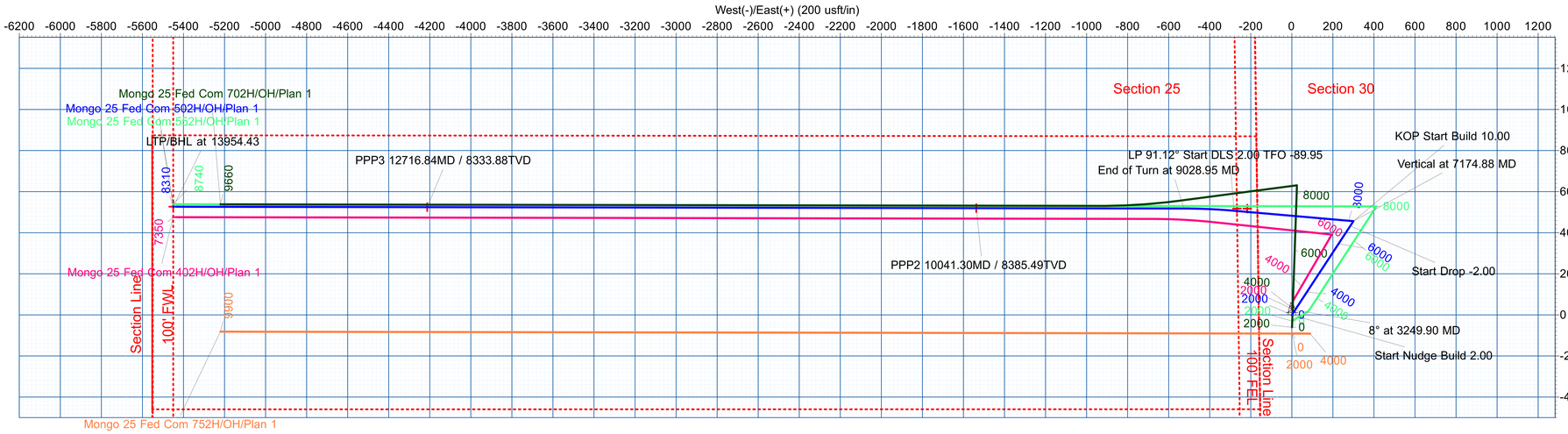
PROJECT DETAILS: Eddy County, NM (NAD83)

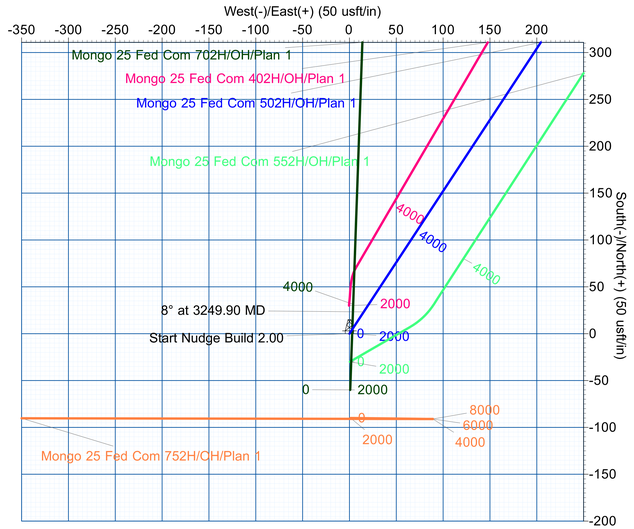
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
15.00	15.00	Rustler
610.00	610.00	Salado
1175.00	1175.00	Castille
2695.00	2695.00	Lamar
2720.00	2720.00	Delaware
6425.00	6457.50	Bone Spring
7380.00	7416.88	1st Bone Spring Sand
7725.00	7761.88	2nd Bone Spring Carb
8185.00	8247.86	2nd Bone Spring Sand







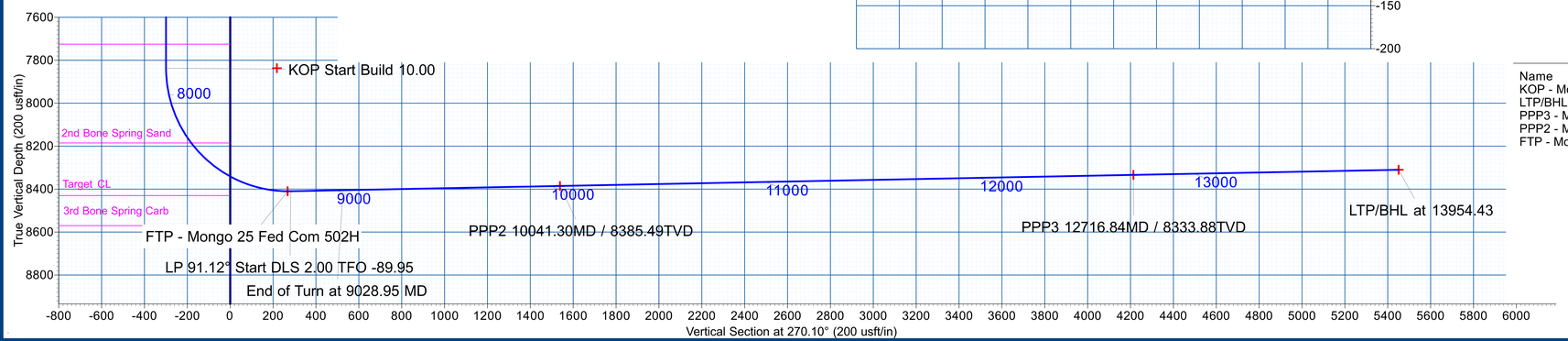
WELL DETAILS: Mongo 25 Fed Com 502H

GL 2925 + 25' KB @ 2950.00usft 2925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	432884.77	634710.39	32.189718	-104.031496	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2850.00	0.00	0.00	2850.00	0.00	0.00	0.00	0.00	0.00	
3	3249.90	8.00	33.32	3248.60	23.29	15.31	2.00	33.32	-15.26	
4	6774.99	8.00	33.32	6739.40	433.15	284.69	0.00	0.00	-283.94	
5	7174.88	0.00	0.00	7138.00	456.44	300.00	2.00	180.00	-299.20	
6	7873.98	0.00	0.00	7837.10	456.44	300.00	0.00	0.00	-299.20	KOP - Mongo 25 Fed Com 502H
7	8785.14	91.12	274.98	8409.95	507.15	-281.91	10.00	274.98	282.79	
8	9028.95	91.12	270.10	8405.20	517.95	-525.35	2.00	-89.95	526.26	
9	10041.30	91.12	270.10	8385.49	519.77	-1537.52	0.00	0.00	1538.42	PPP2 - Mongo 25 Fed Com 502H
10	12716.84	91.10	270.10	8333.88	524.59	-4212.55	0.00	178.38	4213.46	PPP3 - Mongo 25 Fed Com 502H
11	13954.43	91.10	270.10	8310.23	526.83	-5449.92	0.00	0.00	5450.83	LTP/BHL - Mongo 25 Fed Com 502H



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP - Mongo 25 Fed Com 502H	7837.10	517.40	-217.22	433402.17	634493.17	32.191141	-104.032194
LTP/BHL - Mongo 25 Fed Com 502H	8310.00	526.82	-5449.92	433411.59	629260.47	32.191207	-104.049109
PPP3 - Mongo 25 Fed Com 502H	8333.88	524.59	-4212.55	433409.36	630497.84	32.191191	-104.045109
PPP2 - Mongo 25 Fed Com 502H	8385.49	519.77	-1537.52	433404.54	633172.87	32.191158	-104.036462
FTP - Mongo 25 Fed Com 502H	8410.00	517.49	-267.22	433402.26	634443.17	32.191142	-104.032355

Plan: Plan 1 (Mongo 25 Fed Com 502H/OH)
Created By: Jenise Kirkpatrick Date: 20:03, April 15 2025

3R Operating, LLC

Eddy County, NM (NAD83)
Mongo 25 Fed Com
Mongo 25 Fed Com 502H

OH

Plan: Plan 1

Standard Planning Report

15 April, 2025

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project Eddy County, NM (NAD83)

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

Site Mongo 25 Fed Com

Site Position:		**Northing:**	432,914.76 usft	**Latitude:**	32.189800
From:	Map	**Easting:**	634,709.97 usft	**Longitude:**	-104.031498
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Mongo 25 Fed Com 502H

Well Position	**+N/-S**	0.00 usft	**Northing:**	432,884.77 usft	**Latitude:**	32.189718
	+E/-W	0.00 usft	**Easting:**	634,710.39 usft	**Longitude:**	-104.031497
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,925.00 usft
Grid Convergence:		0.16 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/11/2025	6.30	59.68	47,033.33346718

Design Plan 1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	270.10

Plan Survey Tool Program **Date** 4/15/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,954.43	Plan 1 (OH)	MWD+IFR1+MS	
				OWSG MWD + IFR1 + Multi-St	

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,850.00	0.00	0.00	2,850.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,249.90	8.00	33.32	3,248.60	23.29	15.31	2.00	2.00	0.00	33.32	
6,774.99	8.00	33.32	6,739.40	433.15	284.69	0.00	0.00	0.00	0.00	
7,174.88	0.00	0.00	7,138.00	456.44	300.00	2.00	-2.00	0.00	180.00	
7,873.98	0.00	0.00	7,837.10	456.44	300.00	0.00	0.00	0.00	0.00	KOP - Mongo 25 Fed
8,785.14	91.12	274.98	8,409.95	507.15	-281.91	10.00	10.00	0.00	274.98	
9,028.95	91.12	270.10	8,405.20	517.95	-525.35	2.00	0.00	-2.00	-89.95	
10,041.30	91.12	270.10	8,385.49	519.77	-1,537.52	0.00	0.00	0.00	0.00	PPP2 - Mongo 25 Fed
12,716.84	91.10	270.10	8,333.88	524.59	-4,212.55	0.00	0.00	0.00	178.38	PPP3 - Mongo 25 Fed
13,954.43	91.10	270.10	8,310.23	526.83	-5,449.92	0.00	0.00	0.00	0.00	LTP/BHL - Mongo 25

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
610.00	0.00	0.00	610.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,175.00	0.00	0.00	1,175.00	0.00	0.00	0.00	0.00	0.00	0.00
Castille									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,695.00	0.00	0.00	2,695.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,720.00	0.00	0.00	2,720.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,850.00	0.00	0.00	2,850.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Nudge Build 2.00									
2,900.00	1.00	33.32	2,900.00	0.36	0.24	-0.24	2.00	2.00	0.00
3,000.00	3.00	33.32	2,999.93	3.28	2.16	-2.15	2.00	2.00	0.00
3,100.00	5.00	33.32	3,099.68	9.11	5.99	-5.97	2.00	2.00	0.00
3,200.00	7.00	33.32	3,199.13	17.84	11.73	-11.70	2.00	2.00	0.00
3,249.90	8.00	33.32	3,248.60	23.29	15.31	-15.26	2.00	2.00	0.00
8° at 3249.90 MD									
3,300.00	8.00	33.32	3,298.22	29.11	19.13	-19.08	0.00	0.00	0.00
3,400.00	8.00	33.32	3,397.24	40.74	26.78	-26.70	0.00	0.00	0.00
3,500.00	8.00	33.32	3,496.27	52.37	34.42	-34.33	0.00	0.00	0.00
3,600.00	8.00	33.32	3,595.30	63.99	42.06	-41.95	0.00	0.00	0.00
3,700.00	8.00	33.32	3,694.32	75.62	49.70	-49.57	0.00	0.00	0.00
3,800.00	8.00	33.32	3,793.35	87.25	57.34	-57.19	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	8.00	33.32	3,892.38	98.87	64.99	-64.81	0.00	0.00	0.00
4,000.00	8.00	33.32	3,991.41	110.50	72.63	-72.44	0.00	0.00	0.00
4,100.00	8.00	33.32	4,090.43	122.13	80.27	-80.06	0.00	0.00	0.00
4,200.00	8.00	33.32	4,189.46	133.76	87.91	-87.68	0.00	0.00	0.00
4,300.00	8.00	33.32	4,288.49	145.38	95.55	-95.30	0.00	0.00	0.00
4,400.00	8.00	33.32	4,387.52	157.01	103.20	-102.92	0.00	0.00	0.00
4,500.00	8.00	33.32	4,486.54	168.64	110.84	-110.54	0.00	0.00	0.00
4,600.00	8.00	33.32	4,585.57	180.26	118.48	-118.17	0.00	0.00	0.00
4,700.00	8.00	33.32	4,684.60	191.89	126.12	-125.79	0.00	0.00	0.00
4,800.00	8.00	33.32	4,783.62	203.52	133.77	-133.41	0.00	0.00	0.00
4,900.00	8.00	33.32	4,882.65	215.15	141.41	-141.03	0.00	0.00	0.00
5,000.00	8.00	33.32	4,981.68	226.77	149.05	-148.65	0.00	0.00	0.00
5,100.00	8.00	33.32	5,080.71	238.40	156.69	-156.27	0.00	0.00	0.00
5,200.00	8.00	33.32	5,179.73	250.03	164.33	-163.90	0.00	0.00	0.00
5,300.00	8.00	33.32	5,278.76	261.65	171.98	-171.52	0.00	0.00	0.00
5,400.00	8.00	33.32	5,377.79	273.28	179.62	-179.14	0.00	0.00	0.00
5,500.00	8.00	33.32	5,476.82	284.91	187.26	-186.76	0.00	0.00	0.00
5,600.00	8.00	33.32	5,575.84	296.54	194.90	-194.38	0.00	0.00	0.00
5,700.00	8.00	33.32	5,674.87	308.16	202.54	-202.01	0.00	0.00	0.00
5,800.00	8.00	33.32	5,773.90	319.79	210.19	-209.63	0.00	0.00	0.00
5,900.00	8.00	33.32	5,872.93	331.42	217.83	-217.25	0.00	0.00	0.00
6,000.00	8.00	33.32	5,971.95	343.04	225.47	-224.87	0.00	0.00	0.00
6,100.00	8.00	33.32	6,070.98	354.67	233.11	-232.49	0.00	0.00	0.00
6,200.00	8.00	33.32	6,170.01	366.30	240.75	-240.11	0.00	0.00	0.00
6,300.00	8.00	33.32	6,269.03	377.93	248.40	-247.74	0.00	0.00	0.00
6,400.00	8.00	33.32	6,368.06	389.55	256.04	-255.36	0.00	0.00	0.00
6,457.50	8.00	33.32	6,425.00	396.24	260.43	-259.74	0.00	0.00	0.00
Bone Spring									
6,500.00	8.00	33.32	6,467.09	401.18	263.68	-262.98	0.00	0.00	0.00
6,600.00	8.00	33.32	6,566.12	412.81	271.32	-270.60	0.00	0.00	0.00
6,700.00	8.00	33.32	6,665.14	424.44	278.96	-278.22	0.00	0.00	0.00
6,774.99	8.00	33.32	6,739.40	433.15	284.69	-283.94	0.00	0.00	0.00
Start Drop -2.00									
6,800.00	7.50	33.32	6,764.19	435.97	286.55	-285.79	2.00	-2.00	0.00
6,900.00	5.50	33.32	6,863.54	445.43	292.76	-291.98	2.00	-2.00	0.00
7,000.00	3.50	33.32	6,963.23	451.98	297.07	-296.28	2.00	-2.00	0.00
7,100.00	1.50	33.32	7,063.13	455.62	299.46	-298.67	2.00	-2.00	0.00
7,174.88	0.00	0.00	7,138.00	456.44	300.00	-299.20	2.00	-2.00	0.00
Vertical at 7174.88 MD									
7,200.00	0.00	0.00	7,163.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,263.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,363.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,416.88	0.00	0.00	7,380.00	456.44	300.00	-299.20	0.00	0.00	0.00
1st Bone Spring Sand									
7,500.00	0.00	0.00	7,463.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,563.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,700.00	0.00	0.00	7,663.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,761.88	0.00	0.00	7,725.00	456.44	300.00	-299.20	0.00	0.00	0.00
2nd Bone Spring Carb									
7,800.00	0.00	0.00	7,763.12	456.44	300.00	-299.20	0.00	0.00	0.00
7,873.98	0.00	0.00	7,837.10	456.44	300.00	-299.20	0.00	0.00	0.00
KOP Start Build 10.00									
7,900.00	2.60	274.98	7,863.11	456.49	299.41	-298.61	10.00	10.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,950.00	7.60	274.98	7,912.89	456.88	294.98	-294.19	10.00	10.00	0.00
8,000.00	12.60	274.98	7,962.10	457.64	286.25	-285.45	10.00	10.00	0.00
8,050.00	17.60	274.98	8,010.36	458.77	273.28	-272.48	10.00	10.00	0.00
8,100.00	22.60	274.98	8,057.30	460.26	256.16	-255.36	10.00	10.00	0.00
8,150.00	27.60	274.98	8,102.56	462.10	235.04	-234.23	10.00	10.00	0.00
8,200.00	32.60	274.98	8,145.81	464.28	210.06	-209.25	10.00	10.00	0.00
8,247.86	37.39	274.98	8,185.00	466.66	182.73	-181.91	10.00	10.00	0.00
2nd Bone Spring Sand									
8,250.00	37.60	274.98	8,186.70	466.77	181.43	-180.61	10.00	10.00	0.00
8,300.00	42.60	274.98	8,224.93	469.57	149.35	-148.53	10.00	10.00	0.00
8,350.00	47.60	274.98	8,260.22	472.64	114.08	-113.26	10.00	10.00	0.00
8,400.00	52.60	274.98	8,292.28	475.97	75.88	-75.05	10.00	10.00	0.00
8,450.00	57.60	274.98	8,320.87	479.53	35.04	-34.20	10.00	10.00	0.00
8,500.00	62.60	274.98	8,345.79	483.29	-8.13	8.97	10.00	10.00	0.00
8,550.00	67.60	274.98	8,366.83	487.23	-53.30	54.15	10.00	10.00	0.00
8,600.00	72.60	274.98	8,383.84	491.31	-100.12	100.98	10.00	10.00	0.00
8,650.00	77.60	274.98	8,396.70	495.50	-148.24	149.11	10.00	10.00	0.00
8,700.00	82.60	274.98	8,405.29	499.77	-197.30	198.17	10.00	10.00	0.00
8,750.00	87.60	274.98	8,409.56	504.10	-246.91	247.79	10.00	10.00	0.00
8,785.14	91.12	274.98	8,409.95	507.15	-281.91	282.79	10.00	10.00	0.00
LP 91.12° Start DLS 2.00 TFO -89.95									
8,800.00	91.12	274.68	8,409.66	508.40	-296.71	297.60	2.00	0.00	-2.00
8,900.00	91.12	272.68	8,407.71	514.82	-396.48	397.38	2.00	0.00	-2.00
9,000.00	91.12	270.68	8,405.76	517.75	-496.42	497.32	2.00	0.00	-2.00
9,028.95	91.12	270.10	8,405.20	517.95	-525.35	526.26	2.00	0.00	-2.00
End of Turn at 9028.95 MD									
9,100.00	91.12	270.10	8,403.82	518.08	-596.40	597.30	0.00	0.00	0.00
9,200.00	91.12	270.10	8,401.87	518.26	-696.38	697.28	0.00	0.00	0.00
9,300.00	91.12	270.10	8,399.92	518.44	-796.36	797.26	0.00	0.00	0.00
9,400.00	91.12	270.10	8,397.98	518.62	-896.34	897.24	0.00	0.00	0.00
9,500.00	91.12	270.10	8,396.03	518.80	-996.32	997.22	0.00	0.00	0.00
9,600.00	91.12	270.10	8,394.08	518.98	-1,096.30	1,097.20	0.00	0.00	0.00
9,700.00	91.12	270.10	8,392.14	519.16	-1,196.28	1,197.19	0.00	0.00	0.00
9,800.00	91.12	270.10	8,390.19	519.34	-1,296.26	1,297.17	0.00	0.00	0.00
9,900.00	91.12	270.10	8,388.24	519.52	-1,396.24	1,397.15	0.00	0.00	0.00
10,000.00	91.12	270.10	8,386.29	519.70	-1,496.22	1,497.13	0.00	0.00	0.00
10,041.30	91.12	270.10	8,385.49	519.77	-1,537.52	1,538.42	0.00	0.00	0.00
PPP2 10041.30MD / 8385.49TVD									
10,100.00	91.12	270.10	8,384.35	519.88	-1,596.20	1,597.11	0.00	0.00	0.00
10,200.00	91.11	270.10	8,382.40	520.06	-1,696.19	1,697.09	0.00	0.00	0.00
10,300.00	91.11	270.10	8,380.46	520.23	-1,796.17	1,797.07	0.00	0.00	0.00
10,400.00	91.11	270.10	8,378.52	520.41	-1,896.15	1,897.05	0.00	0.00	0.00
10,500.00	91.11	270.10	8,376.57	520.59	-1,996.13	1,997.03	0.00	0.00	0.00
10,600.00	91.11	270.10	8,374.63	520.77	-2,096.11	2,097.02	0.00	0.00	0.00
10,700.00	91.11	270.10	8,372.70	520.95	-2,196.09	2,197.00	0.00	0.00	0.00
10,800.00	91.11	270.10	8,370.76	521.13	-2,296.07	2,296.98	0.00	0.00	0.00
10,900.00	91.11	270.10	8,368.82	521.31	-2,396.05	2,396.96	0.00	0.00	0.00
11,000.00	91.11	270.10	8,366.89	521.49	-2,496.03	2,496.94	0.00	0.00	0.00
11,100.00	91.11	270.10	8,364.95	521.67	-2,596.02	2,596.92	0.00	0.00	0.00
11,200.00	91.11	270.10	8,363.02	521.85	-2,696.00	2,696.90	0.00	0.00	0.00
11,300.00	91.11	270.10	8,361.09	522.03	-2,795.98	2,796.88	0.00	0.00	0.00
11,400.00	91.11	270.10	8,359.16	522.21	-2,895.96	2,896.87	0.00	0.00	0.00
11,500.00	91.10	270.10	8,357.23	522.39	-2,995.94	2,996.85	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,600.00	91.10	270.10	8,355.31	522.57	-3,095.92	3,096.83	0.00	0.00	0.00
11,700.00	91.10	270.10	8,353.38	522.75	-3,195.90	3,196.81	0.00	0.00	0.00
11,800.00	91.10	270.10	8,351.46	522.94	-3,295.88	3,296.79	0.00	0.00	0.00
11,900.00	91.10	270.10	8,349.53	523.12	-3,395.87	3,396.77	0.00	0.00	0.00
12,000.00	91.10	270.10	8,347.61	523.30	-3,495.85	3,496.75	0.00	0.00	0.00
12,100.00	91.10	270.10	8,345.69	523.48	-3,595.83	3,596.74	0.00	0.00	0.00
12,200.00	91.10	270.10	8,343.77	523.66	-3,695.81	3,696.72	0.00	0.00	0.00
12,300.00	91.10	270.10	8,341.86	523.84	-3,795.79	3,796.70	0.00	0.00	0.00
12,400.00	91.10	270.10	8,339.94	524.02	-3,895.77	3,896.68	0.00	0.00	0.00
12,500.00	91.10	270.10	8,338.03	524.20	-3,995.75	3,996.66	0.00	0.00	0.00
12,600.00	91.10	270.10	8,336.11	524.38	-4,095.74	4,096.64	0.00	0.00	0.00
12,700.00	91.10	270.10	8,334.20	524.56	-4,195.72	4,196.63	0.00	0.00	0.00
12,716.84	91.10	270.10	8,333.88	524.59	-4,212.55	4,213.46	0.00	0.00	0.00
PPP3 12716.84MD / 8333.88TVD									
12,800.00	91.10	270.10	8,332.29	524.74	-4,295.70	4,296.61	0.00	0.00	0.00
12,900.00	91.10	270.10	8,330.38	524.92	-4,395.68	4,396.59	0.00	0.00	0.00
13,000.00	91.10	270.10	8,328.47	525.10	-4,495.66	4,496.57	0.00	0.00	0.00
13,100.00	91.10	270.10	8,326.56	525.28	-4,595.64	4,596.55	0.00	0.00	0.00
13,200.00	91.10	270.10	8,324.65	525.46	-4,695.62	4,696.53	0.00	0.00	0.00
13,300.00	91.10	270.10	8,322.74	525.64	-4,795.61	4,796.52	0.00	0.00	0.00
13,400.00	91.10	270.10	8,320.82	525.82	-4,895.59	4,896.50	0.00	0.00	0.00
13,500.00	91.10	270.10	8,318.91	526.00	-4,995.57	4,996.48	0.00	0.00	0.00
13,600.00	91.10	270.10	8,317.00	526.19	-5,095.55	5,096.46	0.00	0.00	0.00
13,700.00	91.10	270.10	8,315.09	526.37	-5,195.53	5,196.44	0.00	0.00	0.00
13,800.00	91.10	270.10	8,313.18	526.55	-5,295.51	5,296.43	0.00	0.00	0.00
13,900.00	91.10	270.10	8,311.27	526.73	-5,395.50	5,396.41	0.00	0.00	0.00
13,954.43	91.10	270.10	8,310.23	526.83	-5,449.92	5,450.83	0.00	0.00	0.00
LTP/BHL at 13954.43									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - Mongo 25 Fed Cc	0.00	0.00	7,837.10	517.40	-217.22	433,402.17	634,493.17	32.191142	-104.032194
- plan misses target center by 520.81usft at 7885.80usft MD (7848.92 TVD, 456.45 N, 299.88 E)									
- Point									
LTP/BHL - Mongo 25 Fe	0.00	0.00	8,310.00	526.82	-5,449.92	433,411.59	629,260.47	32.191207	-104.049109
- plan misses target center by 0.23usft at 13954.43usft MD (8310.23 TVD, 526.83 N, -5449.92 E)									
- Point									
PPP3 - Mongo 25 Fed C	0.00	0.00	8,333.88	524.59	-4,212.55	433,409.36	630,497.84	32.191191	-104.045109
- plan hits target center									
- Point									
PPP2 - Mongo 25 Fed C	0.00	0.00	8,385.49	519.77	-1,537.52	433,404.54	633,172.87	32.191158	-104.036462
- plan hits target center									
- Point									
FTP - Mongo 25 Fed Co	0.00	0.00	8,410.00	517.49	-267.22	433,402.26	634,443.17	32.191142	-104.032356
- plan misses target center by 11.58usft at 8771.40usft MD (8410.05 TVD, 505.95 N, -268.23 E)									
- Point									

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Company:	3R Operating, LLC	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	**North Reference:**	Grid
Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
15.00	15.00	Rustler			
610.00	610.00	Salado			
1,175.00	1,175.00	Castille			
2,695.00	2,695.00	Lamar			
2,720.00	2,720.00	Delaware			
6,457.50	6,425.00	Bone Spring			
7,416.88	7,380.00	1st Bone Spring Sand			
7,761.88	7,725.00	2nd Bone Spring Carb			
8,247.86	8,185.00	2nd Bone Spring Sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,850.00	2,850.00	0.00	0.00	Start Nudge Build 2.00
3,249.90	3,248.60	23.29	15.31	8° at 3249.90 MD
6,774.99	6,739.40	433.15	284.69	Start Drop -2.00
7,174.88	7,138.00	456.44	300.00	Vertical at 7174.88 MD
7,873.98	7,837.10	456.44	300.00	KOP Start Build 10.00
8,785.14	8,409.95	507.15	-281.91	LP 91.12° Start DLS 2.00 TFO -89.95
9,028.95	8,405.20	517.95	-525.35	End of Turn at 9028.95 MD
10,041.30	8,385.49	519.77	-1,537.52	PPP2 10041.30MD / 8385.49TVD
12,716.84	8,333.88	524.59	-4,212.55	PPP3 12716.84MD / 8333.88TVD
13,954.43	8,310.23	526.83	-5,449.92	LTP/BHL at 13954.43

3R Operating, LLC

Eddy County, NM (NAD83)
Mongo 25 Fed Com
Mongo 25 Fed Com 502H

OH
Plan 1

Anticollision Report

15 April, 2025

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,483.63usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 4/15/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	13,954.43	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Mongo 25 Fed Com						
Mongo 25 Fed Com 402H - OH - Plan 1	2,889.45	2,888.06	29.67	9.14	1.445	Collision Risk Procedures Re
Mongo 25 Fed Com 402H - OH - Plan 1	4,900.00	4,895.94	42.93	8.08	1.232	Collision Risk Procedures Re
Mongo 25 Fed Com 402H - OH - Plan 1	5,400.00	5,395.89	46.93	8.50	1.221	Collision Risk Procedures Re
Mongo 25 Fed Com 552H - OH - Plan 1	2,937.28	2,938.03	28.58	7.72	1.370	Collision Risk Procedures Re
Mongo 25 Fed Com 552H - OH - Plan 1	3,000.00	3,000.89	28.97	7.66	1.360	Collision Risk Procedures Re
Mongo 25 Fed Com 702H - OH - Plan 1	2,800.00	2,800.00	59.99	40.09	3.015	CC
Mongo 25 Fed Com 702H - OH - Plan 1	2,900.00	2,900.00	60.35	39.74	2.928	ES
Mongo 25 Fed Com 702H - OH - Plan 1	8,471.29	8,370.62	144.34	84.17	2.399	SF
Mongo 25 Fed Com 752H - OH - Plan 1	2,710.00	2,710.00	89.98	70.73	4.674	CC
Mongo 25 Fed Com 752H - OH - Plan 1	2,900.00	2,899.75	90.52	69.93	4.396	ES, SF

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS **Offset Well Error:** 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	1.00	0.00	0.00	-0.80	29.99	-0.42	30.01				
100.00	100.00	99.00	100.00	0.27	0.27	-0.80	29.99	-0.42	29.99	29.46	0.54	56.060	
200.00	200.00	199.00	200.00	0.63	0.62	-0.80	29.99	-0.42	29.99	28.74	1.25	23.974	
300.00	300.00	299.00	300.00	0.99	0.98	-0.80	29.99	-0.42	29.99	28.02	1.97	15.240	
400.00	400.00	399.00	400.00	1.34	1.34	-0.80	29.99	-0.42	29.99	27.31	2.68	11.171	
500.00	500.00	499.00	500.00	1.70	1.70	-0.80	29.99	-0.42	29.99	26.59	3.40	8.817	
600.00	600.00	599.00	600.00	2.06	2.06	-0.80	29.99	-0.42	29.99	25.87	4.12	7.282	
700.00	700.00	699.00	700.00	2.42	2.42	-0.80	29.99	-0.42	29.99	25.16	4.84	6.202	
800.00	800.00	799.00	800.00	2.78	2.77	-0.80	29.99	-0.42	29.99	24.44	5.55	5.401	
900.00	900.00	899.00	900.00	3.14	3.13	-0.80	29.99	-0.42	29.99	23.72	6.27	4.784	
1,000.00	1,000.00	999.00	1,000.00	3.50	3.49	-0.80	29.99	-0.42	29.99	23.01	6.99	4.293	
1,100.00	1,100.00	1,099.00	1,100.00	3.85	3.85	-0.80	29.99	-0.42	29.99	22.29	7.70	3.893	
1,200.00	1,200.00	1,199.00	1,200.00	4.21	4.21	-0.80	29.99	-0.42	29.99	21.57	8.42	3.562	
1,300.00	1,300.00	1,299.00	1,300.00	4.57	4.57	-0.80	29.99	-0.42	29.99	20.86	9.14	3.282	
1,400.00	1,400.00	1,399.00	1,400.00	4.93	4.93	-0.80	29.99	-0.42	29.99	20.14	9.85	3.044	
1,500.00	1,500.00	1,499.00	1,500.00	5.29	5.28	-0.80	29.99	-0.42	29.99	19.42	10.57	2.837	
1,600.00	1,600.00	1,599.00	1,600.00	5.65	5.64	-0.80	29.99	-0.42	29.99	18.70	11.29	2.657	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
1,700.00	1,700.00	1,699.00	1,700.00	6.00	6.00	-0.80	29.99	-0.42	29.99	17.99	12.01	2.498	
1,800.00	1,800.00	1,799.00	1,800.00	6.36	6.36	-0.80	29.99	-0.42	29.99	17.27	12.72	2.358	
1,900.00	1,900.00	1,899.00	1,900.00	6.72	6.72	-0.80	29.99	-0.42	29.99	16.55	13.44	2.232	
2,000.00	2,000.00	1,999.00	2,000.00	7.08	7.08	-0.80	29.99	-0.42	29.99	15.84	14.16	2.119	
2,100.00	2,100.00	2,099.00	2,100.00	7.44	7.43	-0.80	29.99	-0.42	29.99	15.12	14.87	2.017	
2,200.00	2,200.00	2,199.00	2,200.00	7.80	7.79	-0.80	29.99	-0.42	29.99	14.40	15.59	1.924	Collision Risk Procedures Req.
2,300.00	2,300.00	2,299.00	2,300.00	8.16	8.15	-0.80	29.99	-0.42	29.99	13.69	16.31	1.839	Collision Risk Procedures Req.
2,400.00	2,400.00	2,399.00	2,400.00	8.51	8.51	-0.80	29.99	-0.42	29.99	12.97	17.02	1.762	Collision Risk Procedures Req.
2,500.00	2,500.00	2,499.00	2,500.00	8.87	8.87	-0.80	29.99	-0.42	29.99	12.25	17.74	1.691	Collision Risk Procedures Req.
2,600.00	2,600.00	2,599.00	2,600.00	9.23	9.23	-0.80	29.99	-0.42	29.99	11.54	18.46	1.625	Collision Risk Procedures Req.
2,700.00	2,700.00	2,699.00	2,700.00	9.59	9.59	-0.80	29.99	-0.42	29.99	10.82	19.17	1.564	Collision Risk Procedures Req.
2,800.00	2,800.00	2,799.00	2,800.00	9.95	9.94	-0.80	29.99	-0.42	29.99	10.10	19.89	1.508	Collision Risk Procedures Req.
2,889.45	2,889.45	2,888.06	2,889.05	10.27	10.26	-34.82	30.24	-0.40	29.67	9.14	20.53	1.445	Collision Risk Procedures Req., CC
2,900.00	2,900.00	2,898.49	2,899.49	10.31	10.30	-34.50	30.40	-0.38	30.04	9.44	20.60	1.458	Collision Risk Procedures Req.
3,000.00	2,999.93	2,997.44	2,998.38	10.66	10.66	-37.47	33.77	-0.09	30.61	9.32	21.29	1.438	Collision Risk Procedures Req.
3,100.00	3,099.68	3,096.33	3,097.03	11.02	11.01	-43.04	40.53	0.50	32.01	10.05	21.96	1.457	Collision Risk Procedures Req.
3,200.00	3,199.13	3,195.11	3,195.28	11.37	11.36	-50.40	50.67	1.39	34.63	12.02	22.62	1.531	Collision Risk Procedures Req.
3,300.00	3,298.22	3,295.46	3,294.85	11.73	11.72	-57.61	62.86	3.65	37.28	13.91	23.37	1.595	Collision Risk Procedures Req.
3,400.00	3,397.24	3,396.11	3,394.72	12.08	12.07	-60.97	74.10	9.12	37.83	13.72	24.11	1.569	Collision Risk Procedures Req.
3,500.00	3,496.27	3,496.10	3,493.91	12.44	12.43	-63.23	84.98	15.49	37.78	12.95	24.83	1.522	Collision Risk Procedures Req.
3,531.90	3,527.86	3,527.99	3,525.55	12.55	12.54	-63.95	88.45	17.52	37.78	12.72	25.06	1.508	Collision Risk Procedures Req.
3,600.00	3,595.30	3,596.09	3,593.10	12.79	12.79	-65.49	95.86	21.85	37.79	12.25	25.54	1.480	Collision Risk Procedures Req.
3,700.00	3,694.32	3,696.07	3,692.29	13.15	13.14	-67.74	106.73	28.22	37.86	11.60	26.26	1.442	Collision Risk Procedures Req.
3,800.00	3,793.35	3,796.06	3,791.48	13.51	13.50	-69.98	117.61	34.58	37.99	11.01	26.98	1.408	Collision Risk Procedures Req.
3,900.00	3,892.38	3,896.05	3,890.68	13.86	13.86	-72.21	128.48	40.95	38.18	10.48	27.69	1.379	Collision Risk Procedures Req.
4,000.00	3,991.41	3,996.04	3,989.87	14.22	14.21	-74.41	139.36	47.31	38.42	10.01	28.41	1.352	Collision Risk Procedures Req.
4,100.00	4,090.43	4,096.03	4,089.06	14.58	14.57	-76.58	150.24	53.68	38.72	9.59	29.12	1.329	Collision Risk Procedures Req.
4,200.00	4,189.46	4,196.02	4,188.25	14.94	14.93	-78.71	161.11	60.04	39.07	9.23	29.84	1.309	Collision Risk Procedures Req.
4,300.00	4,288.49	4,296.01	4,287.44	15.30	15.29	-80.80	171.99	66.41	39.48	8.92	30.56	1.292	Collision Risk Procedures Req.
4,400.00	4,387.52	4,396.00	4,386.63	15.66	15.65	-82.85	182.87	72.77	39.93	8.66	31.27	1.277	Collision Risk Procedures Req.
4,500.00	4,486.54	4,495.99	4,485.82	16.02	16.01	-84.85	193.74	79.14	40.44	8.46	31.99	1.264	Collision Risk Procedures Req.
4,600.00	4,585.57	4,595.97	4,585.02	16.38	16.37	-86.79	204.62	85.50	41.00	8.29	32.70	1.254	Collision Risk Procedures Req.
4,700.00	4,684.60	4,695.96	4,684.21	16.74	16.73	-88.68	215.49	91.87	41.60	8.18	33.42	1.245	Collision Risk Procedures Req.
4,800.00	4,783.62	4,795.95	4,783.40	17.10	17.09	-90.52	226.37	98.24	42.24	8.11	34.13	1.238	Collision Risk Procedures Req.
4,900.00	4,882.65	4,895.94	4,882.59	17.47	17.45	-92.30	237.25	104.60	42.93	8.08	34.85	1.232	Collision Risk Procedures Req., ES
5,000.00	4,981.68	4,995.93	4,981.78	17.83	17.81	-94.02	248.12	110.97	43.66	8.09	35.57	1.228	Collision Risk Procedures Req.
5,100.00	5,080.71	5,095.92	5,080.97	18.19	18.17	-95.68	259.00	117.33	44.42	8.14	36.28	1.224	Collision Risk Procedures Req.
5,200.00	5,179.73	5,195.91	5,180.17	18.55	18.54	-97.29	269.87	123.70	45.23	8.23	37.00	1.222	Collision Risk Procedures Req.
5,300.00	5,278.76	5,295.90	5,279.36	18.92	18.90	-98.84	280.75	130.06	46.06	8.35	37.72	1.221	Collision Risk Procedures Req.
5,400.00	5,377.79	5,395.89	5,378.55	19.28	19.26	-100.33	291.63	136.43	46.93	8.50	38.43	1.221	Collision Risk Procedures Req., SF
5,500.00	5,476.82	5,495.87	5,477.74	19.64	19.62	-101.77	302.50	142.79	47.83	8.68	39.15	1.222	Collision Risk Procedures Req.
5,600.00	5,575.84	5,595.86	5,576.93	20.01	19.99	-103.15	313.38	149.16	48.76	8.89	39.87	1.223	Collision Risk Procedures Req.
5,700.00	5,674.87	5,695.85	5,676.12	20.37	20.35	-104.48	324.26	155.52	49.71	9.13	40.59	1.225	Collision Risk Procedures Req.
5,800.00	5,773.90	5,795.84	5,775.32	20.74	20.71	-105.76	335.13	161.89	50.69	9.39	41.31	1.227	Collision Risk Procedures Req.
5,900.00	5,872.93	5,895.83	5,874.51	21.10	21.07	-106.99	346.01	168.25	51.70	9.67	42.03	1.230	Collision Risk Procedures Req.
6,000.00	5,971.95	5,995.82	5,973.70	21.46	21.44	-108.18	356.88	174.62	52.73	9.98	42.75	1.234	Collision Risk Procedures Req.
6,100.00	6,070.98	6,095.81	6,072.89	21.83	21.80	-109.32	367.76	180.98	53.78	10.31	43.47	1.237	Collision Risk Procedures Req.
6,200.00	6,170.01	6,195.40	6,171.78	22.19	22.16	-111.19	377.92	186.93	55.09	10.90	44.19	1.247	Collision Risk Procedures Req.
6,300.00	6,269.03	6,294.57	6,270.58	22.56	22.52	-116.01	385.23	191.21	57.67	12.76	44.91	1.284	Collision Risk Procedures Req.
6,400.00	6,368.06	6,393.25	6,369.13	22.92	22.87	-123.15	389.58	193.75	62.29	16.67	45.62	1.365	Collision Risk Procedures Req.
6,500.00	6,467.09	6,491.23	6,467.09	23.29	23.22	-131.43	390.99	194.58	69.85	23.52	46.32	1.508	Collision Risk Procedures Req.
6,600.00	6,566.12	6,590.25	6,566.12	23.66	23.57	-138.91	390.99	194.58	79.78	32.74	47.05	1.696	Collision Risk Procedures Req.

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
6,700.00	6,665.14	6,689.28	6,665.14	24.02	23.93	-144.67	390.99	194.58	90.77	43.00	47.77	1.900	Collision Risk Procedures Req.
6,800.00	6,764.19	6,788.32	6,764.19	24.39	24.28	-149.16	390.99	194.58	102.38	53.88	48.50	2.111	
6,900.00	6,863.54	6,883.81	6,859.67	24.75	24.61	-151.98	391.04	194.08	112.74	63.64	49.10	2.296	
7,000.00	6,963.23	6,967.84	6,943.06	25.11	24.90	-151.03	392.05	184.49	129.12	80.14	48.99	2.636	
7,100.00	7,063.13	7,050.00	7,022.39	25.47	25.17	-147.37	394.26	163.48	154.65	106.20	48.44	3.192	
7,200.00	7,163.12	7,119.95	7,086.97	25.82	25.39	-110.00	397.06	136.86	189.58	142.80	46.77	4.053	
7,300.00	7,263.12	7,184.82	7,143.53	26.18	25.59	-106.07	400.37	105.35	235.23	190.27	44.96	5.232	
7,400.00	7,363.12	7,241.53	7,189.78	26.53	25.76	-103.04	403.80	72.74	290.62	247.58	43.04	6.752	
7,500.00	7,463.12	7,300.00	7,233.83	26.88	25.92	-100.38	407.81	34.54	354.13	312.23	41.90	8.452	
7,600.00	7,563.12	7,332.96	7,256.86	27.23	26.01	-99.08	410.27	11.10	423.54	384.04	39.50	10.722	
7,700.00	7,663.12	7,369.45	7,280.73	27.59	26.11	-97.79	413.16	-16.34	498.16	460.14	38.02	13.103	
7,800.00	7,763.12	7,400.00	7,299.33	27.94	26.19	-96.83	415.69	-40.44	576.77	540.07	36.69	15.718	
7,900.00	7,863.11	7,428.60	7,315.55	28.29	26.27	-10.32	418.15	-63.86	658.22	622.57	35.65	18.461	
8,000.00	7,962.10	7,450.00	7,326.90	28.62	26.32	-8.01	420.05	-81.90	735.14	700.92	34.21	21.487	
8,100.00	8,057.30	7,500.00	7,350.74	28.94	26.45	-6.32	424.64	-125.59	803.88	770.16	33.72	23.837	
8,200.00	8,145.81	7,520.79	7,359.51	29.25	26.50	-5.43	426.61	-144.34	863.30	831.27	32.02	26.957	
8,300.00	8,224.93	7,550.00	7,370.66	29.53	26.57	-4.78	429.43	-171.18	913.31	882.67	30.64	29.806	
8,400.00	8,292.28	7,600.00	7,386.51	29.79	26.69	-4.28	434.39	-218.33	953.26	923.38	29.88	31.905	
8,500.00	8,345.79	7,625.14	7,392.90	30.02	26.75	-4.00	436.93	-242.51	982.39	953.80	28.59	34.361	
8,600.00	8,383.84	7,650.00	7,398.16	30.24	26.81	-3.82	439.47	-266.67	1,001.00	973.38	27.62	36.240	
8,700.00	8,405.29	7,700.00	7,405.54	30.45	26.92	-3.71	444.64	-315.84	1,008.26	980.93	27.33	36.889	
8,800.00	8,409.66	7,733.62	7,408.06	30.63	26.99	-3.68	448.14	-349.17	1,004.78	977.63	27.15	37.005	
8,900.00	8,407.71	7,775.90	7,408.51	30.84	27.09	-3.55	452.54	-391.22	1,001.15	973.75	27.40	36.534	
9,000.00	8,405.76	7,873.74	7,407.38	31.10	27.33	-3.26	460.79	-488.69	1,000.04	972.09	27.95	35.778	
9,100.00	8,403.82	7,971.79	7,406.25	31.38	27.61	-3.00	465.70	-586.61	998.99	970.42	28.58	34.960	
9,200.00	8,401.87	8,070.19	7,405.11	31.71	27.93	-2.93	467.27	-684.99	998.12	968.86	29.26	34.111	
9,300.00	8,399.92	8,170.19	7,403.96	32.06	28.30	-2.93	467.45	-784.98	997.33	967.31	30.02	33.224	
9,400.00	8,397.98	8,270.18	7,402.81	32.46	28.70	-2.93	467.63	-884.97	996.54	965.70	30.83	32.319	
9,500.00	8,396.03	8,370.18	7,401.66	32.88	29.15	-2.93	467.81	-984.96	995.74	964.04	31.71	31.405	
9,600.00	8,394.08	8,470.18	7,400.51	33.34	29.62	-2.94	467.99	-1,084.95	994.95	962.32	32.63	30.490	
9,700.00	8,392.14	8,570.17	7,399.35	33.83	30.13	-2.94	468.16	-1,184.94	994.15	960.55	33.60	29.584	
9,800.00	8,390.19	8,670.17	7,398.20	34.35	30.67	-2.94	468.34	-1,284.93	993.36	958.74	34.62	28.692	
9,900.00	8,388.24	8,770.17	7,397.05	34.89	31.25	-2.94	468.52	-1,384.92	992.57	956.89	35.68	27.819	
10,000.00	8,386.29	8,870.16	7,395.90	35.47	31.85	-2.95	468.70	-1,484.91	991.77	955.00	36.77	26.970	
10,100.00	8,384.35	8,970.16	7,394.75	36.06	32.47	-2.95	468.87	-1,584.89	990.98	953.08	37.90	26.147	
10,200.00	8,382.40	9,070.15	7,393.59	36.68	33.13	-2.95	469.05	-1,684.88	990.19	951.13	39.06	25.351	
10,300.00	8,380.46	9,170.14	7,392.44	37.33	33.81	-2.95	469.23	-1,784.87	989.40	949.15	40.24	24.585	
10,400.00	8,378.52	9,270.14	7,391.29	38.00	34.51	-2.96	469.41	-1,884.85	988.61	947.15	41.46	23.847	
10,500.00	8,376.57	9,370.13	7,390.14	38.68	35.23	-2.96	469.59	-1,984.84	987.82	945.13	42.69	23.139	
10,600.00	8,374.63	9,470.12	7,388.98	39.39	35.98	-2.96	469.76	-2,084.82	987.04	943.09	43.95	22.460	
10,700.00	8,372.70	9,570.12	7,387.83	40.12	36.74	-2.96	469.94	-2,184.81	986.25	941.03	45.22	21.809	
10,800.00	8,370.76	9,670.11	7,386.67	40.86	37.52	-2.97	470.12	-2,284.80	985.47	938.96	46.52	21.186	
10,900.00	8,368.82	9,770.10	7,385.52	41.62	38.32	-2.97	470.30	-2,384.78	984.69	936.87	47.83	20.589	
11,000.00	8,366.89	9,870.09	7,384.36	42.40	39.13	-2.97	470.48	-2,484.77	983.91	934.76	49.15	20.018	
11,100.00	8,364.95	9,970.09	7,383.20	43.19	39.96	-2.97	470.66	-2,584.75	983.14	932.65	50.49	19.472	
11,200.00	8,363.02	10,070.08	7,382.05	44.00	40.80	-2.98	470.84	-2,684.74	982.36	930.52	51.84	18.949	
11,300.00	8,361.09	10,170.07	7,380.89	44.82	41.65	-2.98	471.02	-2,784.73	981.59	928.38	53.21	18.449	
11,400.00	8,359.16	10,270.06	7,379.73	45.65	42.52	-2.98	471.20	-2,884.71	980.82	926.24	54.58	17.970	
11,500.00	8,357.23	10,370.06	7,378.58	46.50	43.40	-2.98	471.38	-2,984.70	980.05	924.08	55.97	17.511	
11,600.00	8,355.31	10,470.05	7,377.42	47.35	44.29	-2.99	471.56	-3,084.68	979.28	921.92	57.36	17.072	
11,700.00	8,353.38	10,570.04	7,376.26	48.22	45.19	-2.99	471.74	-3,184.67	978.52	919.75	58.77	16.651	
11,800.00	8,351.46	10,670.04	7,375.10	49.09	46.10	-2.99	471.92	-3,284.65	977.75	917.58	60.18	16.248	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
11,900.00	8,349.53	10,770.03	7,373.94	49.98	47.02	-2.99	472.10	-3,384.64	976.99	915.40	61.60	15.861	
12,000.00	8,347.61	10,870.02	7,372.78	50.88	47.94	-2.99	472.28	-3,484.63	976.23	913.21	63.02	15.490	
12,100.00	8,345.69	10,970.02	7,371.62	51.78	48.88	-3.00	472.46	-3,584.61	975.47	911.02	64.46	15.134	
12,200.00	8,343.77	11,070.01	7,370.46	52.69	49.82	-3.00	472.64	-3,684.60	974.72	908.82	65.90	14.792	
12,300.00	8,341.86	11,170.00	7,369.30	53.61	50.77	-3.00	472.82	-3,784.59	973.96	906.62	67.34	14.463	
12,400.00	8,339.94	11,269.99	7,368.14	54.54	51.73	-3.00	473.00	-3,884.57	973.21	904.42	68.79	14.147	
12,500.00	8,338.03	11,369.99	7,366.97	55.47	52.69	-3.01	473.19	-3,984.56	972.46	902.21	70.25	13.843	
12,600.00	8,336.11	11,469.98	7,365.81	56.42	53.66	-3.01	473.37	-4,084.54	971.71	900.00	71.71	13.551	
12,700.00	8,334.20	11,569.97	7,364.65	57.36	54.63	-3.01	473.55	-4,184.53	970.96	897.79	73.17	13.269	
12,800.00	8,332.29	11,669.97	7,363.48	58.32	55.61	-3.01	473.73	-4,284.52	970.21	895.57	74.64	12.998	
12,900.00	8,330.38	11,769.98	7,362.32	59.28	56.60	-3.01	473.91	-4,384.52	969.47	893.35	76.12	12.737	
13,000.00	8,328.47	11,869.99	7,361.16	60.24	57.59	-3.02	474.09	-4,484.52	968.72	891.12	77.59	12.485	
13,100.00	8,326.56	11,969.99	7,360.00	61.21	58.58	-3.02	474.27	-4,584.52	967.97	888.89	79.07	12.241	
13,200.00	8,324.65	12,070.00	7,358.84	62.19	59.58	-3.02	474.46	-4,684.52	967.22	886.66	80.56	12.007	
13,300.00	8,322.74	12,170.01	7,357.68	63.17	60.59	-3.02	474.64	-4,784.52	966.46	884.42	82.04	11.780	
13,400.00	8,320.82	12,270.01	7,356.52	64.15	61.59	-3.03	474.82	-4,884.52	965.71	882.18	83.53	11.561	
13,500.00	8,318.91	12,370.02	7,355.37	65.14	62.60	-3.03	475.00	-4,984.52	964.96	879.93	85.03	11.349	
13,600.00	8,317.00	12,470.03	7,354.21	66.14	63.62	-3.03	475.18	-5,084.52	964.20	877.68	86.52	11.144	
13,700.00	8,315.09	12,570.03	7,353.06	67.13	64.64	-3.03	475.36	-5,184.52	963.45	875.42	88.02	10.945	
13,800.00	8,313.18	12,670.04	7,351.91	68.13	65.66	-3.04	475.53	-5,284.52	962.69	873.17	89.52	10.754	
13,900.00	8,311.27	12,770.05	7,350.75	69.14	66.68	-3.04	475.71	-5,384.52	961.93	870.91	91.03	10.568	
13,954.43	8,310.23	12,824.49	7,350.13	69.69	67.24	-3.04	475.81	-5,438.96	961.52	869.67	91.85	10.469	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-29.99	0.42	29.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-29.99	0.42	29.99	29.46	0.54	55.779	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-29.99	0.42	29.99	28.74	1.25	23.905	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-29.99	0.42	29.99	28.02	1.97	15.213	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-29.99	0.42	29.99	27.30	2.69	11.156	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-29.99	0.42	29.99	26.59	3.41	8.807	
524.13	524.13	524.13	524.13	1.79	1.79	179.20	-29.99	0.42	29.99	26.41	3.58	8.381	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-29.99	0.42	29.99	25.87	4.12	7.276	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-29.99	0.42	29.99	25.63	4.36	6.877	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-29.99	0.42	29.99	25.15	4.84	6.198	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-29.99	0.42	29.99	24.44	5.56	5.398	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-29.99	0.42	29.99	23.72	6.27	4.781	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-29.99	0.42	29.99	23.00	6.99	4.291	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-29.99	0.42	29.99	22.29	7.71	3.892	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-29.99	0.42	29.99	21.57	8.42	3.560	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-29.99	0.42	29.99	20.85	9.14	3.281	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-29.99	0.42	29.99	20.13	9.86	3.043	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-29.99	0.42	29.99	19.42	10.57	2.836	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-29.99	0.42	29.99	18.70	11.29	2.656	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-29.99	0.42	29.99	17.98	12.01	2.498	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-29.99	0.42	29.99	17.27	12.73	2.357	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-29.99	0.42	29.99	16.55	13.44	2.231	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-29.99	0.42	29.99	15.83	14.16	2.118	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-29.99	0.42	29.99	15.12	14.88	2.016	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-29.99	0.42	29.99	14.40	15.59	1.923	Collision Risk Procedures Req.
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-29.99	0.42	29.99	13.68	16.31	1.839	Collision Risk Procedures Req.
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-29.99	0.42	29.99	12.97	17.03	1.761	Collision Risk Procedures Req.
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-29.99	0.42	29.99	12.25	17.74	1.690	Collision Risk Procedures Req.
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-29.99	0.42	29.99	11.53	18.46	1.625	Collision Risk Procedures Req.
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-29.99	0.42	29.99	10.81	19.18	1.564	Collision Risk Procedures Req.
2,800.00	2,800.00	2,800.23	2,800.23	9.95	9.95	178.60	-29.81	0.73	29.82	9.93	19.89	1.499	Collision Risk Procedures Req.
2,900.00	2,900.00	2,900.64	2,900.57	10.31	10.30	139.92	-28.14	3.63	28.71	8.11	20.60	1.394	Collision Risk Procedures Req.
2,937.28	2,937.27	2,938.03	2,937.90	10.44	10.43	137.13	-27.07	5.48	28.58	7.72	20.86	1.370	Collision Risk Procedures Req., CC
3,000.00	2,999.93	3,000.89	3,000.58	10.66	10.65	131.90	-24.72	9.55	28.97	7.66	21.31	1.360	Collision Risk Procedures Req., ES, SF
3,100.00	3,099.68	3,100.95	3,100.11	11.02	11.00	123.08	-19.56	18.49	31.28	9.26	22.01	1.421	Collision Risk Procedures Req.
3,200.00	3,199.13	3,200.79	3,198.99	11.37	11.35	115.05	-12.68	30.40	35.78	13.06	22.72	1.575	Collision Risk Procedures Req.
3,300.00	3,298.22	3,300.49	3,297.35	11.73	11.70	109.31	-4.53	44.52	42.15	18.74	23.42	1.800	Collision Risk Procedures Req.
3,400.00	3,397.24	3,400.21	3,395.70	12.08	12.06	105.47	3.70	58.77	48.97	24.86	24.11	2.031	
3,500.00	3,496.27	3,501.12	3,495.25	12.44	12.42	102.54	12.50	72.75	55.31	30.48	24.83	2.228	
3,600.00	3,595.30	3,603.07	3,595.87	12.79	12.78	100.04	23.81	84.58	58.51	32.96	25.55	2.290	
3,700.00	3,694.32	3,704.22	3,695.65	13.15	13.14	97.54	37.39	94.07	58.58	32.32	26.25	2.231	
3,800.00	3,793.35	3,804.19	3,794.25	13.51	13.50	95.00	51.24	103.04	58.19	31.22	26.97	2.158	
3,900.00	3,892.38	3,904.15	3,892.85	13.86	13.86	92.43	65.08	112.01	57.91	30.23	27.68	2.092	
4,000.00	3,991.41	4,004.12	3,991.44	14.22	14.22	89.84	78.92	120.98	57.75	29.36	28.39	2.034	
4,083.34	4,073.94	4,087.43	4,073.61	14.52	14.52	87.68	90.45	128.46	57.71	28.73	28.98	1.991	Collision Risk Procedures Req.
4,100.00	4,090.43	4,104.08	4,090.04	14.58	14.58	87.25	92.76	129.95	57.71	28.61	29.10	1.983	Collision Risk Procedures Req.
4,200.00	4,189.46	4,204.05	4,188.63	14.94	14.94	84.65	106.60	138.92	57.79	27.98	29.82	1.938	Collision Risk Procedures Req.
4,300.00	4,288.49	4,304.02	4,287.23	15.30	15.30	82.07	120.44	147.89	57.99	27.46	30.53	1.900	Collision Risk Procedures Req.
4,400.00	4,387.52	4,403.98	4,385.82	15.66	15.66	79.51	134.28	156.86	58.30	27.07	31.24	1.866	Collision Risk Procedures Req.
4,500.00	4,486.54	4,503.95	4,484.42	16.02	16.02	76.98	148.13	165.83	58.73	26.78	31.95	1.838	Collision Risk Procedures Req.
4,600.00	4,585.57	4,603.91	4,583.01	16.38	16.38	74.49	161.97	174.80	59.28	26.61	32.66	1.815	Collision Risk Procedures Req.
4,700.00	4,684.60	4,703.88	4,681.61	16.74	16.74	72.06	175.81	183.77	59.93	26.55	33.38	1.796	Collision Risk Procedures Req.

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,800.00	4,783.62	4,803.84	4,780.21	17.10	17.11	69.68	189.65	192.74	60.69	26.59	34.09	1.780	Collision Risk Procedures Req.
4,900.00	4,882.65	4,903.81	4,878.80	17.47	17.47	67.36	203.49	201.72	61.54	26.74	34.81	1.768	Collision Risk Procedures Req.
5,000.00	4,981.68	5,003.78	4,977.40	17.83	17.84	65.11	217.33	210.69	62.50	26.98	35.52	1.760	Collision Risk Procedures Req.
5,100.00	5,080.71	5,103.74	5,075.99	18.19	18.20	62.93	231.17	219.66	63.55	27.32	36.24	1.754	Collision Risk Procedures Req.
5,200.00	5,179.73	5,203.71	5,174.59	18.55	18.56	60.82	245.02	228.63	64.69	27.74	36.96	1.751	Collision Risk Procedures Req.
5,300.00	5,278.76	5,303.67	5,273.18	18.92	18.93	58.79	258.86	237.60	65.92	28.24	37.68	1.750	Collision Risk Procedures Req.
5,400.00	5,377.79	5,403.64	5,371.78	19.28	19.30	56.84	272.70	246.57	67.22	28.83	38.40	1.751	Collision Risk Procedures Req.
5,500.00	5,476.82	5,503.60	5,470.37	19.64	19.66	54.96	286.54	255.54	68.60	29.48	39.12	1.754	Collision Risk Procedures Req.
5,600.00	5,575.84	5,603.57	5,568.97	20.01	20.03	53.16	300.38	264.51	70.05	30.21	39.84	1.758	Collision Risk Procedures Req.
5,700.00	5,674.87	5,703.54	5,667.57	20.37	20.39	51.43	314.22	273.48	71.57	31.00	40.57	1.764	Collision Risk Procedures Req.
5,800.00	5,773.90	5,803.50	5,766.16	20.74	20.76	49.78	328.06	282.45	73.15	31.85	41.29	1.771	Collision Risk Procedures Req.
5,900.00	5,872.93	5,903.47	5,864.76	21.10	21.13	48.20	341.90	291.42	74.78	32.76	42.02	1.780	Collision Risk Procedures Req.
6,000.00	5,971.95	6,003.43	5,963.35	21.46	21.49	46.68	355.75	300.39	76.48	33.73	42.75	1.789	Collision Risk Procedures Req.
6,100.00	6,070.98	6,103.40	6,061.95	21.83	21.86	45.24	369.59	309.36	78.22	34.74	43.48	1.799	Collision Risk Procedures Req.
6,200.00	6,170.01	6,203.36	6,160.54	22.19	22.23	43.85	383.43	318.33	80.01	35.80	44.21	1.810	Collision Risk Procedures Req.
6,300.00	6,269.03	6,303.33	6,259.14	22.56	22.60	42.53	397.27	327.30	81.84	36.90	44.94	1.821	Collision Risk Procedures Req.
6,400.00	6,368.06	6,403.30	6,357.74	22.92	22.96	41.27	411.11	336.27	83.72	38.05	45.67	1.833	Collision Risk Procedures Req.
6,500.00	6,467.09	6,503.26	6,456.33	23.29	23.33	40.06	424.95	345.24	85.64	39.23	46.41	1.845	Collision Risk Procedures Req.
6,600.00	6,566.12	6,603.23	6,554.93	23.66	23.70	38.90	438.79	354.22	87.59	40.45	47.14	1.858	Collision Risk Procedures Req.
6,700.00	6,665.14	6,703.19	6,653.52	24.02	24.07	37.80	452.64	363.19	89.57	41.70	47.88	1.871	Collision Risk Procedures Req.
6,800.00	6,764.19	6,803.16	6,752.11	24.39	24.44	36.71	466.48	372.16	91.68	43.07	48.61	1.886	Collision Risk Procedures Req.
6,900.00	6,863.54	6,903.01	6,850.60	24.75	24.81	34.84	480.30	381.12	95.87	46.52	49.35	1.943	Collision Risk Procedures Req.
7,000.00	6,963.23	7,002.63	6,948.85	25.11	25.17	32.10	494.10	390.06	103.09	53.00	50.09	2.058	
7,100.00	7,063.13	7,105.09	7,050.15	25.47	25.55	29.17	507.01	398.43	112.27	61.37	50.90	2.206	
7,200.00	7,163.12	7,208.25	7,152.62	25.82	25.93	60.01	516.95	404.87	121.53	69.86	51.67	2.352	
7,300.00	7,263.12	7,312.01	7,256.05	26.18	26.30	58.35	523.82	409.32	128.61	76.21	52.40	2.454	
7,400.00	7,363.12	7,416.23	7,360.17	26.53	26.67	57.53	527.55	411.74	132.48	79.40	53.07	2.496	
7,500.00	7,463.12	7,519.18	7,463.12	26.88	27.02	57.37	528.27	412.20	133.22	79.51	53.72	2.480	
7,600.00	7,563.12	7,619.18	7,563.12	27.23	27.37	57.37	528.27	412.20	133.22	78.81	54.42	2.448	
7,700.00	7,663.12	7,719.18	7,663.12	27.59	27.73	57.37	528.27	412.20	133.22	78.10	55.12	2.417	
7,800.00	7,763.12	7,819.18	7,763.12	27.94	28.08	57.37	528.27	412.20	133.22	77.40	55.82	2.386	
7,800.45	7,763.57	7,819.63	7,763.57	27.94	28.08	142.39	528.27	412.20	133.22	77.40	55.83	2.386	
7,900.00	7,863.11	7,919.18	7,863.11	28.29	28.43	142.52	528.27	412.20	133.69	77.17	56.52	2.365	
8,000.00	7,962.10	8,018.17	7,962.10	28.62	28.77	145.09	528.27	412.20	144.40	87.22	57.18	2.525	
8,100.00	8,057.30	8,113.37	8,057.30	28.94	29.11	149.51	528.27	412.20	170.22	112.42	57.79	2.945	
8,200.00	8,145.81	8,201.88	8,145.81	29.25	29.42	153.77	528.27	412.20	212.03	153.68	58.35	3.634	
8,300.00	8,224.93	8,281.00	8,224.93	29.53	29.83	156.72	528.27	412.20	269.32	210.48	58.84	4.577	
8,400.00	8,292.28	8,435.68	8,377.85	29.79	30.33	162.77	528.30	392.32	331.96	274.57	57.40	5.784	
8,500.00	8,345.79	8,660.19	8,577.73	30.02	30.99	168.25	528.48	293.26	382.99	333.01	49.98	7.663	
8,600.00	8,383.84	8,938.46	8,748.91	30.24	31.64	172.48	528.87	77.45	407.69	370.78	36.91	11.046	
8,700.00	8,405.29	9,225.38	8,800.76	30.45	32.16	175.75	529.37	-201.82	396.60	366.02	30.58	12.970	
8,797.64	8,410.80	9,322.37	8,799.64	30.63	32.34	176.89	529.55	-298.81	389.45	358.42	31.04	12.548	
8,800.00	8,409.66	9,324.75	8,799.61	30.63	32.35	176.96	529.55	-301.19	390.55	359.50	31.05	12.577	
8,900.00	8,407.71	9,424.55	8,798.45	30.84	32.58	177.85	529.73	-400.98	391.05	359.43	31.63	12.365	
9,000.00	8,405.76	9,524.50	8,797.30	31.10	32.84	178.23	529.91	-500.93	391.75	359.50	32.25	12.149	
9,100.00	8,403.82	9,624.50	8,796.14	31.38	33.15	178.25	530.09	-600.92	392.53	359.64	32.89	11.933	
9,200.00	8,401.87	9,724.50	8,794.98	31.71	33.48	178.25	530.27	-700.91	393.32	359.72	33.60	11.705	
9,300.00	8,399.92	9,824.49	8,793.82	32.06	33.85	178.25	530.45	-800.90	394.11	359.74	34.37	11.467	
9,400.00	8,397.98	9,924.49	8,792.67	32.46	34.25	178.26	530.63	-900.89	394.90	359.71	35.19	11.222	
9,500.00	8,396.03	10,024.49	8,791.51	32.88	34.68	178.26	530.81	-1,000.88	395.69	359.63	36.06	10.973	
9,600.00	8,394.08	10,124.48	8,790.35	33.34	35.15	178.27	530.99	-1,100.87	396.48	359.50	36.97	10.723	
9,700.00	8,392.14	10,224.48	8,789.19	33.83	35.64	178.27	531.17	-1,200.86	397.27	359.33	37.93	10.473	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 552H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
9,800.00	8,390.19	10,324.48	8,788.04	34.35	36.16	178.27	531.35	-1,300.85	398.05	359.12	38.93	10.224	
9,900.00	8,388.24	10,424.47	8,786.88	34.89	36.70	178.28	531.53	-1,400.84	398.84	358.88	39.97	9.979	
10,000.00	8,386.29	10,524.47	8,785.72	35.47	37.27	178.28	531.71	-1,500.83	399.63	358.60	41.04	9.739	
10,100.00	8,384.35	10,624.47	8,784.56	36.06	37.87	178.28	531.89	-1,600.82	400.42	358.28	42.14	9.503	
10,200.00	8,382.40	10,724.46	8,783.40	36.68	38.49	178.29	532.07	-1,700.81	401.21	357.94	43.27	9.273	
10,300.00	8,380.46	10,824.46	8,782.25	37.33	39.13	178.29	532.25	-1,800.80	402.00	357.57	44.42	9.049	
10,400.00	8,378.52	10,924.46	8,781.09	38.00	39.79	178.29	532.43	-1,900.79	402.78	357.18	45.60	8.832	
10,500.00	8,376.57	11,024.46	8,779.93	38.68	40.47	178.30	532.61	-2,000.78	403.56	356.75	46.81	8.622	
10,600.00	8,374.63	11,124.45	8,778.77	39.39	41.18	178.30	532.79	-2,100.77	404.35	356.31	48.03	8.418	
10,700.00	8,372.70	11,224.45	8,777.62	40.12	41.90	178.30	532.97	-2,200.76	405.13	355.85	49.28	8.221	
10,800.00	8,370.76	11,324.45	8,776.46	40.86	42.63	178.31	533.15	-2,300.75	405.91	355.36	50.54	8.031	
10,900.00	8,368.82	11,424.44	8,775.30	41.62	43.39	178.31	533.33	-2,400.74	406.68	354.86	51.82	7.848	
11,000.00	8,366.89	11,524.44	8,774.14	42.40	44.16	178.31	533.51	-2,500.73	407.46	354.34	53.12	7.671	
11,100.00	8,364.95	11,624.44	8,772.99	43.19	44.94	178.32	533.69	-2,600.72	408.24	353.81	54.43	7.501	
11,200.00	8,363.02	11,724.43	8,771.83	44.00	45.74	178.32	533.87	-2,700.71	409.01	353.26	55.75	7.337	
11,300.00	8,361.09	11,824.43	8,770.67	44.82	46.55	178.32	534.05	-2,800.70	409.78	352.70	57.09	7.178	
11,400.00	8,359.16	11,924.43	8,769.51	45.65	47.37	178.32	534.23	-2,900.69	410.55	352.12	58.43	7.026	
11,500.00	8,357.23	12,024.42	8,768.36	46.50	48.21	178.33	534.41	-3,000.68	411.33	351.53	59.79	6.879	
11,600.00	8,355.31	12,124.42	8,767.20	47.35	49.05	178.33	534.59	-3,100.67	412.09	350.93	61.16	6.738	
11,700.00	8,353.38	12,224.42	8,766.04	48.22	49.91	178.33	534.77	-3,200.66	412.86	350.32	62.54	6.602	
11,800.00	8,351.46	12,324.42	8,764.88	49.09	50.78	178.34	534.94	-3,300.65	413.63	349.70	63.92	6.471	
11,900.00	8,349.53	12,424.41	8,763.73	49.98	51.65	178.34	535.12	-3,400.64	414.39	349.07	65.32	6.344	
12,000.00	8,347.61	12,524.41	8,762.57	50.88	52.54	178.34	535.30	-3,500.63	415.16	348.43	66.72	6.222	
12,100.00	8,345.69	12,624.41	8,761.41	51.78	53.44	178.35	535.48	-3,600.62	415.92	347.79	68.13	6.105	
12,200.00	8,343.77	12,724.40	8,760.25	52.69	54.34	178.35	535.66	-3,700.61	416.68	347.13	69.55	5.991	
12,300.00	8,341.86	12,824.40	8,759.09	53.61	55.25	178.35	535.84	-3,800.60	417.44	346.47	70.97	5.882	
12,400.00	8,339.94	12,924.40	8,757.94	54.54	56.17	178.36	536.02	-3,900.59	418.20	345.80	72.40	5.776	
12,500.00	8,338.03	13,024.40	8,756.78	55.47	57.10	178.36	536.20	-4,000.58	418.95	345.12	73.83	5.674	
12,600.00	8,336.11	13,124.39	8,755.62	56.42	58.03	178.36	536.38	-4,100.57	419.71	344.43	75.28	5.576	
12,700.00	8,334.20	13,224.39	8,754.46	57.36	58.97	178.37	536.56	-4,200.56	420.46	343.74	76.72	5.480	
12,800.00	8,332.29	13,324.39	8,753.31	58.32	59.91	178.37	536.74	-4,300.55	421.21	343.04	78.17	5.388	
12,900.00	8,330.38	13,424.38	8,752.15	59.28	60.86	178.37	536.92	-4,400.54	421.97	342.34	79.63	5.299	
13,000.00	8,328.47	13,524.38	8,750.99	60.24	61.82	178.37	537.10	-4,500.53	422.72	341.64	81.08	5.213	
13,100.00	8,326.56	13,624.38	8,749.83	61.21	62.78	178.38	537.28	-4,600.52	423.47	340.93	82.55	5.130	
13,200.00	8,324.65	13,724.38	8,748.68	62.19	63.75	178.38	537.46	-4,700.51	424.23	340.21	84.01	5.049	
13,300.00	8,322.74	13,824.37	8,747.52	63.17	64.72	178.38	537.64	-4,800.50	424.98	339.50	85.48	4.971	
13,400.00	8,320.82	13,924.37	8,746.36	64.15	65.70	178.39	537.82	-4,900.49	425.73	338.77	86.96	4.896	
13,500.00	8,318.91	14,024.37	8,745.20	65.14	66.68	178.39	538.00	-5,000.48	426.49	338.05	88.44	4.823	
13,600.00	8,317.00	14,124.36	8,744.05	66.14	67.67	178.39	538.18	-5,100.47	427.24	337.32	89.92	4.752	
13,700.00	8,315.09	14,224.36	8,742.89	67.13	68.66	178.40	538.36	-5,200.46	427.99	336.59	91.40	4.683	
13,800.00	8,313.18	14,324.36	8,741.73	68.13	69.65	178.40	538.54	-5,300.45	428.75	335.86	92.89	4.616	
13,900.00	8,311.27	14,424.36	8,740.57	69.14	70.61	178.40	538.72	-5,400.44	429.50	335.22	94.28	4.555	
13,954.43	8,310.23	14,473.84	8,740.00	69.69	71.02	178.40	538.81	-5,449.92	429.94	335.11	94.83	4.534	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-59.98	0.84	59.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-59.98	0.84	59.99	59.45	0.54	111.558	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-59.98	0.84	59.99	58.73	1.25	47.811	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-59.98	0.84	59.99	58.01	1.97	30.425	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-59.98	0.84	59.99	57.30	2.69	22.312	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-59.98	0.84	59.99	56.58	3.41	17.615	
524.83	524.83	524.83	524.83	1.79	1.79	179.20	-59.98	0.84	59.99	56.40	3.58	16.740	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-59.98	0.84	59.99	55.86	4.12	14.551	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-59.98	0.84	59.99	55.62	4.36	13.754	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-59.98	0.84	59.99	55.15	4.84	12.395	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-59.98	0.84	59.99	54.43	5.56	10.796	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-59.98	0.84	59.99	53.71	6.27	9.562	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-59.98	0.84	59.99	53.00	6.99	8.581	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-59.98	0.84	59.99	52.28	7.71	7.783	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-59.98	0.84	59.99	51.56	8.42	7.121	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-59.98	0.84	59.99	50.84	9.14	6.562	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-59.98	0.84	59.99	50.13	9.86	6.085	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-59.98	0.84	59.99	49.41	10.57	5.672	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-59.98	0.84	59.99	48.69	11.29	5.312	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-59.98	0.84	59.99	47.98	12.01	4.995	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-59.98	0.84	59.99	47.26	12.73	4.714	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-59.98	0.84	59.99	46.54	13.44	4.462	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-59.98	0.84	59.99	45.83	14.16	4.236	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-59.98	0.84	59.99	45.11	14.88	4.032	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-59.98	0.84	59.99	44.39	15.59	3.847	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-59.98	0.84	59.99	43.68	16.31	3.678	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-59.98	0.84	59.99	42.96	17.03	3.523	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-59.98	0.84	59.99	42.24	17.74	3.381	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-59.98	0.84	59.99	41.52	18.46	3.249	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-59.98	0.84	59.99	40.81	19.18	3.128	
2,800.00	2,800.00	2,800.00	2,800.00	9.95	9.95	179.20	-59.98	0.84	59.99	40.09	19.90	3.015 CC	
2,804.45	2,804.45	2,804.45	2,804.45	9.96	9.96	145.88	-59.98	0.84	59.99	40.06	19.93	3.010	
2,900.00	2,900.00	2,900.00	2,900.00	10.31	10.31	146.11	-59.98	0.84	60.35	39.74	20.61	2.928 ES	
3,000.00	2,999.93	2,999.93	2,999.93	10.66	10.66	147.84	-59.98	0.84	63.27	41.95	21.33	2.967	
3,100.00	3,099.68	3,099.68	3,099.68	11.02	11.02	150.85	-59.98	0.84	69.28	47.24	22.04	3.144	
3,200.00	3,199.13	3,200.50	3,200.50	11.37	11.38	154.57	-59.54	0.86	78.15	55.40	22.75	3.435	
3,300.00	3,298.22	3,302.86	3,302.79	11.73	11.75	158.70	-55.91	0.98	87.05	63.60	23.45	3.712	
3,400.00	3,397.24	3,405.65	3,405.31	12.08	12.12	162.69	-48.59	1.24	93.26	69.13	24.13	3.865	
3,500.00	3,496.27	3,508.66	3,507.73	12.44	12.49	166.81	-37.57	1.62	96.41	71.63	24.79	3.890	
3,600.00	3,595.30	3,609.71	3,607.83	12.79	12.84	171.23	-23.81	2.10	97.28	71.80	25.48	3.818	
3,700.00	3,694.32	3,709.42	3,706.57	13.15	13.20	175.56	-9.94	2.59	98.44	72.24	26.20	3.757	
3,800.00	3,793.35	3,809.14	3,805.32	13.51	13.55	179.77	3.93	3.07	100.16	73.23	26.93	3.720	
3,900.00	3,892.38	3,908.86	3,904.07	13.86	13.91	-176.19	17.80	3.56	102.39	74.74	27.65	3.703	
4,000.00	3,991.41	4,008.58	4,002.82	14.22	14.26	-172.33	31.67	4.04	105.12	76.74	28.38	3.705	
4,100.00	4,090.43	4,108.30	4,101.56	14.58	14.62	-168.69	45.54	4.52	108.30	79.20	29.10	3.722	
4,200.00	4,189.46	4,208.01	4,200.31	14.94	14.97	-165.26	59.40	5.01	111.89	82.06	29.82	3.752	
4,300.00	4,288.49	4,307.73	4,299.06	15.30	15.33	-162.06	73.27	5.49	115.86	85.31	30.55	3.793	
4,400.00	4,387.52	4,407.45	4,397.81	15.66	15.69	-159.08	87.14	5.98	120.16	88.89	31.27	3.843	
4,500.00	4,486.54	4,507.17	4,496.55	16.02	16.05	-156.31	101.01	6.46	124.77	92.78	31.99	3.900	
4,600.00	4,585.57	4,606.88	4,595.30	16.38	16.41	-153.74	114.88	6.95	129.65	96.94	32.71	3.963	
4,700.00	4,684.60	4,706.60	4,694.05	16.74	16.77	-151.36	128.75	7.43	134.77	101.34	33.43	4.031	
4,800.00	4,783.62	4,806.32	4,792.80	17.10	17.12	-149.16	142.62	7.92	140.11	105.96	34.15	4.102	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,900.00	4,882.65	4,906.04	4,891.54	17.47	17.48	-147.12	156.49	8.40	145.64	110.76	34.87	4.176	
5,000.00	4,981.68	5,005.76	4,990.29	17.83	17.84	-145.24	170.36	8.88	151.34	115.74	35.59	4.252	
5,100.00	5,080.71	5,105.47	5,089.04	18.19	18.20	-143.49	184.23	9.37	157.19	120.87	36.31	4.329	
5,200.00	5,179.73	5,205.19	5,187.79	18.55	18.57	-141.87	198.10	9.85	163.17	126.14	37.03	4.406	
5,300.00	5,278.76	5,304.91	5,286.53	18.92	18.93	-140.36	211.97	10.34	169.28	131.53	37.75	4.484	
5,400.00	5,377.79	5,404.63	5,385.28	19.28	19.29	-138.96	225.84	10.82	175.50	137.02	38.47	4.561	
5,500.00	5,476.82	5,504.35	5,484.03	19.64	19.65	-137.66	239.71	11.31	181.81	142.62	39.19	4.639	
5,600.00	5,575.84	5,604.06	5,582.78	20.01	20.01	-136.44	253.58	11.79	188.21	148.30	39.91	4.715	
5,700.00	5,674.87	5,703.78	5,681.52	20.37	20.37	-135.31	267.45	12.27	194.69	154.06	40.63	4.791	
5,800.00	5,773.90	5,803.50	5,780.27	20.74	20.74	-134.24	281.32	12.76	201.24	159.89	41.36	4.866	
5,900.00	5,872.93	5,903.22	5,879.02	21.10	21.10	-133.25	295.19	13.24	207.86	165.78	42.08	4.940	
6,000.00	5,971.95	6,002.94	5,977.76	21.46	21.46	-132.32	309.06	13.73	214.53	171.73	42.80	5.013	
6,100.00	6,070.98	6,102.65	6,076.51	21.83	21.82	-131.44	322.93	14.21	221.26	177.74	43.52	5.084	
6,200.00	6,170.01	6,202.37	6,175.26	22.19	22.19	-130.61	336.80	14.70	228.04	183.80	44.24	5.155	
6,300.00	6,269.03	6,302.09	6,274.01	22.56	22.55	-129.84	350.67	15.18	234.86	189.90	44.96	5.224	
6,400.00	6,368.06	6,401.81	6,372.75	22.92	22.91	-129.10	364.54	15.66	241.72	196.03	45.68	5.291	
6,500.00	6,467.09	6,501.52	6,471.50	23.29	23.28	-128.41	378.41	16.15	248.62	202.21	46.41	5.357	
6,600.00	6,566.12	6,601.24	6,570.25	23.66	23.64	-127.76	392.28	16.63	255.55	208.42	47.13	5.422	
6,700.00	6,665.14	6,700.96	6,669.00	24.02	24.01	-127.14	406.14	17.12	262.51	214.66	47.85	5.486	
6,800.00	6,764.19	6,800.68	6,767.75	24.39	24.37	-126.56	420.01	17.60	269.44	220.87	48.57	5.547	
6,900.00	6,863.54	6,900.41	6,866.51	24.75	24.73	-125.64	433.89	18.09	274.93	225.64	49.29	5.578	
7,000.00	6,963.23	7,000.06	6,965.19	25.11	25.10	-124.16	447.75	18.57	278.54	228.53	50.01	5.570	
7,100.00	7,063.13	7,099.51	7,063.66	25.47	25.46	-122.09	461.58	19.05	280.47	229.75	50.72	5.530	
7,200.00	7,163.12	7,198.64	7,161.83	25.82	25.82	-86.14	475.37	19.53	281.11	229.68	51.43	5.466	
7,300.00	7,263.12	7,297.67	7,259.90	26.18	26.19	-83.34	489.14	20.02	281.91	229.77	52.14	5.407	
7,400.00	7,363.12	7,396.69	7,357.96	26.53	26.55	-80.56	502.91	20.50	283.39	230.54	52.85	5.362	
7,500.00	7,463.12	7,495.72	7,456.02	26.88	26.91	-77.82	516.69	20.98	285.54	231.98	53.56	5.331	
7,600.00	7,563.12	7,594.75	7,554.09	27.23	27.27	-75.12	530.46	21.46	288.35	234.08	54.27	5.313	
7,700.00	7,663.12	7,693.78	7,652.15	27.59	27.64	-72.48	544.23	21.94	291.80	236.81	54.98	5.307	
7,800.00	7,763.12	7,792.80	7,750.21	27.94	28.00	-69.90	558.01	22.42	295.86	240.16	55.70	5.312	
7,900.00	7,863.11	7,891.82	7,848.27	28.29	28.36	17.63	571.78	22.90	299.95	243.54	56.41	5.317	
8,000.00	7,962.10	7,989.95	7,945.44	28.62	28.72	21.15	585.43	23.38	292.76	235.66	57.10	5.127	
8,100.00	8,057.30	8,085.67	8,040.25	28.94	29.07	26.95	598.58	23.84	270.92	213.14	57.78	4.689	
8,200.00	8,145.81	8,177.08	8,131.02	29.25	29.41	36.34	609.36	24.21	236.24	177.78	58.45	4.041	
8,300.00	8,224.93	8,259.19	8,212.75	29.53	29.70	51.27	617.19	24.49	193.74	134.63	59.11	3.278	
8,400.00	8,292.28	8,329.28	8,282.64	29.79	29.96	71.86	622.49	24.67	155.51	95.73	59.78	2.601	
8,471.29	8,331.94	8,370.62	8,323.91	29.96	30.11	86.31	625.01	24.76	144.34	84.17	60.18	2.399 SF	
8,500.00	8,345.79	8,385.06	8,338.33	30.02	30.16	91.10	625.79	24.79	146.44	86.17	60.27	2.430	
8,600.00	8,383.84	8,424.78	8,378.00	30.24	30.30	100.85	627.64	24.85	185.04	124.74	60.30	3.069	
8,700.00	8,405.29	8,447.22	8,400.43	30.45	30.38	98.57	628.51	24.88	256.83	196.61	60.22	4.265	
8,800.00	8,409.66	8,451.93	8,405.14	30.63	30.40	85.86	628.67	24.89	343.39	283.24	60.15	5.709	
8,900.00	8,407.71	8,450.02	8,403.23	30.84	30.39	84.61	628.61	24.89	436.49	376.38	60.10	7.262	
9,000.00	8,405.76	8,447.99	8,401.19	31.10	30.38	82.84	628.53	24.88	532.96	472.88	60.08	8.871	
9,100.00	8,403.82	8,445.86	8,399.06	31.38	30.38	81.41	628.46	24.88	631.02	570.95	60.07	10.505	
9,200.00	8,401.87	8,443.72	8,396.92	31.71	30.37	80.33	628.38	24.88	729.63	669.57	60.06	12.148	
9,300.00	8,399.92	8,441.57	8,394.78	32.06	30.36	79.26	628.30	24.88	828.57	768.51	60.06	13.796	
9,400.00	8,397.98	8,439.42	8,392.64	32.46	30.35	78.19	628.22	24.87	927.72	867.67	60.06	15.448	
9,500.00	8,396.03	8,437.27	8,390.48	32.88	30.35	77.12	628.14	24.87	1,027.04	966.98	60.06	17.101	
9,600.00	8,394.08	8,435.12	8,388.33	33.34	30.34	76.06	628.06	24.87	1,126.48	1,066.42	60.06	18.757	
9,700.00	8,392.14	8,432.96	8,386.17	33.83	30.33	75.01	627.97	24.86	1,226.00	1,165.94	60.06	20.413	
9,800.00	8,390.19	8,430.79	8,384.01	34.35	30.32	73.96	627.89	24.86	1,325.59	1,265.52	60.06	22.069	
9,900.00	8,388.24	11,015.86	9,740.36	34.89	38.39	179.49	531.58	-1,424.85	1,352.48	1,311.89	40.59	33.321	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
10,000.00	8,386.29	11,115.86	9,738.25	35.47	38.86	179.49	531.75	-1,524.82	1,352.31	1,310.77	41.54	32.554	
10,100.00	8,384.35	11,215.86	9,736.13	36.06	39.35	179.49	531.92	-1,624.80	1,352.14	1,309.61	42.53	31.792	
10,200.00	8,382.40	11,315.86	9,734.01	36.68	39.87	179.49	532.09	-1,724.78	1,351.97	1,308.42	43.55	31.042	
10,300.00	8,380.46	11,415.86	9,731.90	37.33	40.42	179.49	532.26	-1,824.76	1,351.80	1,307.19	44.61	30.305	
10,400.00	8,378.52	11,515.86	9,729.78	38.00	40.98	179.49	532.44	-1,924.74	1,351.62	1,305.93	45.69	29.582	
10,500.00	8,376.57	11,615.86	9,727.66	38.68	41.57	179.49	532.61	-2,024.71	1,351.45	1,304.65	46.80	28.877	
10,600.00	8,374.63	11,715.86	9,725.55	39.39	42.18	179.49	532.79	-2,124.69	1,351.27	1,303.33	47.94	28.189	
10,700.00	8,372.70	11,815.86	9,723.43	40.12	42.81	179.49	532.96	-2,224.67	1,351.09	1,302.00	49.10	27.520	
10,800.00	8,370.76	11,915.87	9,721.31	40.86	43.47	179.49	533.14	-2,324.65	1,350.91	1,300.64	50.28	26.869	
10,900.00	8,368.82	12,015.87	9,719.20	41.62	44.14	179.49	533.31	-2,424.63	1,350.73	1,299.25	51.48	26.239	
11,000.00	8,366.89	12,115.87	9,717.08	42.40	44.82	179.49	533.49	-2,524.60	1,350.55	1,297.85	52.70	25.627	
11,100.00	8,364.95	12,215.87	9,714.96	43.19	45.53	179.49	533.67	-2,624.58	1,350.37	1,296.43	53.94	25.035	
11,200.00	8,363.02	12,315.87	9,712.85	44.00	46.25	179.49	533.85	-2,724.56	1,350.18	1,294.99	55.19	24.462	
11,300.00	8,361.09	12,415.87	9,710.73	44.82	46.99	179.49	534.03	-2,824.54	1,349.99	1,293.53	56.47	23.908	
11,400.00	8,359.16	12,515.87	9,708.61	45.65	47.74	179.49	534.21	-2,924.52	1,349.81	1,292.05	57.75	23.373	
11,500.00	8,357.23	12,615.87	9,706.49	46.50	48.50	179.49	534.39	-3,024.49	1,349.62	1,290.57	59.05	22.855	
11,600.00	8,355.31	12,715.87	9,704.38	47.35	49.28	179.49	534.57	-3,124.47	1,349.43	1,289.06	60.36	22.356	
11,700.00	8,353.38	12,815.87	9,702.26	48.22	50.07	179.49	534.75	-3,224.45	1,349.23	1,287.55	61.69	21.873	
11,800.00	8,351.46	12,915.87	9,700.14	49.09	50.88	179.49	534.93	-3,324.43	1,349.04	1,286.02	63.02	21.406	
11,900.00	8,349.53	13,015.87	9,698.02	49.98	51.70	179.49	535.11	-3,424.40	1,348.85	1,284.48	64.37	20.956	
12,000.00	8,347.61	13,115.87	9,695.91	50.88	52.52	179.49	535.30	-3,524.38	1,348.65	1,282.93	65.72	20.521	
12,100.00	8,345.69	13,215.87	9,693.79	51.78	53.36	179.49	535.48	-3,624.36	1,348.45	1,281.36	67.09	20.100	
12,200.00	8,343.77	13,315.87	9,691.67	52.69	54.21	179.49	535.67	-3,724.34	1,348.25	1,279.79	68.46	19.694	
12,300.00	8,341.86	13,415.87	9,689.55	53.61	55.07	179.49	535.85	-3,824.32	1,348.05	1,278.21	69.84	19.302	
12,400.00	8,339.94	13,515.87	9,687.44	54.54	55.93	179.49	536.04	-3,924.29	1,347.85	1,276.62	71.23	18.922	
12,500.00	8,338.03	13,615.87	9,685.32	55.47	56.81	179.49	536.23	-4,024.27	1,347.65	1,275.02	72.63	18.556	
12,600.00	8,336.11	13,715.87	9,683.20	56.42	57.69	179.49	536.41	-4,124.25	1,347.44	1,273.41	74.03	18.201	
12,700.00	8,334.20	13,815.87	9,681.08	57.36	58.59	179.49	536.60	-4,224.23	1,347.24	1,271.80	75.44	17.858	
12,800.00	8,332.29	13,915.87	9,678.96	58.32	59.49	179.49	536.79	-4,324.20	1,347.03	1,270.17	76.86	17.526	
12,900.00	8,330.38	14,015.87	9,676.85	59.28	60.39	179.49	536.98	-4,424.17	1,346.82	1,268.54	78.28	17.205	
13,000.00	8,328.47	14,115.86	9,674.73	60.24	61.31	179.49	537.16	-4,524.15	1,346.62	1,266.91	79.71	16.895	
13,100.00	8,326.56	14,215.86	9,672.61	61.21	62.23	179.49	537.34	-4,624.12	1,346.41	1,265.27	81.14	16.594	
13,200.00	8,324.65	14,315.86	9,670.50	62.19	63.15	179.49	537.52	-4,724.10	1,346.20	1,263.63	82.58	16.302	
13,300.00	8,322.74	14,415.85	9,668.38	63.17	64.09	179.49	537.70	-4,824.07	1,346.00	1,261.98	84.02	16.020	
13,400.00	8,320.82	14,515.85	9,666.26	64.15	65.03	179.49	537.88	-4,924.04	1,345.79	1,260.33	85.47	15.747	
13,500.00	8,318.91	14,615.85	9,664.15	65.14	65.97	179.49	538.06	-5,024.02	1,345.59	1,258.67	86.92	15.481	
13,600.00	8,317.00	14,715.84	9,662.03	66.14	66.92	179.49	538.23	-5,123.99	1,345.38	1,257.01	88.37	15.224	
13,691.42	8,315.26	14,807.26	9,660.10	67.05	67.79	179.49	538.39	-5,215.39	1,345.20	1,255.49	89.71	14.996	
13,700.00	8,315.09	14,811.84	9,660.00	67.13	67.84	179.49	538.40	-5,219.97	1,345.18	1,255.40	89.79	14.982	
13,800.00	8,313.18	14,811.84	9,660.00	68.13	67.84	179.49	538.40	-5,219.97	1,348.99	1,258.90	90.09	14.973	
13,900.00	8,311.27	14,811.84	9,660.00	69.14	67.84	179.49	538.40	-5,219.97	1,360.15	1,269.98	90.18	15.083	
13,954.43	8,310.23	14,811.84	9,660.00	69.69	67.84	179.49	538.40	-5,219.97	1,369.27	1,279.14	90.13	15.192	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-89.97	1.26	89.98				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-89.97	1.26	89.98	89.44	0.54	167.338	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-89.97	1.26	89.98	88.72	1.25	71.716	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-89.97	1.26	89.98	88.01	1.97	45.638	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-89.97	1.26	89.98	87.29	2.69	33.468	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-89.97	1.26	89.98	86.57	3.41	26.422	
524.72	524.72	524.72	524.72	1.79	1.79	179.20	-89.97	1.26	89.98	86.40	3.58	25.115	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-89.97	1.26	89.98	85.86	4.12	21.827	
633.33	633.33	633.33	633.33	2.18	2.18	179.20	-89.97	1.26	89.98	85.62	4.36	20.631	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-89.97	1.26	89.98	85.14	4.84	18.593	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-89.97	1.26	89.98	84.42	5.56	16.194	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-89.97	1.26	89.98	83.71	6.27	14.343	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-89.97	1.26	89.98	82.99	6.99	12.872	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-89.97	1.26	89.98	82.27	7.71	11.675	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-89.97	1.26	89.98	81.55	8.42	10.681	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-89.97	1.26	89.98	80.84	9.14	9.843	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-89.97	1.26	89.98	80.12	9.86	9.128	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-89.97	1.26	89.98	79.40	10.57	8.509	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-89.97	1.26	89.98	78.69	11.29	7.968	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-89.97	1.26	89.98	77.97	12.01	7.493	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-89.97	1.26	89.98	77.25	12.73	7.071	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-89.97	1.26	89.98	76.54	13.44	6.694	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-89.97	1.26	89.98	75.82	14.16	6.355	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-89.97	1.26	89.98	75.10	14.88	6.048	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-89.97	1.26	89.98	74.39	15.59	5.770	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-89.97	1.26	89.98	73.67	16.31	5.517	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-89.97	1.26	89.98	72.95	17.03	5.284	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-89.97	1.26	89.98	72.23	17.74	5.071	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-89.97	1.26	89.98	71.52	18.46	4.874	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-89.97	1.26	89.98	70.80	19.18	4.692	
2,710.00	2,710.00	2,710.00	2,710.00	9.62	9.62	179.20	-89.97	1.26	89.98	70.73	19.25	4.674	CC
2,800.00	2,800.00	2,799.95	2,799.95	9.95	9.94	178.92	-89.98	1.70	89.99	70.10	19.89	4.524	
2,900.00	2,900.00	2,899.75	2,899.68	10.31	10.28	143.55	-90.02	5.17	90.52	69.93	20.59	4.396	ES, SF
3,000.00	2,999.93	2,999.28	2,998.97	10.66	10.63	140.55	-90.10	12.10	93.91	72.63	21.29	4.412	
3,100.00	3,099.68	3,098.68	3,097.87	11.02	10.97	137.33	-90.22	22.04	100.64	78.66	21.98	4.578	
3,200.00	3,199.13	3,198.17	3,196.81	11.37	11.31	135.53	-90.35	32.45	110.18	87.50	22.68	4.858	
3,300.00	3,298.22	3,297.48	3,295.57	11.73	11.66	135.07	-90.47	42.83	121.94	98.56	23.38	5.216	
3,400.00	3,397.24	3,396.75	3,394.30	12.08	12.00	134.90	-90.60	53.21	134.00	109.93	24.08	5.566	
3,500.00	3,496.27	3,496.01	3,493.02	12.44	12.35	134.76	-90.72	63.59	146.07	121.29	24.78	5.896	
3,600.00	3,595.30	3,595.35	3,591.81	12.79	12.70	134.63	-90.85	73.97	158.13	132.66	25.48	6.207	
3,700.00	3,694.32	3,695.87	3,691.96	13.15	13.05	135.17	-90.95	82.54	169.79	143.60	26.19	6.483	
3,800.00	3,793.35	3,796.33	3,792.29	13.51	13.40	136.74	-91.01	87.59	180.81	153.91	26.90	6.721	
3,900.00	3,892.38	3,896.44	3,892.38	13.86	13.75	139.17	-91.03	89.12	191.43	163.83	27.61	6.934	
4,000.00	3,991.41	3,995.46	3,991.41	14.22	14.10	141.73	-91.03	89.12	202.21	173.89	28.32	7.141	
4,100.00	4,090.43	4,094.49	4,090.43	14.58	14.45	144.04	-91.03	89.12	213.34	184.31	29.03	7.349	
4,200.00	4,189.46	4,193.52	4,189.46	14.94	14.81	146.12	-91.03	89.12	224.79	195.05	29.74	7.558	
4,300.00	4,288.49	4,292.55	4,288.49	15.30	15.16	147.99	-91.03	89.12	236.50	206.05	30.46	7.765	
4,400.00	4,387.52	4,391.57	4,387.52	15.66	15.51	149.69	-91.03	89.12	248.44	217.27	31.17	7.970	
4,500.00	4,486.54	4,490.60	4,486.54	16.02	15.87	151.23	-91.03	89.12	260.58	228.69	31.88	8.173	
4,600.00	4,585.57	4,589.63	4,585.57	16.38	16.22	152.63	-91.03	89.12	272.88	240.28	32.60	8.371	
4,700.00	4,684.60	4,688.65	4,684.60	16.74	16.57	153.92	-91.03	89.12	285.33	252.02	33.31	8.565	
4,800.00	4,783.62	4,787.68	4,783.62	17.10	16.93	155.09	-91.03	89.12	297.91	263.89	34.03	8.755	

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

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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	Warning
4,900.00	4,882.65	4,886.71	4,882.65	17.47	17.28	156.17	-91.03	89.12	310.61	275.87	34.74	8.940	
5,000.00	4,981.68	4,985.74	4,981.68	17.83	17.64	157.16	-91.03	89.12	323.41	287.95	35.46	9.121	
5,100.00	5,080.71	5,084.76	5,080.71	18.19	17.99	158.08	-91.03	89.12	336.29	300.12	36.17	9.296	
5,200.00	5,179.73	5,183.79	5,179.73	18.55	18.34	158.93	-91.03	89.12	349.25	312.36	36.89	9.467	
5,300.00	5,278.76	5,282.82	5,278.76	18.92	18.70	159.72	-91.03	89.12	362.29	324.68	37.61	9.633	
5,400.00	5,377.79	5,381.85	5,377.79	19.28	19.05	160.46	-91.03	89.12	375.39	337.06	38.32	9.795	
5,500.00	5,476.82	5,480.87	5,476.82	19.64	19.41	161.14	-91.03	89.12	388.54	349.50	39.04	9.952	
5,600.00	5,575.84	5,579.90	5,575.84	20.01	19.76	161.79	-91.03	89.12	401.74	361.99	39.76	10.105	
5,700.00	5,674.87	5,678.93	5,674.87	20.37	20.11	162.39	-91.03	89.12	415.00	374.52	40.48	10.253	
5,800.00	5,773.90	5,777.96	5,773.90	20.74	20.47	162.95	-91.03	89.12	428.29	387.10	41.19	10.397	
5,900.00	5,872.93	5,876.98	5,872.93	21.10	20.82	163.48	-91.03	89.12	441.62	399.71	41.91	10.537	
6,000.00	5,971.95	5,976.01	5,971.95	21.46	21.18	163.97	-91.03	89.12	454.99	412.36	42.63	10.673	
6,100.00	6,070.98	6,075.04	6,070.98	21.83	21.53	164.44	-91.03	89.12	468.39	425.04	43.35	10.805	
6,200.00	6,170.01	6,174.06	6,170.01	22.19	21.89	164.89	-91.03	89.12	481.81	437.75	44.07	10.934	
6,300.00	6,269.03	6,273.09	6,269.03	22.56	22.24	165.31	-91.03	89.12	495.27	450.48	44.79	11.059	
6,400.00	6,368.06	6,372.12	6,368.06	22.92	22.59	165.70	-91.03	89.12	508.75	463.24	45.50	11.180	
6,500.00	6,467.09	6,471.15	6,467.09	23.29	22.95	166.08	-91.03	89.12	522.25	476.03	46.22	11.298	
6,600.00	6,566.12	6,570.17	6,566.12	23.66	23.30	166.44	-91.03	89.12	535.77	488.83	46.94	11.413	
6,700.00	6,665.14	6,669.20	6,665.14	24.02	23.66	166.78	-91.03	89.12	549.31	501.65	47.66	11.525	
6,800.00	6,764.19	6,768.24	6,764.19	24.39	24.01	167.12	-91.03	89.12	562.77	514.39	48.38	11.632	
6,900.00	6,863.54	6,867.60	6,863.54	24.75	24.37	167.42	-91.03	89.12	573.81	524.71	49.10	11.686	
7,000.00	6,963.23	6,967.28	6,963.23	25.11	24.72	167.62	-91.03	89.12	581.47	531.65	49.82	11.672	
7,100.00	7,063.13	7,067.18	7,063.13	25.47	25.08	167.73	-91.03	89.12	585.73	535.19	50.53	11.591	
7,200.00	7,163.12	7,167.17	7,163.12	25.82	25.44	-158.93	-91.03	89.12	586.68	535.44	51.25	11.448	
7,300.00	7,263.12	7,267.17	7,263.12	26.18	25.80	-158.93	-91.03	89.12	586.68	534.73	51.96	11.292	
7,400.00	7,363.12	7,367.17	7,363.12	26.53	26.16	-158.93	-91.03	89.12	586.68	534.02	52.67	11.140	
7,500.00	7,463.12	7,467.17	7,463.12	26.88	26.51	-158.93	-91.03	89.12	586.68	533.30	53.38	10.991	
7,600.00	7,563.12	7,567.17	7,563.12	27.23	26.87	-158.93	-91.03	89.12	586.68	532.59	54.09	10.847	
7,700.00	7,663.12	7,667.17	7,663.12	27.59	27.23	-158.93	-91.03	89.12	586.68	531.88	54.80	10.706	
7,800.00	7,763.12	7,767.17	7,763.12	27.94	27.59	-158.93	-91.03	89.12	586.68	531.17	55.51	10.569	
7,900.00	7,863.11	7,867.17	7,863.11	28.29	27.95	-73.99	-91.03	89.12	586.52	530.30	56.22	10.433	
8,000.00	7,962.10	7,966.16	7,962.10	28.62	28.30	-75.56	-91.03	89.12	583.01	526.11	56.90	10.246	
8,100.00	8,057.30	8,061.36	8,057.30	28.94	28.64	-79.01	-91.03	89.12	576.04	518.48	57.56	10.007	
8,200.00	8,145.81	8,149.86	8,145.81	29.25	28.96	-83.83	-91.03	89.12	568.33	510.14	58.19	9.767	
8,300.00	8,224.93	8,228.99	8,224.93	29.53	29.24	-89.15	-91.03	89.12	563.83	505.06	58.76	9.595	
8,316.50	8,236.92	8,240.97	8,236.92	29.57	29.28	-90.00	-91.03	89.12	563.71	504.86	58.85	9.579	
8,400.00	8,292.28	8,296.33	8,292.28	29.79	29.48	-93.85	-91.03	89.12	567.16	507.89	59.27	9.569	
8,500.00	8,345.79	8,349.85	8,345.79	30.02	29.67	-96.83	-91.03	89.12	582.50	522.82	59.68	9.760	
8,600.00	8,383.84	8,387.90	8,383.84	30.24	29.81	-97.23	-91.03	89.12	612.31	552.34	59.97	10.210	
8,700.00	8,405.29	8,409.35	8,405.29	30.45	29.89	-94.40	-91.03	89.12	656.57	596.45	60.12	10.921	
8,800.00	8,409.66	8,413.72	8,409.66	30.63	29.90	-89.15	-91.03	89.12	712.87	652.73	60.13	11.855	
8,900.00	8,407.71	8,411.77	8,407.71	30.84	29.90	-89.02	-91.03	89.12	776.44	716.34	60.11	12.918	
9,000.00	8,405.76	8,409.82	8,405.76	31.10	29.89	-88.90	-91.03	89.12	844.67	784.60	60.08	14.060	
9,100.00	8,403.82	8,407.87	8,403.82	31.38	29.88	-88.74	-91.03	89.12	917.03	856.99	60.05	15.272	
9,200.00	8,401.87	8,405.93	8,401.87	31.71	29.88	-88.56	-91.03	89.12	994.10	934.08	60.02	16.562	
9,300.00	8,399.92	8,403.98	8,399.92	32.06	29.87	-88.37	-91.03	89.12	1,074.95	1,014.95	60.00	17.915	
9,400.00	8,397.98	8,402.03	8,397.98	32.46	29.86	-88.19	-91.03	89.12	1,158.79	1,098.81	59.99	19.318	
9,500.00	8,396.03	8,400.09	8,396.03	32.88	29.85	-88.01	-91.03	89.12	1,245.02	1,185.05	59.97	20.760	
9,600.00	8,394.08	8,398.14	8,394.08	33.34	29.85	-87.82	-91.03	89.12	1,333.17	1,273.21	59.96	22.234	
9,700.00	8,392.14	8,396.19	8,392.14	33.83	29.84	-87.64	-91.03	89.12	1,422.88	1,362.93	59.95	23.733	

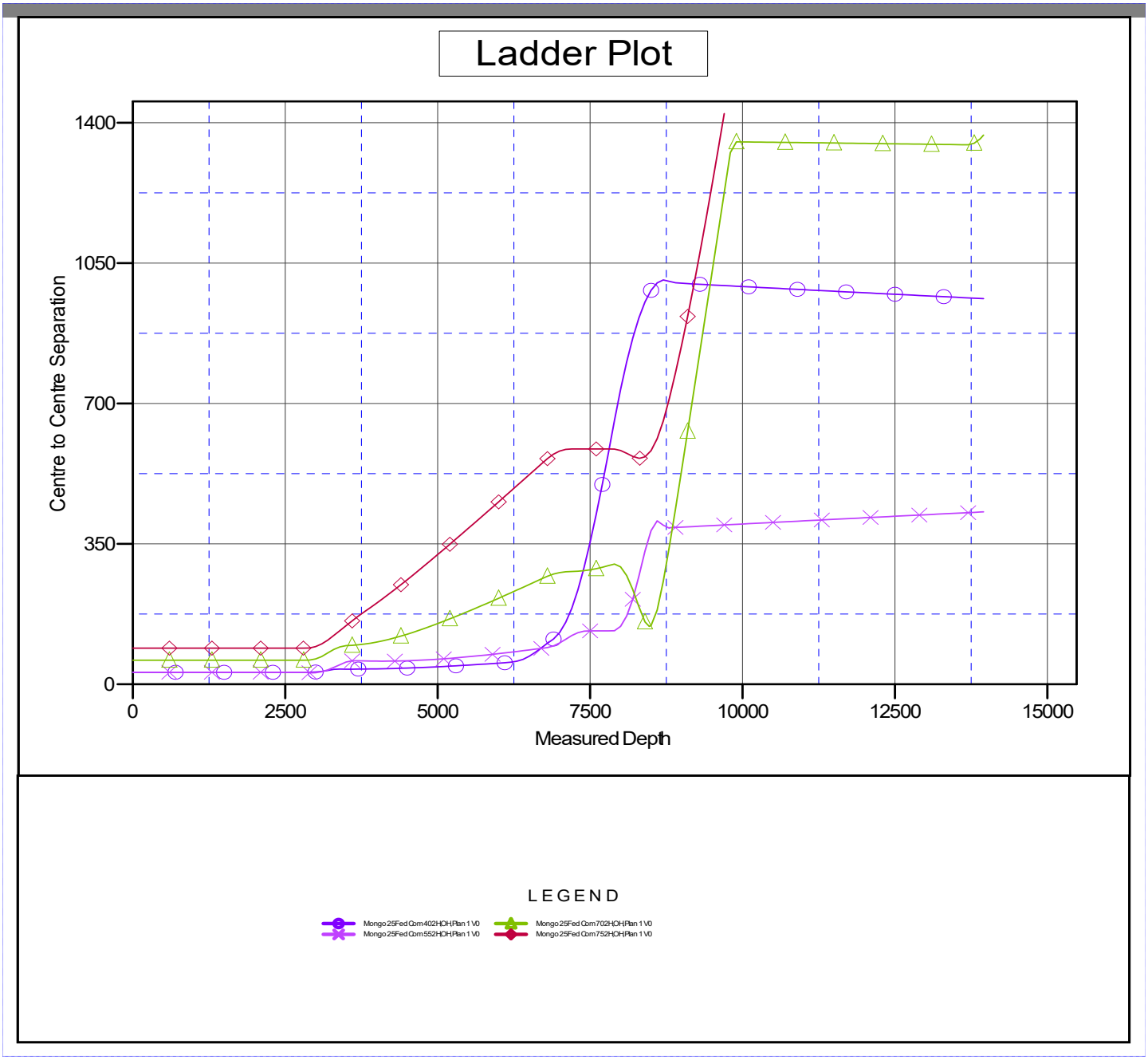
Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Mongo 25 Fed Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

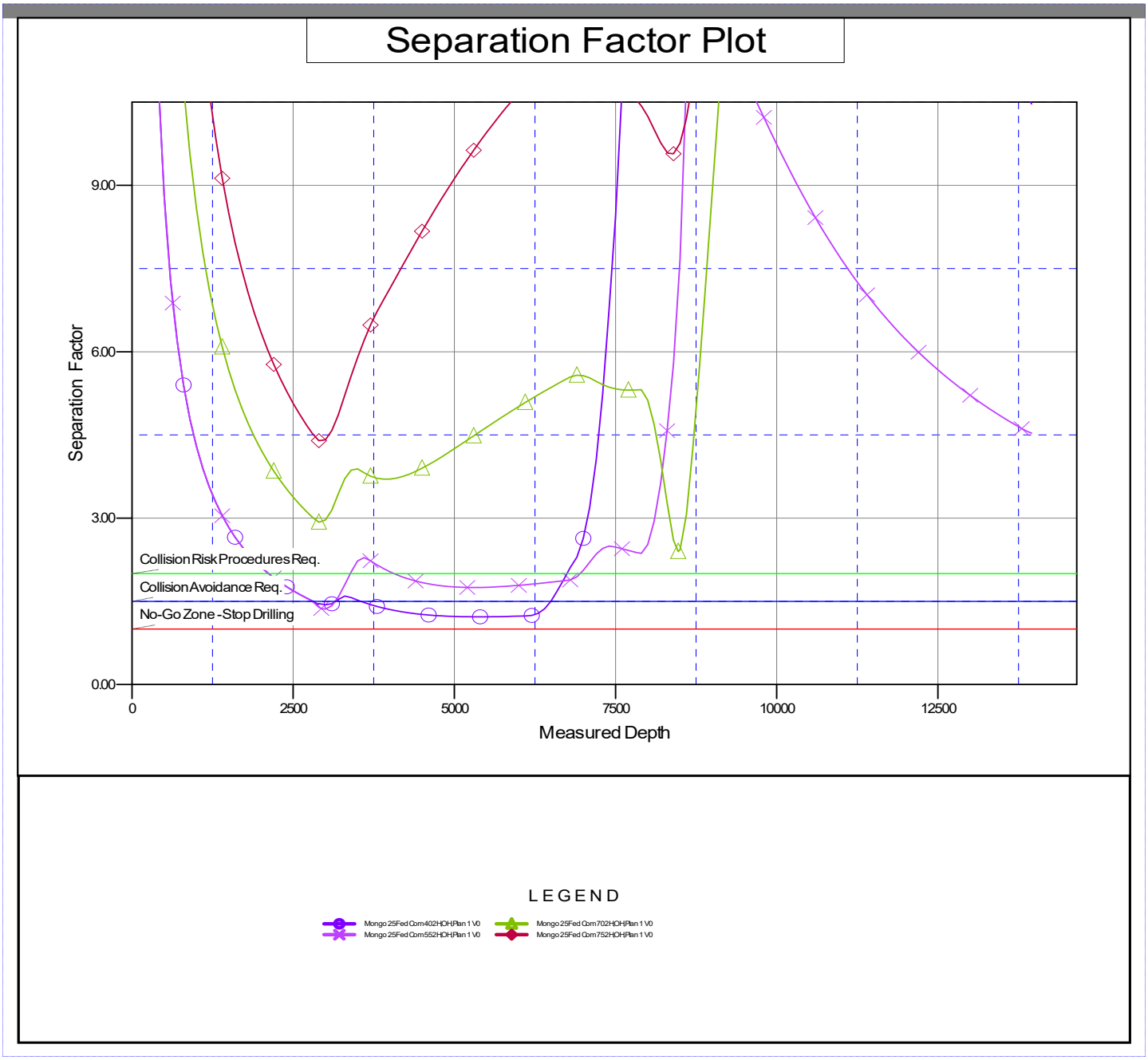


Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Mongo 25 Fed Com 502H
Project:	Eddy County, NM (NAD83)	**TVD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	**MD Reference:**	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Mongo 25 Fed Com 502H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM_WA
Reference Design:	Plan 1	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft	Coordinates are relative to: Mongo 25 Fed Com 502H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.333334	Grid Convergence at Surface is: 0.16°



Casing Program: **RRR-Mongo 25 Fed Com 502H - 13/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	BTC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800	32.20
Intermediate																			
12.25"	0'	2,650'	2,650'	9 5/8"	36	J-55	LTC	New	8.6	3520	2.97	2020	3.41	564,000	95,400	5.91	639,000	95,400	6.70
Production																			
8.75"	0'	13,954'	8,310'	5 1/2"	20	P-110	BTC	New	9.6	12640	3.05	11080	2.67	667,000	166,200	4.01	641,000	166,200	3.86

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6	ppg

Intermediate

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6	ppg
Collapse	A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	8.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6	ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.6	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.6	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.6	ppg

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 478679

CONDITIONS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 478679
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	6/27/2025