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

Sundry Print Report

07/17/2025

Well Name: SIOUX 25-36 STATE FED COM

Well Location: T25S / R35E / SEC 25 / NENW / 32.1079026 / -103.3241615

County or Parish/State: LEA / NM

Well Number: 15H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM114998

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002551570

Operator: 3R OPERATING LLC

Notice of Intent

Sundry ID: 2856708

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 06/09/2025

Time Sundry Submitted: 08:47

Date proposed operation will begin: 08/01/2025

Procedure Description: SUNDRY TO REVISE: WELL NAME, SHL, , BHL, CASING/DRILLING PLAN , BOP DESIGN Well Name - Change well name from Sioux 25-36 State Fed Com 15H (API 30-025-51570, APD ID 10400066297) to Sioux 25-36 State Fed Com 551H SHL Change: From 260" FNL & 1740" FWL to 179' FNL & 1660 FWL' BHL Change: From 20' FSL & 790' FWL to 100' FSL & 660' FWL Updated BOP Design (details in attachment) Casing changes (details in attached drilling plan) Casing cement changes (details in attached drilling plan) Updated NGMP

NOI Attachments

Procedure Description

Sioux_25_36_Fed_Com_551H_APD_Sundry_Packet_Final_07.14.25_v.2_20250716160941.pdf

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Operator: 3R OPERATING LLC

Conditions of Approval

Additional

Sioux_25_26_State_Fed_Com_551H_20250717144759.pdf

Sioux_25_36_State_Fed_Com_551H_COA_20250717144748.pdf

Operator

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

Operator Electronic Signature: AUSTIN TRAMELL

Signed on: JUL 16, 2025 04:12 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: 07/17/2025

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: NENW / 260 FNL / 1740 FWL / TWSP: 25S / RANGE: 35E / SECTION: 25 / LAT: 32.1079026 / LONG: -103.3241615 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 100 FNL / 790 FWL / TWSP: 25S / RANGE: 35E / SECTION: 25 / LAT: 32.1083382 / LONG: -103.3272293 (TVD: 10000 feet, MD: 10396 feet)

PPP: NWNW / 0 FNL / 790 FWL / TWSP: 25S / RANGE: 35E / SECTION: 36 / LAT: 32.094114 / LONG: -103.327232 (TVD: 10027 feet, MD: 15082 feet)

BHL: SESE / 20 FSL / 790 FWL / TWSP: 25S / RANGE: 35E / SECTION: 36 / LAT: 32.0796272 / LONG: -103.3272357 (TVD: 10058 feet, MD: 20353 feet)

SIOUX 25-36 STATE FED COM #551H

13 3/8	surface csg in a	17 1/2	inch hole.		Design Factors		Surface	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	54.50	J 55	STC	8.57	2.15	1.25	1,100	59,950
"B"			STC				0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,431			Tail Cmt	does not	circ to sfc.	Totals:	1,100	59,950

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	988	1528	764	100	9.20	1111	2M	1.56

Sfc plat (pipe racks S or E) as per O.O.1.III.D.4.i. not found

9 5/8	casing inside the	13 3/8			Design Factors		Int 1	
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	Weight
"A"	40.00	J 55	BTC	3.21	1.17	0.68	4,900	196,000
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	4,900	196,000
The cement volume(s) are intended to achieve a top of				0	ft from surface or a		1100	overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1579	2377	1589	50	8.60	3238	5M	0.81

Class 'H' tail cmt yld > 1.20

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.81, b, c, d All > 0.70, OK

5 1/2	casing inside the	9 5/8			Design Factors		Prod 1	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	23.00	P 110	Talon HTQ	3.01	2.84	2.85	21,639	497,697
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,556						Totals:	21,639	497,697
The cement volume(s) are intended to achieve a top of				4700	ft from surface or a		200	overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	2974	6135	4280	43	9.60			1.43

Class 'C' tail cmt yld > 1.35

#N/A

0		5 1/2			Design Factors		<Choose Casing>	
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	Weight
"A"			0.00				0	0
"B"			0.00				0	0
w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	0	0
Cmt vol calc below includes this csg, TOC intended				#N/A	ft from surface or a		#N/A	overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
0		#N/A	#N/A	0	#N/A				

#N/A Capitan Reef est top XXXX.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**3R OPERATING, LLC**
WELL NAME & NO.:	**SIOUX 25-36 STATE FEDERAL COM #551H**
LOCATION:	**25-25S-35E (179 FNL, 1660 FWL)**
COUNTY:	Lea County, New Mexico

*Previously known as **Sioux 25-36 State Fed Com #15H**. Changes approved through engineering via **Sundry 2856708** on **July 15, 2025**. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No		○ Yes	
Potash / WIPP	◉ None	○ Secretary	○ R-111-Q	☐ Open Annulus ☐ WIPP
	Choose an option (including blank option.)			
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☑ COM	☐ Unit
Waste Prev.	○ Self-Certification	◉ Waste Min. Plan	○ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Break Testing
	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8 inch** surface casing shall be set at approximately **1,100 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8 inch** intermediate casing and shall be set at approximately **4,900 feet** is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

3. The minimum required fill of cement behind the **5-1/2 inch** production casing and shall be set at approximately **21,639 feet** is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

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

2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

Contact Lea County Petroleum Engineering Inspection Staff:
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hard band drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive

strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

YJ (07/15/2025)

C-102

Submit Electronically
Via OCD Permitting

State of New Mexico
Energy, Minerals, & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024
PAGE 1 OF 2

Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-51570	97088	WC-025 G-08 S2535340; BONE SPRING

Property Code	Property Name	Well Number
317657	SIOUX 25-36 STATE FED COM	551H

OGRID No.	Operator Name	Ground Level Elevation
331569	3R OPERATING LLC	3086'

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 (NAD83)	Longitude (NAD83)	County
C	25	25S	35E		179' FNL	1660' FWL	32.10812486	-103.32441946	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
M	36	25S	35E		100' FSL	660' FWL	32.07984735	-103.32765484	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320.00	Defining Well		Y	C

Order Numbers: pending
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 (NAD83)	Longitude (NAD83)	County
D	25	25S	35E		50' FNL	660' FWL	32.10847514	-103.32764974	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
D	25	25S	35E		100' FNL	660' FWL	32.10833771	-103.32764964	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
M	36	25S	35E		100' FSL	660' FWL	32.07984735	-103.32765484	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type:	Ground Floor Elevation
AUI	☒ Horizontal ☐ Vertical	3086'

OPERATOR CERTIFICATIONS

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

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

Austin Tramell — 06/09/2025
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

Certificate Number	Date of Survey
21653	JUNE 06, 2025

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

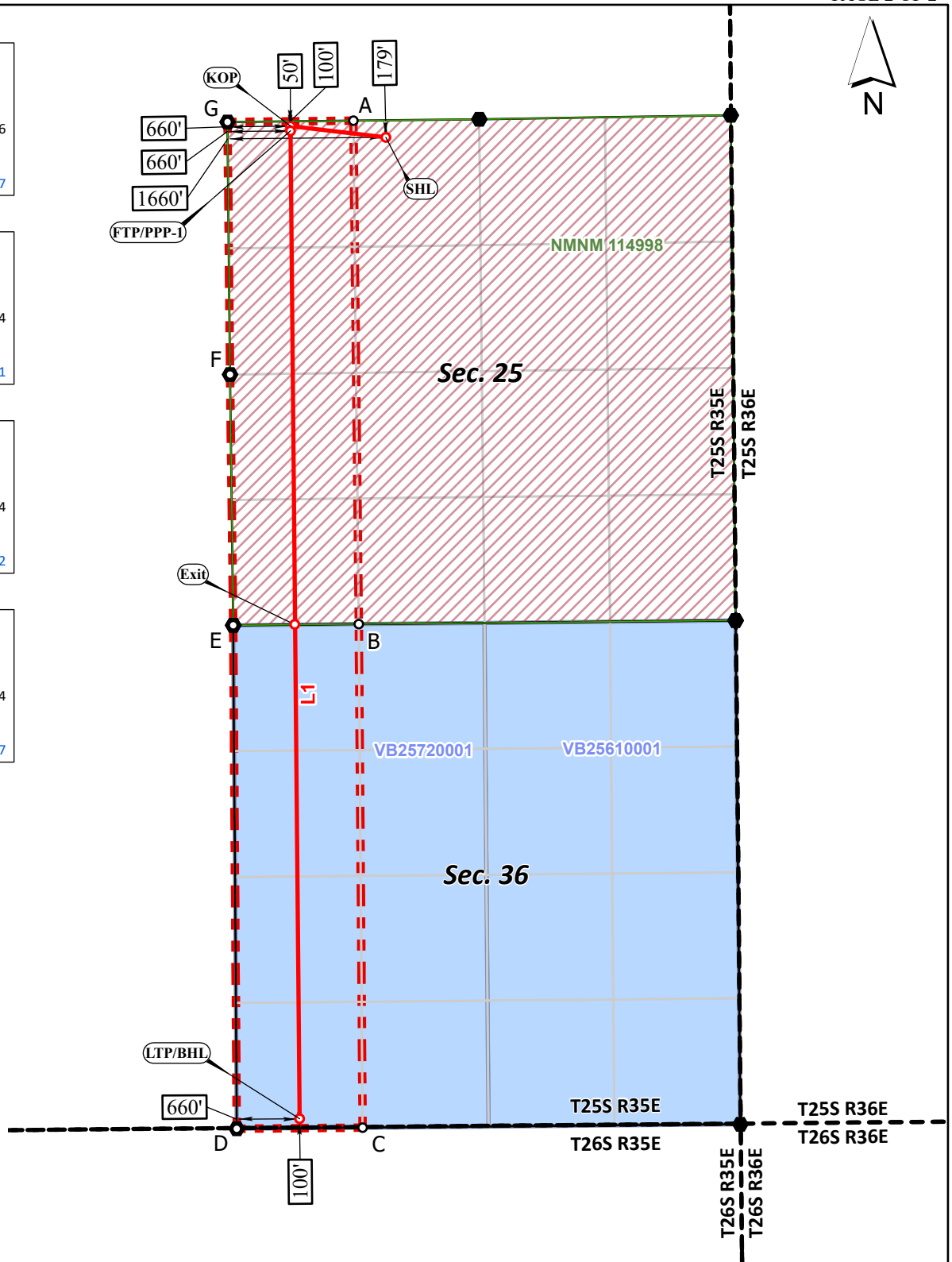
SIOUX 25-36 STATE FED COM 551H

SHL
FNL 179' FWL 1660', SECTION 25
NAD 83, SPCS NM EAST
X:853728.26' / Y:404534.23'
LAT:32.10812486 / LON:-103.32441946
NAD 27, SPCS NM EAST
X:812540.99' / Y:404476.02'
LAT:32.10799799 / LON:-103.32395727

KOP
FNL 50' FWL 660', SECTION 25
NAD 83, SPCS NM EAST
X:852726.83' / Y:404652.32'
LAT:32.10847514 / LON:-103.32764974
NAD 27, SPCS NM EAST
X:811539.59' / Y:404594.10'
LAT:32.10834830 / LON:-103.32718741

FTP/PPP-1
FNL 100' FWL 660', SECTION 25
NAD 83, SPCS NM EAST
X:852727.33' / Y:404602.32'
LAT:32.10833771 / LON:-103.32764964
NAD 27, SPCS NM EAST
X:811540.08' / Y:404544.11'
LAT:32.10821087 / LON:-103.32718732

LTP/BHL
FSL 100' FWL 660', SECTION 36
NAD 83, SPCS NM EAST
X:852822.39' / Y:394237.57'
LAT:32.07984735 / LON:-103.32765484
NAD 27, SPCS NM EAST
X:811634.73' / Y:394179.64'
LAT:32.07972038 / LON:-103.32719397



*FTP TO LTP LINE BEARINGS

LINE	BEARING
L1	S 00°31'32" E ~ 10365.19'

*FTP TO LTP LEASE DISTANCES

TRACT	DISTANCE
NMNM 114998	5181.59'
TOTAL	5181.59'

CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 853387.56' / Y:404709.54'	A - X: 812200.31' / Y:404651.32'
B - X: 853444.12' / Y:399427.25'	B - X: 812256.66' / Y:399369.17'
C - X: 853484.39' / Y:394143.43'	C - X: 812296.71' / Y:394085.49'
D - X: 852163.12' / Y:394131.73'	D - X: 810975.46' / Y:394073.81'
E - X: 852126.01' / Y:399414.84'	E - X: 810938.57' / Y:399356.77'
F - X: 852092.71' / Y:402045.65'	F - X: 810905.37' / Y:401987.51'
G - X: 852066.38' / Y:404695.10'	G - X: 810879.14' / Y:404636.89'

DELTA FIELD SERVICES

Drill Line Events | Section Corners | Drill Line | Dimension Lines | Federal Leases | NMSLO | HSU | HSU Corners

JOB No. 20251134
REV 1 ANC 5/12/2025

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

Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.99987673 and a Convergence Angle: 0.53882500°

3R Operating, LLC

Company: 3R Operating, LLC
Field: Lea County, NM (NAD 83)
Location: Sioux 25-36 State Fed Com Pad
Well: Sioux 25-36 State Fed Com 551H OH
Plan: Plan 1
GL 3086 + Est 25' KB @ 3128.00usft

RIG: TBD

Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.44°

Magnetic Field
Strength: 47058.3nT
Dip Angle: 59.70°
Date: 3/24/2025
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 5.44°

LEGACY DIRECTIONAL

WELL DETAILS: Sioux 25-36 State Fed Com 551H

GL 3086 + Est 25' KB @ 3128.00usft 3103.00

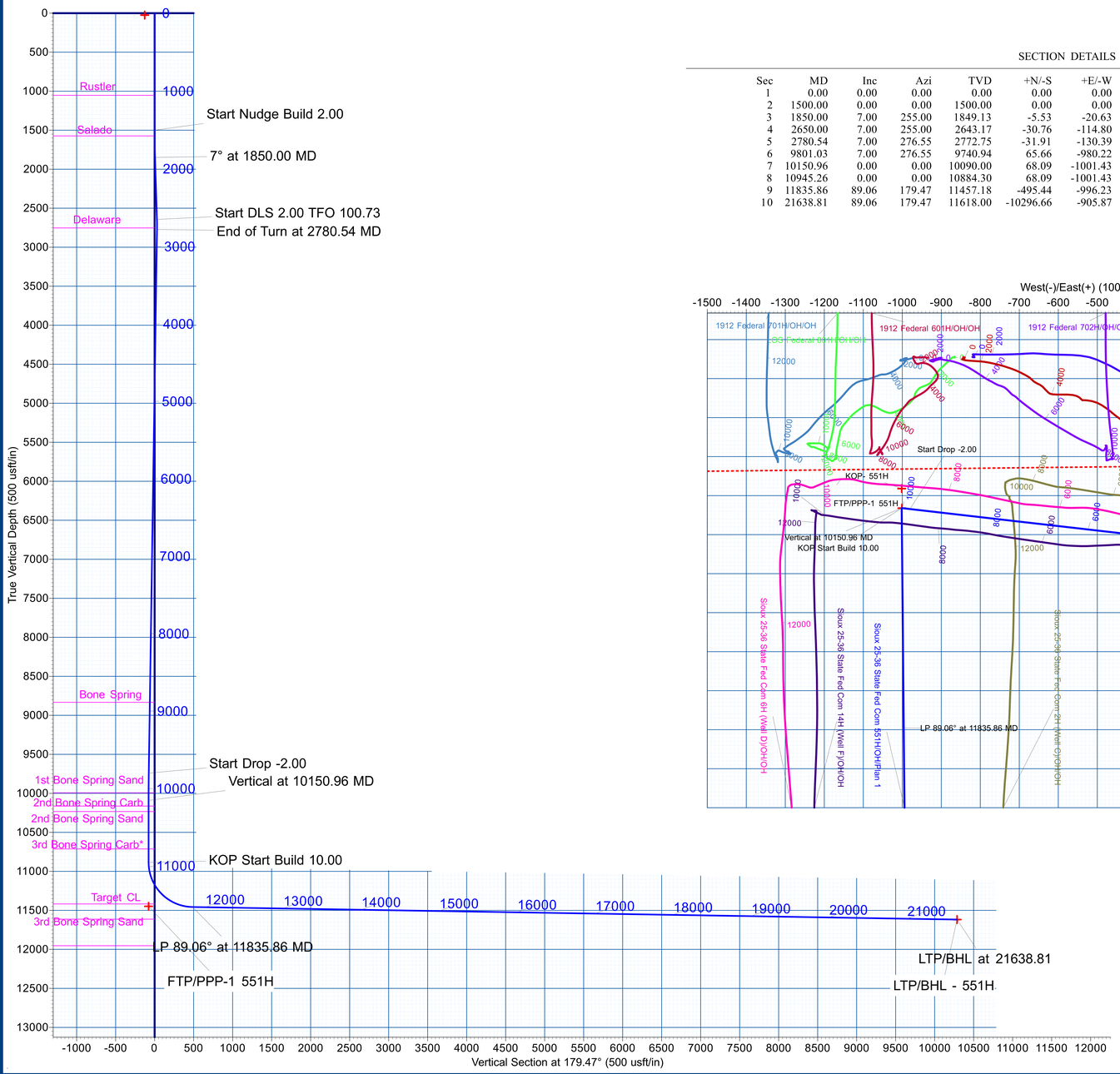
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	404534.23	853728.26	32.108125	-103.324419	551H

PROJECT DETAILS: Lea County, NM (NAD 83)

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

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	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	
3	1850.00	7.00	255.00	1849.13	-5.53	-20.63	2.00	255.00	5.34	
4	2650.00	7.00	255.00	2643.17	-30.76	-114.80	0.00	0.00	29.70	
5	2780.54	7.00	276.55	2772.75	-31.91	-130.39	2.00	100.73	30.70	
6	9801.03	7.00	276.55	9740.94	65.66	-980.22	0.00	0.00	-74.72	
7	10150.96	0.00	0.00	10090.00	68.09	-1001.43	2.00	180.00	-77.35	
8	10945.26	0.00	0.00	10884.30	68.09	-1001.43	0.00	0.00	-77.35	
9	11835.86	89.06	179.47	11457.18	-495.44	-996.23	10.00	179.47	486.21	
10	21638.81	89.06	179.47	11618.00	-10296.66	-905.87	0.00	0.00	10287.84	LTP/BHL - 551H



Plan: Plan 1 (Sioux 25-36 State Fed Com 551H/OH)
Created By: Jenise Kirkpatrick Date: 15:08, May 27 2025

3R Operating, LLC

Lea County, NM (NAD 83)
Sioux 25-36 State Fed Com Pad
Sioux 25-36 State Fed Com 551H - Slot 551H

OH

Plan: Plan 1

Standard Planning Report

27 May, 2025

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project Lea County, NM (NAD 83)

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

Site Sioux 25-36 State Fed Com Pad

Site Position:		**Northing:**	404,514.28 usft	**Latitude:**	32.108068
From:	Map	**Easting:**	853,818.27 usft	**Longitude:**	-103.324130
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Sioux 25-36 State Fed Com 551H - Slot 551H

Well Position	**+N/-S**	0.00 usft	**Northing:**	404,534.23 usft	**Latitude:**	32.108125
	+E/-W	0.00 usft	**Easting:**	853,728.26 usft	**Longitude:**	-103.324420
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,103.00 usft
Grid Convergence:		0.54 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/24/2025	5.98	59.70	47,058.27336985

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	179.47

Plan Survey Tool Program **Date** 5/27/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,638.74	Plan 1 (OH)	MWD	
				OWSG MWD - Standard	

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,850.00	7.00	255.00	1,849.13	-5.53	-20.63	2.00	2.00	0.00	255.00	
2,650.00	7.00	255.00	2,643.17	-30.76	-114.80	0.00	0.00	0.00	0.00	
2,780.54	7.00	276.55	2,772.75	-31.91	-130.39	2.00	0.00	16.51	100.73	
9,801.03	7.00	276.55	9,740.94	65.66	-980.22	0.00	0.00	0.00	0.00	
10,150.96	0.00	0.00	10,090.00	68.09	-1,001.43	2.00	-2.00	0.00	180.00	
10,945.26	0.00	0.00	10,884.30	68.09	-1,001.43	0.00	0.00	0.00	0.00	
11,835.86	89.06	179.47	11,457.18	-495.44	-996.23	10.00	10.00	0.00	179.47	
21,638.81	89.06	179.47	11,618.00	-10,296.66	-905.87	0.00	0.00	0.00	0.00	LTP/BHL - 551H

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,053.00	0.00	0.00	1,053.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Nudge Build 2.00									
1,573.01	1.46	255.00	1,573.00	-0.24	-0.90	0.23	2.00	2.00	0.00
Salado									
1,600.00	2.00	255.00	1,599.98	-0.45	-1.69	0.44	2.00	2.00	0.00
1,700.00	4.00	255.00	1,699.84	-1.81	-6.74	1.74	2.00	2.00	0.00
1,800.00	6.00	255.00	1,799.45	-4.06	-15.16	3.92	2.00	2.00	0.00
1,850.00	7.00	255.00	1,849.13	-5.53	-20.63	5.34	2.00	2.00	0.00
7° at 1850.00 MD									
1,900.00	7.00	255.00	1,898.76	-7.10	-26.51	6.86	0.00	0.00	0.00
2,000.00	7.00	255.00	1,998.01	-10.26	-38.28	9.90	0.00	0.00	0.00
2,100.00	7.00	255.00	2,097.27	-13.41	-50.06	12.95	0.00	0.00	0.00
2,200.00	7.00	255.00	2,196.52	-16.57	-61.83	15.99	0.00	0.00	0.00
2,300.00	7.00	255.00	2,295.78	-19.72	-73.60	19.04	0.00	0.00	0.00
2,400.00	7.00	255.00	2,395.03	-22.87	-85.37	22.08	0.00	0.00	0.00
2,500.00	7.00	255.00	2,494.29	-26.03	-97.14	25.13	0.00	0.00	0.00
2,600.00	7.00	255.00	2,593.54	-29.18	-108.91	28.17	0.00	0.00	0.00
2,650.00	7.00	255.00	2,643.17	-30.76	-114.80	29.70	0.00	0.00	0.00
Start DLS 2.00 TFO 100.73									
2,700.00	6.88	263.23	2,692.80	-31.90	-120.72	30.78	2.00	-0.23	16.45
2,760.64	6.94	273.31	2,753.00	-32.12	-127.98	30.93	2.00	0.09	16.63
Delaware									
2,780.54	7.00	276.55	2,772.75	-31.91	-130.39	30.70	2.00	0.32	16.28
End of Turn at 2780.54 MD									
2,800.00	7.00	276.55	2,792.07	-31.64	-132.74	30.41	0.00	0.00	0.00
2,900.00	7.00	276.55	2,891.33	-30.25	-144.85	28.91	0.00	0.00	0.00
3,000.00	7.00	276.55	2,990.58	-28.86	-156.95	27.41	0.00	0.00	0.00
3,100.00	7.00	276.55	3,089.84	-27.47	-169.06	25.91	0.00	0.00	0.00
3,200.00	7.00	276.55	3,189.09	-26.08	-181.16	24.41	0.00	0.00	0.00
3,300.00	7.00	276.55	3,288.35	-24.69	-193.27	22.90	0.00	0.00	0.00
3,400.00	7.00	276.55	3,387.60	-23.30	-205.37	21.40	0.00	0.00	0.00
3,500.00	7.00	276.55	3,486.86	-21.91	-217.48	19.90	0.00	0.00	0.00
3,600.00	7.00	276.55	3,586.11	-20.52	-229.58	18.40	0.00	0.00	0.00
3,700.00	7.00	276.55	3,685.37	-19.13	-241.69	16.90	0.00	0.00	0.00
3,800.00	7.00	276.55	3,784.62	-17.74	-253.79	15.40	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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	7.00	276.55	3,883.88	-16.35	-265.90	13.89	0.00	0.00	0.00
4,000.00	7.00	276.55	3,983.13	-14.96	-278.00	12.39	0.00	0.00	0.00
4,100.00	7.00	276.55	4,082.39	-13.57	-290.11	10.89	0.00	0.00	0.00
4,200.00	7.00	276.55	4,181.64	-12.19	-302.21	9.39	0.00	0.00	0.00
4,300.00	7.00	276.55	4,280.90	-10.80	-314.32	7.89	0.00	0.00	0.00
4,400.00	7.00	276.55	4,380.15	-9.41	-326.42	6.39	0.00	0.00	0.00
4,500.00	7.00	276.55	4,479.40	-8.02	-338.53	4.88	0.00	0.00	0.00
4,600.00	7.00	276.55	4,578.66	-6.63	-350.63	3.38	0.00	0.00	0.00
4,700.00	7.00	276.55	4,677.91	-5.24	-362.74	1.88	0.00	0.00	0.00
4,800.00	7.00	276.55	4,777.17	-3.85	-374.84	0.38	0.00	0.00	0.00
4,900.00	7.00	276.55	4,876.42	-2.46	-386.95	-1.12	0.00	0.00	0.00
5,000.00	7.00	276.55	4,975.68	-1.07	-399.05	-2.62	0.00	0.00	0.00
5,100.00	7.00	276.55	5,074.93	0.32	-411.16	-4.13	0.00	0.00	0.00
5,200.00	7.00	276.55	5,174.19	1.71	-423.26	-5.63	0.00	0.00	0.00
5,300.00	7.00	276.55	5,273.44	3.10	-435.37	-7.13	0.00	0.00	0.00
5,400.00	7.00	276.55	5,372.70	4.49	-447.47	-8.63	0.00	0.00	0.00
5,500.00	7.00	276.55	5,471.95	5.88	-459.58	-10.13	0.00	0.00	0.00
5,600.00	7.00	276.55	5,571.21	7.27	-471.68	-11.63	0.00	0.00	0.00
5,700.00	7.00	276.55	5,670.46	8.66	-483.79	-13.14	0.00	0.00	0.00
5,800.00	7.00	276.55	5,769.72	10.05	-495.90	-14.64	0.00	0.00	0.00
5,900.00	7.00	276.55	5,868.97	11.44	-508.00	-16.14	0.00	0.00	0.00
6,000.00	7.00	276.55	5,968.23	12.83	-520.11	-17.64	0.00	0.00	0.00
6,100.00	7.00	276.55	6,067.48	14.22	-532.21	-19.14	0.00	0.00	0.00
6,200.00	7.00	276.55	6,166.74	15.61	-544.32	-20.64	0.00	0.00	0.00
6,300.00	7.00	276.55	6,265.99	17.00	-556.42	-22.15	0.00	0.00	0.00
6,400.00	7.00	276.55	6,365.25	18.39	-568.53	-23.65	0.00	0.00	0.00
6,500.00	7.00	276.55	6,464.50	19.78	-580.63	-25.15	0.00	0.00	0.00
6,600.00	7.00	276.55	6,563.76	21.17	-592.74	-26.65	0.00	0.00	0.00
6,700.00	7.00	276.55	6,663.01	22.56	-604.84	-28.15	0.00	0.00	0.00
6,800.00	7.00	276.55	6,762.27	23.95	-616.95	-29.65	0.00	0.00	0.00
6,900.00	7.00	276.55	6,861.52	25.34	-629.05	-31.16	0.00	0.00	0.00
7,000.00	7.00	276.55	6,960.78	26.73	-641.16	-32.66	0.00	0.00	0.00
7,100.00	7.00	276.55	7,060.03	28.12	-653.26	-34.16	0.00	0.00	0.00
7,200.00	7.00	276.55	7,159.29	29.51	-665.37	-35.66	0.00	0.00	0.00
7,300.00	7.00	276.55	7,258.54	30.90	-677.47	-37.16	0.00	0.00	0.00
7,400.00	7.00	276.55	7,357.80	32.29	-689.58	-38.66	0.00	0.00	0.00
7,500.00	7.00	276.55	7,457.05	33.68	-701.68	-40.17	0.00	0.00	0.00
7,600.00	7.00	276.55	7,556.31	35.07	-713.79	-41.67	0.00	0.00	0.00
7,700.00	7.00	276.55	7,655.56	36.46	-725.89	-43.17	0.00	0.00	0.00
7,800.00	7.00	276.55	7,754.82	37.85	-738.00	-44.67	0.00	0.00	0.00
7,900.00	7.00	276.55	7,854.07	39.24	-750.10	-46.17	0.00	0.00	0.00
8,000.00	7.00	276.55	7,953.33	40.63	-762.21	-47.67	0.00	0.00	0.00
8,100.00	7.00	276.55	8,052.58	42.02	-774.31	-49.18	0.00	0.00	0.00
8,200.00	7.00	276.55	8,151.84	43.40	-786.42	-50.68	0.00	0.00	0.00
8,300.00	7.00	276.55	8,251.09	44.79	-798.52	-52.18	0.00	0.00	0.00
8,400.00	7.00	276.55	8,350.35	46.18	-810.63	-53.68	0.00	0.00	0.00
8,500.00	7.00	276.55	8,449.60	47.57	-822.73	-55.18	0.00	0.00	0.00
8,600.00	7.00	276.55	8,548.86	48.96	-834.84	-56.68	0.00	0.00	0.00
8,700.00	7.00	276.55	8,648.11	50.35	-846.94	-58.19	0.00	0.00	0.00
8,800.00	7.00	276.55	8,747.37	51.74	-859.05	-59.69	0.00	0.00	0.00
8,886.28	7.00	276.55	8,833.00	52.94	-869.49	-60.98	0.00	0.00	0.00
Bone Spring									
8,900.00	7.00	276.55	8,846.62	53.13	-871.15	-61.19	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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)
9,000.00	7.00	276.55	8,945.88	54.52	-883.26	-62.69	0.00	0.00	0.00
9,100.00	7.00	276.55	9,045.13	55.91	-895.36	-64.19	0.00	0.00	0.00
9,200.00	7.00	276.55	9,144.39	57.30	-907.47	-65.69	0.00	0.00	0.00
9,300.00	7.00	276.55	9,243.64	58.69	-919.57	-67.20	0.00	0.00	0.00
9,400.00	7.00	276.55	9,342.90	60.08	-931.68	-68.70	0.00	0.00	0.00
9,500.00	7.00	276.55	9,442.15	61.47	-943.78	-70.20	0.00	0.00	0.00
9,600.00	7.00	276.55	9,541.40	62.86	-955.89	-71.70	0.00	0.00	0.00
9,700.00	7.00	276.55	9,640.66	64.25	-967.99	-73.20	0.00	0.00	0.00
9,801.03	7.00	276.55	9,740.94	65.66	-980.22	-74.72	0.00	0.00	0.00
Start Drop -2.00									
9,900.00	5.02	276.55	9,839.36	66.84	-990.52	-76.00	2.00	-2.00	0.00
10,000.00	3.02	276.55	9,939.11	67.64	-997.48	-76.86	2.00	-2.00	0.00
10,053.94	1.94	276.55	9,993.00	67.90	-999.80	-77.15	2.00	-2.00	0.00
1st Bone Spring Sand									
10,100.00	1.02	276.55	10,039.04	68.04	-1,000.98	-77.29	2.00	-2.00	0.00
10,150.96	0.00	0.00	10,090.00	68.09	-1,001.43	-77.35	2.00	-2.00	0.00
Vertical at 10150.96 MD									
10,200.00	0.00	0.00	10,139.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,223.96	0.00	0.00	10,163.00	68.09	-1,001.43	-77.35	0.00	0.00	0.00
2nd Bone Spring Carb									
10,293.96	0.00	0.00	10,233.00	68.09	-1,001.43	-77.35	0.00	0.00	0.00
2nd Bone Spring Sand									
10,300.00	0.00	0.00	10,239.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,400.00	0.00	0.00	10,339.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,500.00	0.00	0.00	10,439.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,600.00	0.00	0.00	10,539.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,700.00	0.00	0.00	10,639.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,773.96	0.00	0.00	10,713.00	68.09	-1,001.43	-77.35	0.00	0.00	0.00
3rd Bone Spring Carb*									
10,800.00	0.00	0.00	10,739.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,900.00	0.00	0.00	10,839.04	68.09	-1,001.43	-77.35	0.00	0.00	0.00
10,945.26	0.00	0.00	10,884.30	68.09	-1,001.43	-77.35	0.00	0.00	0.00
KOP Start Build 10.00									
10,950.00	0.47	179.47	10,889.04	68.07	-1,001.43	-77.33	10.00	10.00	0.00
11,000.00	5.47	179.47	10,938.95	65.48	-1,001.41	-74.74	10.00	10.00	0.00
11,050.00	10.47	179.47	10,988.46	58.54	-1,001.34	-67.80	10.00	10.00	0.00
11,100.00	15.47	179.47	11,037.16	47.32	-1,001.24	-56.58	10.00	10.00	0.00
11,150.00	20.47	179.47	11,084.71	31.90	-1,001.10	-41.16	10.00	10.00	0.00
11,200.00	25.47	179.47	11,130.73	12.39	-1,000.92	-21.65	10.00	10.00	0.00
11,250.00	30.47	179.47	11,174.87	-11.05	-1,000.70	1.80	10.00	10.00	0.00
11,300.00	35.47	179.47	11,216.80	-38.26	-1,000.45	29.00	10.00	10.00	0.00
11,350.00	40.47	179.47	11,256.21	-69.01	-1,000.17	59.76	10.00	10.00	0.00
11,400.00	45.47	179.47	11,292.78	-103.08	-999.85	93.83	10.00	10.00	0.00
11,450.00	50.47	179.47	11,326.24	-140.21	-999.51	130.96	10.00	10.00	0.00
11,500.00	55.47	179.47	11,356.34	-180.12	-999.14	170.87	10.00	10.00	0.00
11,550.00	60.47	179.47	11,382.85	-222.49	-998.75	213.24	10.00	10.00	0.00
11,600.00	65.47	179.47	11,405.56	-267.01	-998.34	257.77	10.00	10.00	0.00
11,631.94	68.67	179.47	11,418.00	-296.42	-998.07	287.18	10.00	10.00	0.00
Target CL									
11,650.00	70.47	179.47	11,424.31	-313.35	-997.91	304.10	10.00	10.00	0.00
11,700.00	75.47	179.47	11,438.94	-361.14	-997.47	351.90	10.00	10.00	0.00
11,750.00	80.47	179.47	11,449.36	-410.02	-997.02	400.78	10.00	10.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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)
11,800.00	85.47	179.47	11,455.47	-459.63	-996.56	450.39	10.00	10.00	0.00
11,835.86	89.06	179.47	11,457.18	-495.44	-996.23	486.21	10.00	10.00	0.00
LP 89.06° at 11835.86 MD									
11,900.00	89.06	179.47	11,458.23	-559.57	-995.64	550.34	0.00	0.00	0.00
12,000.00	89.06	179.47	11,459.87	-659.55	-994.72	650.32	0.00	0.00	0.00
12,100.00	89.06	179.47	11,461.51	-759.54	-993.80	750.31	0.00	0.00	0.00
12,200.00	89.06	179.47	11,463.15	-859.52	-992.88	850.30	0.00	0.00	0.00
12,300.00	89.06	179.47	11,464.79	-959.50	-991.96	950.28	0.00	0.00	0.00
12,400.00	89.06	179.47	11,466.43	-1,059.48	-991.03	1,050.27	0.00	0.00	0.00
12,500.00	89.06	179.47	11,468.07	-1,159.47	-990.11	1,150.26	0.00	0.00	0.00
12,600.00	89.06	179.47	11,469.72	-1,259.45	-989.19	1,250.24	0.00	0.00	0.00
12,700.00	89.06	179.47	11,471.36	-1,359.43	-988.27	1,350.23	0.00	0.00	0.00
12,800.00	89.06	179.47	11,473.00	-1,459.41	-987.35	1,450.22	0.00	0.00	0.00
12,900.00	89.06	179.47	11,474.64	-1,559.39	-986.43	1,550.20	0.00	0.00	0.00
13,000.00	89.06	179.47	11,476.28	-1,659.38	-985.50	1,650.19	0.00	0.00	0.00
13,100.00	89.06	179.47	11,477.92	-1,759.36	-984.58	1,750.18	0.00	0.00	0.00
13,200.00	89.06	179.47	11,479.56	-1,859.34	-983.66	1,850.16	0.00	0.00	0.00
13,300.00	89.06	179.47	11,481.20	-1,959.32	-982.74	1,950.15	0.00	0.00	0.00
13,400.00	89.06	179.47	11,482.84	-2,059.31	-981.82	2,050.14	0.00	0.00	0.00
13,500.00	89.06	179.47	11,484.48	-2,159.29	-980.89	2,150.12	0.00	0.00	0.00
13,600.00	89.06	179.47	11,486.12	-2,259.27	-979.97	2,250.11	0.00	0.00	0.00
13,700.00	89.06	179.47	11,487.76	-2,359.25	-979.05	2,350.10	0.00	0.00	0.00
13,800.00	89.06	179.47	11,489.40	-2,459.24	-978.13	2,450.08	0.00	0.00	0.00
13,900.00	89.06	179.47	11,491.04	-2,559.22	-977.21	2,550.07	0.00	0.00	0.00
14,000.00	89.06	179.47	11,492.68	-2,659.20	-976.29	2,650.06	0.00	0.00	0.00
14,100.00	89.06	179.47	11,494.32	-2,759.18	-975.36	2,750.04	0.00	0.00	0.00
14,200.00	89.06	179.47	11,495.96	-2,859.16	-974.44	2,850.03	0.00	0.00	0.00
14,300.00	89.06	179.47	11,497.60	-2,959.15	-973.52	2,950.02	0.00	0.00	0.00
14,400.00	89.06	179.47	11,499.24	-3,059.13	-972.60	3,050.00	0.00	0.00	0.00
14,500.00	89.06	179.47	11,500.89	-3,159.11	-971.68	3,149.99	0.00	0.00	0.00
14,600.00	89.06	179.47	11,502.53	-3,259.09	-970.75	3,249.97	0.00	0.00	0.00
14,700.00	89.06	179.47	11,504.17	-3,359.08	-969.83	3,349.96	0.00	0.00	0.00
14,800.00	89.06	179.47	11,505.81	-3,459.06	-968.91	3,449.95	0.00	0.00	0.00
14,900.00	89.06	179.47	11,507.45	-3,559.04	-967.99	3,549.93	0.00	0.00	0.00
15,000.00	89.06	179.47	11,509.09	-3,659.02	-967.07	3,649.92	0.00	0.00	0.00
15,100.00	89.06	179.47	11,510.73	-3,759.01	-966.15	3,749.91	0.00	0.00	0.00
15,200.00	89.06	179.47	11,512.37	-3,858.99	-965.22	3,849.89	0.00	0.00	0.00
15,300.00	89.06	179.47	11,514.01	-3,958.97	-964.30	3,949.88	0.00	0.00	0.00
15,400.00	89.06	179.47	11,515.65	-4,058.95	-963.38	4,049.87	0.00	0.00	0.00
15,500.00	89.06	179.47	11,517.29	-4,158.93	-962.46	4,149.85	0.00	0.00	0.00
15,600.00	89.06	179.47	11,518.93	-4,258.92	-961.54	4,249.84	0.00	0.00	0.00
15,700.00	89.06	179.47	11,520.57	-4,358.90	-960.61	4,349.83	0.00	0.00	0.00
15,800.00	89.06	179.47	11,522.21	-4,458.88	-959.69	4,449.81	0.00	0.00	0.00
15,900.00	89.06	179.47	11,523.85	-4,558.86	-958.77	4,549.80	0.00	0.00	0.00
16,000.00	89.06	179.47	11,525.49	-4,658.85	-957.85	4,649.79	0.00	0.00	0.00
16,100.00	89.06	179.47	11,527.13	-4,758.83	-956.93	4,749.77	0.00	0.00	0.00
16,200.00	89.06	179.47	11,528.77	-4,858.81	-956.01	4,849.76	0.00	0.00	0.00
16,300.00	89.06	179.47	11,530.42	-4,958.79	-955.08	4,949.75	0.00	0.00	0.00
16,400.00	89.06	179.47	11,532.06	-5,058.77	-954.16	5,049.73	0.00	0.00	0.00
16,500.00	89.06	179.47	11,533.70	-5,158.76	-953.24	5,149.72	0.00	0.00	0.00
16,600.00	89.06	179.47	11,535.34	-5,258.74	-952.32	5,249.71	0.00	0.00	0.00
16,700.00	89.06	179.47	11,536.98	-5,358.72	-951.40	5,349.69	0.00	0.00	0.00
16,800.00	89.06	179.47	11,538.62	-5,458.70	-950.47	5,449.68	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

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Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**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)
16,900.00	89.06	179.47	11,540.26	-5,558.69	-949.55	5,549.67	0.00	0.00	0.00
17,000.00	89.06	179.47	11,541.90	-5,658.67	-948.63	5,649.65	0.00	0.00	0.00
17,100.00	89.06	179.47	11,543.54	-5,758.65	-947.71	5,749.64	0.00	0.00	0.00
17,200.00	89.06	179.47	11,545.18	-5,858.63	-946.79	5,849.62	0.00	0.00	0.00
17,300.00	89.06	179.47	11,546.82	-5,958.62	-945.87	5,949.61	0.00	0.00	0.00
17,400.00	89.06	179.47	11,548.46	-6,058.60	-944.94	6,049.60	0.00	0.00	0.00
17,500.00	89.06	179.47	11,550.10	-6,158.58	-944.02	6,149.58	0.00	0.00	0.00
17,600.00	89.06	179.47	11,551.74	-6,258.56	-943.10	6,249.57	0.00	0.00	0.00
17,700.00	89.06	179.47	11,553.38	-6,358.54	-942.18	6,349.56	0.00	0.00	0.00
17,800.00	89.06	179.47	11,555.02	-6,458.53	-941.26	6,449.54	0.00	0.00	0.00
17,900.00	89.06	179.47	11,556.66	-6,558.51	-940.33	6,549.53	0.00	0.00	0.00
18,000.00	89.06	179.47	11,558.30	-6,658.49	-939.41	6,649.52	0.00	0.00	0.00
18,100.00	89.06	179.47	11,559.94	-6,758.47	-938.49	6,749.50	0.00	0.00	0.00
18,200.00	89.06	179.47	11,561.59	-6,858.46	-937.57	6,849.49	0.00	0.00	0.00
18,300.00	89.06	179.47	11,563.23	-6,958.44	-936.65	6,949.48	0.00	0.00	0.00
18,400.00	89.06	179.47	11,564.87	-7,058.42	-935.73	7,049.46	0.00	0.00	0.00
18,500.00	89.06	179.47	11,566.51	-7,158.40	-934.80	7,149.45	0.00	0.00	0.00
18,600.00	89.06	179.47	11,568.15	-7,258.39	-933.88	7,249.44	0.00	0.00	0.00
18,700.00	89.06	179.47	11,569.79	-7,358.37	-932.96	7,349.42	0.00	0.00	0.00
18,800.00	89.06	179.47	11,571.43	-7,458.35	-932.04	7,449.41	0.00	0.00	0.00
18,900.00	89.06	179.47	11,573.07	-7,558.33	-931.12	7,549.40	0.00	0.00	0.00
19,000.00	89.06	179.47	11,574.71	-7,658.31	-930.19	7,649.38	0.00	0.00	0.00
19,100.00	89.06	179.47	11,576.35	-7,758.30	-929.27	7,749.37	0.00	0.00	0.00
19,200.00	89.06	179.47	11,577.99	-7,858.28	-928.35	7,849.36	0.00	0.00	0.00
19,300.00	89.06	179.47	11,579.63	-7,958.26	-927.43	7,949.34	0.00	0.00	0.00
19,400.00	89.06	179.47	11,581.27	-8,058.24	-926.51	8,049.33	0.00	0.00	0.00
19,500.00	89.06	179.47	11,582.91	-8,158.23	-925.59	8,149.32	0.00	0.00	0.00
19,600.00	89.06	179.47	11,584.55	-8,258.21	-924.66	8,249.30	0.00	0.00	0.00
19,700.00	89.06	179.47	11,586.19	-8,358.19	-923.74	8,349.29	0.00	0.00	0.00
19,800.00	89.06	179.47	11,587.83	-8,458.17	-922.82	8,449.27	0.00	0.00	0.00
19,900.00	89.06	179.47	11,589.47	-8,558.16	-921.90	8,549.26	0.00	0.00	0.00
20,000.00	89.06	179.47	11,591.11	-8,658.14	-920.98	8,649.25	0.00	0.00	0.00
20,100.00	89.06	179.47	11,592.76	-8,758.12	-920.05	8,749.23	0.00	0.00	0.00
20,200.00	89.06	179.47	11,594.40	-8,858.10	-919.13	8,849.22	0.00	0.00	0.00
20,300.00	89.06	179.47	11,596.04	-8,958.08	-918.21	8,949.21	0.00	0.00	0.00
20,400.00	89.06	179.47	11,597.68	-9,058.07	-917.29	9,049.19	0.00	0.00	0.00
20,500.00	89.06	179.47	11,599.32	-9,158.05	-916.37	9,149.18	0.00	0.00	0.00
20,600.00	89.06	179.47	11,600.96	-9,258.03	-915.45	9,249.17	0.00	0.00	0.00
20,700.00	89.06	179.47	11,602.60	-9,358.01	-914.52	9,349.15	0.00	0.00	0.00
20,800.00	89.06	179.47	11,604.24	-9,458.00	-913.60	9,449.14	0.00	0.00	0.00
20,900.00	89.06	179.47	11,605.88	-9,557.98	-912.68	9,549.13	0.00	0.00	0.00
21,000.00	89.06	179.47	11,607.52	-9,657.96	-911.76	9,649.11	0.00	0.00	0.00
21,100.00	89.06	179.47	11,609.16	-9,757.94	-910.84	9,749.10	0.00	0.00	0.00
21,200.00	89.06	179.47	11,610.80	-9,857.93	-909.92	9,849.09	0.00	0.00	0.00
21,300.00	89.06	179.47	11,612.44	-9,957.91	-908.99	9,949.07	0.00	0.00	0.00
21,334.03	89.06	179.47	11,613.00	-9,991.94	-908.68	9,983.10	0.00	0.00	0.00
3rd Bone Spring Sand									
21,400.00	89.06	179.47	11,614.08	-10,057.89	-908.07	10,049.06	0.00	0.00	0.00
21,500.00	89.06	179.47	11,615.72	-10,157.87	-907.15	10,149.05	0.00	0.00	0.00
21,600.00	89.06	179.47	11,617.36	-10,257.85	-906.23	10,249.03	0.00	0.00	0.00
21,638.81	89.06	179.47	11,618.00	-10,296.66	-905.87	10,287.84	0.00	0.00	0.00
LTP/BHL at 21638.81									

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Company:	3R Operating, LLC	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site:	Sioux 25-36 State Fed Com Pad	**North Reference:**	Grid
Well:	Sioux 25-36 State Fed Com 551H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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- 551H	0.00	0.00	25.00	118.09	-1,001.43	404,652.32	852,726.83	32.108475	-103.327650
- plan misses target center by 1008.37usft at 25.00usft MD (25.00 TVD, 0.00 N, 0.00 E)									
- Point									
FTP/PPP-1 551H	0.00	0.00	11,448.00	68.09	-1,000.93	404,602.32	852,727.33	32.108338	-103.327650
- plan misses target center by 230.93usft at 11396.89usft MD (11290.59 TVD, -100.87 N, -999.87 E)									
- Point									
LTP/BHL - 551H	0.00	0.00	11,618.00	-10,296.66	-905.87	394,237.57	852,822.39	32.079847	-103.327655
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,053.00	1,053.00	Rustler			
1,573.01	1,573.00	Salado			
2,760.64	2,753.00	Delaware			
8,886.28	8,833.00	Bone Spring			
10,053.94	9,993.00	1st Bone Spring Sand			
10,223.96	10,163.00	2nd Bone Spring Carb			
10,293.96	10,233.00	2nd Bone Spring Sand			
10,773.96	10,713.00	3rd Bone Spring Carb*			
11,631.94	11,418.00	Target CL			
21,334.03	11,613.00	3rd Bone Spring Sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,500.00	1,500.00	0.00	0.00	Start Nudge Build 2.00
1,850.00	1,849.13	-5.53	-20.63	7° at 1850.00 MD
2,650.00	2,643.17	-30.76	-114.80	Start DLS 2.00 TFO 100.73
2,780.54	2,772.75	-31.91	-130.39	End of Turn at 2780.54 MD
9,801.03	9,740.94	65.66	-980.22	Start Drop -2.00
10,150.96	10,090.00	68.09	-1,001.43	Vertical at 10150.96 MD
10,945.26	10,884.30	68.09	-1,001.43	KOP Start Build 10.00
11,835.86	11,457.18	-495.44	-996.23	LP 89.06° at 11835.86 MD
21,638.81	11,618.00	-10,296.66	-905.87	LTP/BHL at 21638.81

3R Operating, LLC

Lea County, NM (NAD 83)
Sioux 25-36 State Fed Com Pad
Sioux 25-36 State Fed Com 551H

OH
Plan 1

Anticollision Report

27 May, 2025

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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 2,363.88usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 5/27/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	21,638.74	Plan 1 (OH)	MWD	OWSG MWD - Standard

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
Sioux 25-36 Offsets						
1912 Federal 601H - OH - OH	10,911.24	10,871.39	159.20	79.82	2.006	CC, ES, SF
1912 Federal 701H - OH - OH	11,000.00	10,983.31	342.69	264.04	4.357	CC, ES, SF
1912 Federal 702H - OH - OH	6,746.40	6,746.92	230.58	181.12	4.662	CC, ES
1912 Federal 702H - OH - OH	6,800.00	6,797.41	231.13	181.31	4.640	SF
LOE Fed Com 803H - OH - OH	4,389.89	4,413.05	421.62	389.80	13.250	CC
LOE Fed Com 803H - OH - OH	4,500.00	4,525.64	422.14	389.45	12.914	ES
LOE Fed Com 803H - OH - OH	5,000.00	5,003.40	444.32	408.00	12.233	SF
LOE Federal 802H - OH - OH	6,045.55	6,057.45	292.10	248.01	6.625	CC
LOE Federal 802H - OH - OH	6,100.00	6,110.87	292.32	247.85	6.573	ES
LOE Federal 802H - OH - OH	6,300.00	6,305.37	297.61	251.79	6.495	SF
LOS Federal 801H - OH - OH	9,982.40	9,941.25	270.30	198.45	3.762	CC
LOS Federal 801H - OH - OH	10,000.00	9,958.66	270.35	198.37	3.756	ES
LOS Federal 801H - OH - OH	11,000.00	10,982.93	282.20	203.63	3.592	SF
Trinity Federal 602H - OH - OH	6,534.45	6,688.99	784.87	736.76	16.311	CC, ES
Trinity Federal 602H - OH - OH	11,200.00	11,267.48	1,162.24	1,082.26	14.532	SF
Sioux 25-36 State Fed Com Pad						
Sioux 25-36 State Fed Com 14H (Well F) - OH - OH	2,899.30	2,879.44	35.27	14.14	1.669	Collision Risk Procedures Re
Sioux 25-36 State Fed Com 14H (Well F) - OH - OH	3,500.00	3,480.19	38.40	12.77	1.498	Collision Risk Procedures Re
Sioux 25-36 State Fed Com 14H (Well F) - OH - OH	3,600.00	3,579.80	39.18	12.80	1.485	Collision Risk Procedures Re
Sioux 25-36 State Fed Com 16H (Well H) - OH - OH	1,109.22	1,085.28	125.62	118.01	16.512	CC
Sioux 25-36 State Fed Com 16H (Well H) - OH - OH	1,300.00	1,275.21	126.20	117.24	14.097	ES
Sioux 25-36 State Fed Com 16H (Well H) - OH - OH	21,638.81	22,532.00	1,526.57	1,213.67	4.879	SF
Sioux 25-36 State Fed Com 2H (Well C) - OH - OH	1,843.31	1,829.11	74.35	61.73	5.893	CC, ES
Sioux 25-36 State Fed Com 2H (Well C) - OH - OH	7,400.00	7,383.33	121.88	66.24	2.191	SF
Sioux 25-36 State Fed Com 3H (Well B) - OH - OH	1,525.03	1,501.46	118.67	107.93	11.048	CC, ES
Sioux 25-36 State Fed Com 3H (Well B) - OH - OH	21,638.81	22,288.00	1,146.43	820.35	3.516	SF
Sioux 25-36 State Fed Com 4H (Well A) - OH - OH	1,314.95	1,291.98	146.00	136.89	16.018	CC, ES
Sioux 25-36 State Fed Com 4H (Well A) - OH - OH	21,638.81	22,371.23	1,674.31	1,340.70	5.019	SF
Sioux 25-36 State Fed Com 552H - OH - Plan 1	1,500.00	1,473.00	20.00	9.43	1.893	Collision Risk Procedures Re
Sioux 25-36 State Fed Com 6H (Well D) - OH - OH	2,013.09	1,994.33	16.70	2.86	1.206	Collision Risk Procedures Re
Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01	1,244.40	1,220.48	163.93	155.30	18.986	CC, ES
Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01	21,638.81	21,993.96	1,495.29	1,151.58	4.350	SF

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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

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
Sioux 36 State						
Sioux 36 State 1H - OH - OH	16,485.18	11,568.54	214.88	80.17	1.595	Collision Risk Procedures Re
Sioux 36 State 1H - OH - OH	16,500.00	11,568.47	215.38	79.81	1.589	Collision Risk Procedures Re
Sioux 36 State 5H - OH - OH	16,520.88	11,621.31	358.34	225.53	2.698	CC, ES, SF

Offset Design: Sioux 25-36 Offsets - 1912 Federal 601H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD — **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	6.00	0.00	0.00	0.00	-64.14	453.18	-934.96	1,039.00				
100.00	100.00	103.35	97.35	0.27	0.14	-64.14	453.28	-935.02	1,039.10	1,038.70	0.41	2,548.196	
200.00	200.00	192.70	186.70	0.63	0.44	-64.13	453.62	-935.60	1,039.85	1,038.79	1.07	976.308	
300.00	300.00	287.37	281.36	0.99	0.78	-64.15	453.97	-937.02	1,041.36	1,039.60	1.76	591.015	
400.00	400.00	375.80	369.76	1.34	1.09	-64.18	454.27	-938.98	1,043.53	1,041.09	2.44	428.112	
500.00	500.00	467.04	460.95	1.70	1.42	-64.23	454.81	-942.19	1,046.95	1,043.83	3.12	335.200	
600.00	600.00	571.12	564.94	2.06	1.80	-64.33	454.77	-946.39	1,050.57	1,046.71	3.86	272.513	
700.00	700.00	675.73	669.48	2.42	2.18	-64.42	454.70	-950.04	1,053.68	1,049.09	4.59	229.594	
800.00	800.00	778.23	771.94	2.78	2.55	-64.50	454.59	-953.05	1,056.29	1,050.97	5.32	198.703	
900.00	900.00	874.86	868.52	3.14	2.90	-64.57	454.56	-956.10	1,059.13	1,053.10	6.02	175.889	
1,000.00	1,000.00	983.96	977.58	3.50	3.29	-64.66	454.37	-959.38	1,061.78	1,055.00	6.77	156.780	
1,100.00	1,100.00	1,090.83	1,084.42	3.85	3.68	-64.72	454.03	-961.57	1,063.48	1,055.97	7.51	141.527	
1,200.00	1,200.00	1,189.68	1,183.26	4.21	4.03	-64.77	453.88	-963.20	1,064.91	1,056.68	8.23	129.437	
1,300.00	1,300.00	1,287.72	1,281.28	4.57	4.38	-64.80	454.16	-964.95	1,066.65	1,057.71	8.94	119.354	
1,400.00	1,400.00	1,379.69	1,373.23	4.93	4.71	-64.79	455.06	-966.61	1,068.71	1,059.09	9.62	111.053	
1,500.00	1,500.00	1,474.95	1,468.44	5.29	5.06	-64.79	456.25	-969.13	1,071.62	1,061.30	10.32	103.821	
1,600.00	1,599.98	1,600.79	1,594.25	5.64	5.50	40.22	456.22	-971.92	1,072.35	1,061.23	11.12	96.460	
1,700.00	1,699.84	1,730.57	1,723.99	5.97	5.95	40.35	452.95	-972.03	1,067.32	1,055.43	11.90	89.721	
1,800.00	1,799.45	1,831.61	1,824.97	6.32	6.28	40.64	449.53	-971.01	1,058.33	1,045.75	12.58	84.135	
1,900.00	1,898.76	1,929.89	1,923.19	6.67	6.61	41.00	446.58	-969.84	1,047.04	1,033.79	13.26	78.975	
2,000.00	1,998.01	2,028.55	2,021.81	7.03	6.95	41.35	444.06	-968.51	1,035.51	1,021.57	13.94	74.279	
2,100.00	2,097.27	2,125.21	2,118.44	7.39	7.27	41.71	441.97	-967.19	1,024.19	1,009.56	14.62	70.041	
2,200.00	2,196.52	2,223.25	2,216.46	7.76	7.60	42.12	440.28	-965.84	1,013.09	997.78	15.31	66.161	
2,300.00	2,295.78	2,322.84	2,316.02	8.14	7.94	42.56	439.00	-964.26	1,002.05	986.04	16.01	62.590	
2,400.00	2,395.03	2,420.88	2,414.05	8.51	8.27	43.03	438.15	-962.49	991.08	974.38	16.70	59.329	
2,500.00	2,494.29	2,518.34	2,511.49	8.89	8.60	43.54	437.80	-960.71	980.40	962.99	17.40	56.341	
2,600.00	2,593.54	2,617.95	2,611.07	9.27	8.94	44.11	438.06	-958.51	969.76	951.66	18.11	53.560	
2,700.00	2,692.80	2,719.42	2,712.51	9.66	9.28	36.46	438.83	-955.95	958.95	940.13	18.82	50.956	
2,800.00	2,792.07	2,831.37	2,824.39	10.04	9.66	23.62	439.78	-952.06	945.81	926.25	19.56	48.356	
2,900.00	2,891.33	2,950.48	2,943.33	10.43	10.07	24.19	440.05	-945.74	930.22	909.91	20.31	45.802	
3,000.00	2,990.58	3,059.43	3,052.04	10.82	10.45	24.70	438.80	-938.62	912.96	891.92	21.03	43.403	
3,100.00	3,089.84	3,162.98	3,155.33	11.21	10.81	25.11	435.92	-931.87	894.93	873.18	21.75	41.146	
3,200.00	3,189.09	3,265.85	3,257.89	11.60	11.17	25.44	431.58	-925.35	876.36	853.89	22.47	39.010	
3,300.00	3,288.35	3,365.15	3,356.86	11.99	11.52	25.68	425.94	-919.52	857.44	834.27	23.18	36.997	
3,400.00	3,387.60	3,459.05	3,450.44	12.38	11.85	25.87	420.11	-914.49	838.70	814.82	23.88	35.118	
3,500.00	3,486.86	3,547.22	3,538.35	12.78	12.17	26.00	414.51	-910.76	820.83	796.24	24.58	33.390	
3,600.00	3,586.11	3,630.59	3,621.54	13.17	12.47	26.08	409.31	-908.76	804.55	779.27	25.28	31.830	
3,700.00	3,685.37	3,714.00	3,704.79	13.57	12.76	26.10	404.26	-908.70	790.28	764.31	25.97	30.436	
3,800.00	3,784.62	3,798.68	3,789.31	13.97	13.07	26.06	399.31	-910.43	777.90	751.25	26.65	29.187	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 601H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD — **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
3,900.00	3,883.88	3,885.70	3,876.12	14.36	13.37	25.96	394.35	-913.79	767.14	739.80	27.34	28.058	
4,000.00	3,983.13	3,975.35	3,965.49	14.76	13.69	25.79	389.24	-918.82	757.85	729.82	28.03	27.034	
4,100.00	4,082.39	4,077.72	4,067.52	15.16	14.05	25.60	383.83	-925.04	749.19	720.42	28.77	26.041	
4,200.00	4,181.64	4,186.03	4,175.62	15.56	14.44	25.53	379.01	-929.86	739.60	710.07	29.53	25.049	
4,300.00	4,280.90	4,280.00	4,269.39	15.96	14.77	25.45	374.53	-933.82	729.65	699.41	30.24	24.130	
4,400.00	4,380.15	4,375.00	4,364.14	16.36	15.11	25.31	369.67	-938.70	720.30	689.35	30.95	23.270	
4,500.00	4,479.40	4,469.00	4,457.90	16.76	15.45	25.20	365.58	-944.08	711.85	680.19	31.66	22.481	
4,600.00	4,578.66	4,567.75	4,556.40	17.16	15.80	25.10	361.83	-950.03	703.94	671.55	32.39	21.732	
4,700.00	4,677.91	4,665.25	4,653.66	17.56	16.15	25.03	358.47	-955.93	696.24	663.12	33.12	21.024	
4,800.00	4,777.17	4,768.95	4,757.15	17.96	16.53	25.00	355.39	-961.72	688.39	654.53	33.86	20.329	
4,900.00	4,876.42	4,873.26	4,861.29	18.36	16.90	25.00	352.17	-966.77	679.84	645.23	34.61	19.643	
5,000.00	4,975.68	4,973.53	4,961.42	18.76	17.26	25.04	349.25	-971.01	670.86	635.52	35.34	18.981	
5,100.00	5,074.93	5,071.92	5,059.71	19.17	17.61	25.15	347.24	-975.00	662.20	626.12	36.07	18.357	
5,200.00	5,174.19	5,174.11	5,161.82	19.57	17.98	25.30	345.26	-978.67	653.19	616.37	36.82	17.742	
5,300.00	5,273.44	5,278.88	5,266.46	19.97	18.36	25.33	341.83	-982.78	643.77	606.21	37.56	17.139	
5,400.00	5,372.70	5,380.47	5,367.88	20.37	18.73	25.30	337.49	-986.41	633.53	595.23	38.30	16.540	
5,500.00	5,471.95	5,477.79	5,464.96	20.78	19.08	25.15	332.21	-990.69	623.40	584.36	39.03	15.971	
5,600.00	5,571.21	5,574.40	5,561.22	21.18	19.44	24.85	325.93	-996.08	613.70	573.94	39.76	15.435	
5,700.00	5,670.46	5,675.92	5,662.32	21.58	19.82	24.48	318.96	-1,002.13	604.17	563.67	40.50	14.917	
5,800.00	5,769.72	5,784.74	5,770.73	21.99	20.22	24.10	311.23	-1,007.53	593.70	552.44	41.25	14.391	
5,900.00	5,868.97	5,883.98	5,869.66	22.39	20.59	23.82	304.52	-1,011.31	582.42	540.43	41.99	13.871	
6,000.00	5,968.23	5,982.88	5,968.25	22.79	20.95	23.51	297.59	-1,015.27	571.21	528.49	42.72	13.370	
6,100.00	6,067.48	6,084.22	6,069.19	23.20	21.33	23.09	289.75	-1,019.58	559.86	516.40	43.46	12.882	
6,200.00	6,166.74	6,185.98	6,170.57	23.60	21.71	22.67	281.77	-1,023.46	548.12	503.92	44.20	12.402	
6,300.00	6,265.99	6,287.36	6,271.58	24.01	22.09	22.26	273.80	-1,026.85	535.99	491.05	44.93	11.929	
6,400.00	6,365.25	6,388.57	6,372.42	24.41	22.47	21.84	265.80	-1,029.78	523.47	477.81	45.66	11.463	
6,500.00	6,464.50	6,488.85	6,472.35	24.82	22.84	21.42	257.80	-1,032.36	510.66	464.27	46.40	11.006	
6,600.00	6,563.76	6,586.41	6,569.57	25.22	23.20	21.00	250.06	-1,034.81	497.85	450.72	47.13	10.563	
6,700.00	6,663.01	6,680.49	6,663.33	25.63	23.56	20.56	242.81	-1,037.79	485.75	437.89	47.86	10.149	
6,800.00	6,762.27	6,777.16	6,759.66	26.03	23.92	20.10	235.92	-1,041.73	474.74	426.14	48.59	9.769	
6,900.00	6,861.52	6,875.50	6,857.70	26.44	24.28	19.64	229.23	-1,045.71	463.88	414.56	49.33	9.404	
7,000.00	6,960.78	6,973.83	6,955.73	26.84	24.65	19.19	222.86	-1,049.89	453.39	403.33	50.06	9.057	
7,100.00	7,060.03	7,073.35	7,054.98	27.25	25.02	18.76	216.75	-1,054.06	443.00	392.21	50.79	8.722	
7,200.00	7,159.29	7,173.06	7,154.52	27.65	25.39	18.53	212.15	-1,057.44	432.56	381.04	51.52	8.396	
7,300.00	7,258.54	7,275.08	7,256.44	28.06	25.76	18.48	208.59	-1,060.07	421.85	369.60	52.25	8.073	
7,400.00	7,357.80	7,374.43	7,355.75	28.46	26.12	18.60	206.07	-1,061.72	410.73	357.74	52.99	7.751	
7,500.00	7,457.05	7,473.20	7,454.50	28.87	26.47	18.90	204.70	-1,062.99	399.75	346.02	53.72	7.441	
7,600.00	7,556.31	7,573.50	7,554.80	29.27	26.83	19.32	203.91	-1,063.95	388.74	334.29	54.46	7.138	
7,700.00	7,655.56	7,673.84	7,655.13	29.68	27.17	19.89	203.74	-1,064.31	377.51	322.32	55.19	6.841	
7,800.00	7,754.82	7,774.46	7,755.75	30.08	27.51	20.61	204.06	-1,064.04	365.97	310.06	55.91	6.546	
7,900.00	7,854.07	7,873.49	7,854.77	30.49	27.83	21.43	204.68	-1,063.47	354.36	297.73	56.63	6.258	
8,000.00	7,953.33	7,972.50	7,953.78	30.90	28.16	22.36	205.58	-1,062.77	342.85	285.49	57.36	5.977	
8,100.00	8,052.58	8,070.42	8,051.69	31.30	28.48	23.42	206.93	-1,062.06	331.66	273.56	58.10	5.709	
8,200.00	8,151.84	8,169.15	8,150.41	31.71	28.80	24.54	208.46	-1,061.71	320.99	262.15	58.84	5.456	
8,300.00	8,251.09	8,269.44	8,250.69	32.11	29.13	25.70	209.53	-1,061.29	310.14	250.56	59.58	5.206	
8,400.00	8,350.35	8,369.02	8,350.26	32.52	29.46	26.85	210.21	-1,061.03	299.34	239.02	60.32	4.962	
8,500.00	8,449.60	8,470.44	8,451.68	32.93	29.80	28.13	210.74	-1,060.35	288.25	227.18	61.07	4.720	
8,600.00	8,548.86	8,571.58	8,552.80	33.33	30.14	29.68	211.40	-1,058.46	276.42	214.59	61.83	4.471	
8,700.00	8,648.11	8,671.05	8,652.24	33.74	30.47	31.41	212.05	-1,056.05	264.37	201.76	62.60	4.223	
8,800.00	8,747.37	8,770.81	8,751.98	34.15	30.81	33.07	211.76	-1,054.18	252.39	189.01	63.38	3.982	
8,900.00	8,846.62	8,869.77	8,850.93	34.55	31.15	34.72	210.82	-1,052.55	240.39	176.22	64.17	3.746	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 601H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.00	8,945.88	8,967.50	8,948.64	34.96	31.49	36.37	209.65	-1,051.57	228.92	163.94	64.98	3.523	
9,100.00	9,045.13	9,066.27	9,047.40	35.36	31.83	38.05	208.38	-1,051.33	218.12	152.33	65.78	3.316	
9,200.00	9,144.39	9,165.20	9,146.33	35.77	32.18	39.88	207.09	-1,051.22	207.62	141.02	66.60	3.118	
9,300.00	9,243.64	9,263.42	9,244.54	36.18	32.53	41.93	206.16	-1,051.20	197.66	130.23	67.43	2.931	
9,400.00	9,342.90	9,362.21	9,343.33	36.58	32.88	44.32	205.75	-1,051.16	188.40	120.13	68.27	2.760	
9,500.00	9,442.15	9,460.00	9,441.12	36.99	33.21	47.04	205.96	-1,051.07	179.97	110.84	69.12	2.604	
9,600.00	9,541.40	9,558.57	9,539.68	37.40	33.54	50.02	206.63	-1,051.36	172.59	102.61	69.98	2.466	
9,700.00	9,640.66	9,655.76	9,636.86	37.80	33.87	53.15	207.98	-1,052.26	166.65	95.82	70.84	2.353	
9,800.00	9,739.91	9,754.37	9,735.44	38.21	34.21	56.59	210.17	-1,053.42	162.12	90.43	71.69	2.261	
9,900.00	9,839.36	9,852.71	9,833.74	38.61	34.54	59.68	212.92	-1,054.69	159.66	87.14	72.52	2.202	
9,925.41	9,864.68	9,877.46	9,858.46	38.70	34.62	60.29	213.73	-1,055.12	159.54	86.83	72.71	2.194	
10,000.00	9,939.11	9,950.91	9,931.84	38.98	34.87	61.62	216.51	-1,056.85	160.44	87.17	73.27	2.190	
10,100.00	10,039.04	10,052.23	10,033.08	39.33	35.21	62.72	220.32	-1,058.51	162.90	88.89	74.01	2.201	
10,200.00	10,139.04	10,154.93	10,135.72	39.65	35.55	-20.30	223.51	-1,058.92	165.75	91.04	74.71	2.219	
10,300.00	10,239.04	10,258.42	10,239.21	39.97	35.91	-20.10	224.41	-1,058.63	166.46	91.07	75.39	2.208	
10,400.00	10,339.04	10,359.02	10,339.80	40.28	36.26	-20.14	223.96	-1,058.60	166.02	89.97	76.05	2.183	
10,500.00	10,439.04	10,459.62	10,440.41	40.60	36.61	-20.21	223.40	-1,058.60	165.51	88.78	76.72	2.157	
10,600.00	10,539.04	10,560.79	10,541.56	40.92	36.97	-20.63	221.85	-1,059.30	164.31	86.92	77.38	2.123	
10,700.00	10,639.04	10,661.54	10,642.27	41.24	37.33	-21.33	219.44	-1,060.53	162.51	84.48	78.04	2.083	
10,800.00	10,739.04	10,761.03	10,741.67	41.56	37.69	-22.69	216.25	-1,063.38	160.61	81.93	78.68	2.041	
10,900.00	10,839.04	10,860.24	10,840.71	41.89	38.05	-24.67	212.80	-1,067.91	159.26	79.95	79.30	2.008	
10,911.24	10,850.28	10,871.39	10,851.83	41.92	38.09	155.60	212.39	-1,068.53	159.20	79.82	79.37	2.006	CC, ES, SF
11,000.00	10,938.95	10,958.30	10,938.60	42.20	38.40	154.06	209.89	-1,072.96	161.17	81.24	79.94	2.016	
11,100.00	11,037.16	11,054.90	11,035.09	42.50	38.75	154.44	208.63	-1,077.13	178.28	97.63	80.65	2.210	
11,200.00	11,130.73	11,148.44	11,128.54	42.77	39.08	155.99	208.05	-1,081.30	211.54	130.14	81.40	2.599	
11,300.00	11,216.80	11,219.26	11,199.30	43.01	39.32	157.43	209.62	-1,082.67	261.74	179.80	81.94	3.194	
11,400.00	11,292.78	11,265.17	11,244.82	43.23	39.47	157.59	215.13	-1,080.91	331.85	249.91	81.94	4.050	
11,500.00	11,356.34	11,292.00	11,271.16	43.41	39.55	154.01	220.02	-1,079.37	416.89	335.26	81.63	5.107	
11,600.00	11,405.56	11,312.42	11,291.06	43.59	39.61	143.01	224.47	-1,078.32	510.94	429.36	81.58	6.263	
11,700.00	11,438.94	11,323.00	11,301.32	43.79	39.65	100.92	227.01	-1,077.96	609.38	527.71	81.67	7.462	
11,800.00	11,455.47	11,314.15	11,292.74	44.02	39.62	34.87	224.87	-1,078.26	708.31	626.67	81.64	8.676	
11,900.00	11,458.23	11,305.08	11,283.92	44.31	39.59	25.15	222.80	-1,078.65	805.84	724.01	81.83	9.848	
12,000.00	11,459.87	11,292.00	11,271.16	44.67	39.55	23.71	220.02	-1,079.37	903.56	821.64	81.92	11.029	
12,100.00	11,461.51	11,292.00	11,271.16	45.08	39.55	23.71	220.02	-1,079.37	1,001.54	919.36	82.18	12.188	
12,200.00	11,463.15	11,292.00	11,271.16	45.56	39.55	23.71	220.02	-1,079.37	1,099.88	1,017.51	82.37	13.353	
12,300.00	11,464.79	11,276.27	11,255.75	46.10	39.50	22.22	217.02	-1,080.31	1,198.21	1,115.85	82.36	14.548	
12,400.00	11,466.43	11,270.83	11,250.40	46.69	39.49	21.75	216.07	-1,080.61	1,296.81	1,214.36	82.46	15.728	
12,500.00	11,468.07	11,260.00	11,239.73	47.33	39.45	20.86	214.31	-1,081.17	1,395.60	1,313.11	82.48	16.919	
12,600.00	11,469.72	11,260.00	11,239.73	48.02	39.45	20.86	214.31	-1,081.17	1,494.43	1,411.83	82.60	18.092	
12,700.00	11,471.36	11,260.00	11,239.73	48.77	39.45	20.86	214.31	-1,081.17	1,593.41	1,510.70	82.70	19.267	
12,800.00	11,473.00	11,260.00	11,239.73	49.55	39.45	20.86	214.31	-1,081.17	1,692.50	1,609.71	82.79	20.443	
12,900.00	11,474.64	11,260.00	11,239.73	50.38	39.45	20.86	214.31	-1,081.17	1,791.70	1,708.83	82.87	21.620	
13,000.00	11,476.28	11,260.00	11,239.73	51.25	39.45	20.86	214.31	-1,081.17	1,890.98	1,808.04	82.94	22.798	
13,100.00	11,477.92	11,246.58	11,226.46	52.16	39.41	19.84	212.42	-1,081.79	1,990.12	1,907.19	82.93	23.998	
13,200.00	11,479.56	11,244.32	11,224.21	53.10	39.40	19.67	212.13	-1,081.88	2,089.46	2,006.48	82.98	25.179	
13,300.00	11,481.20	11,242.22	11,222.14	54.08	39.40	19.52	211.88	-1,081.97	2,188.85	2,105.82	83.03	26.361	
13,400.00	11,482.84	11,229.00	11,209.00	55.09	39.35	18.62	210.45	-1,082.43	2,288.43	2,205.41	83.02	27.564	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 701H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 25-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	11.10	0.00	0.00	0.00	-64.94	453.26	-969.37	1,070.10				
100.00	100.00	106.12	95.02	0.27	0.29	-64.94	453.28	-969.56	1,070.29	1,069.74	0.56	1,921.528	
200.00	200.00	198.10	186.99	0.63	0.62	-64.97	453.13	-970.45	1,071.10	1,069.86	1.24	861.127	
300.00	300.00	290.11	278.98	0.99	0.95	-65.02	452.86	-972.27	1,072.77	1,070.84	1.93	555.187	
400.00	400.00	388.63	377.47	1.34	1.30	-65.10	452.37	-974.71	1,074.80	1,072.16	2.64	406.461	
500.00	500.00	488.46	477.27	1.70	1.66	-65.20	451.68	-977.56	1,077.11	1,073.75	3.36	320.423	
600.00	600.00	586.64	575.40	2.06	2.02	-65.29	450.96	-980.13	1,079.18	1,075.11	4.07	264.959	
700.00	700.00	685.47	674.19	2.42	2.37	-65.40	450.13	-983.15	1,081.61	1,076.82	4.79	225.926	
800.00	800.00	784.62	773.28	2.78	2.73	-65.51	449.33	-986.23	1,084.09	1,078.59	5.50	196.992	
900.00	900.00	884.50	873.10	3.14	3.09	-65.62	448.39	-989.46	1,086.65	1,080.43	6.22	174.655	
1,000.00	1,000.00	983.90	972.45	3.50	3.45	-65.73	447.55	-992.50	1,089.08	1,082.15	6.94	156.962	
1,100.00	1,100.00	1,090.87	1,079.38	3.85	3.84	-65.83	446.87	-995.56	1,091.45	1,083.77	7.68	142.068	
1,200.00	1,200.00	1,195.49	1,183.98	4.21	4.22	-65.90	446.26	-997.58	1,092.96	1,084.55	8.42	129.850	
1,300.00	1,300.00	1,297.25	1,285.72	4.57	4.58	-65.95	445.98	-999.26	1,094.36	1,085.22	9.14	119.725	
1,400.00	1,400.00	1,400.60	1,389.07	4.93	4.95	-65.97	446.06	-1,000.53	1,095.52	1,085.65	9.87	111.006	
1,500.00	1,500.00	1,502.95	1,491.41	5.29	5.32	-66.00	446.00	-1,001.53	1,096.38	1,085.79	10.59	103.496	
1,600.00	1,599.98	1,602.93	1,591.39	5.64	5.68	39.06	446.12	-1,002.31	1,095.79	1,084.49	11.30	96.991	
1,700.00	1,699.84	1,703.79	1,692.25	5.97	6.03	39.27	446.33	-1,003.07	1,092.50	1,080.50	12.00	91.074	
1,800.00	1,799.45	1,800.70	1,789.15	6.32	6.38	39.61	446.35	-1,003.85	1,086.51	1,073.82	12.68	85.665	
1,900.00	1,898.76	1,902.78	1,891.22	6.67	6.74	40.02	445.96	-1,005.08	1,078.39	1,065.00	13.39	80.534	
2,000.00	1,998.01	2,007.09	1,995.53	7.03	7.10	40.49	446.66	-1,005.28	1,069.51	1,055.41	14.10	75.864	
2,100.00	2,097.27	2,110.74	2,099.18	7.39	7.45	40.98	447.40	-1,004.95	1,060.27	1,045.48	14.80	71.657	
2,200.00	2,196.52	2,214.09	2,202.52	7.76	7.79	41.48	448.03	-1,004.20	1,050.69	1,035.20	15.50	67.802	
2,300.00	2,295.78	2,315.54	2,303.97	8.14	8.12	41.98	448.41	-1,003.26	1,040.90	1,024.71	16.19	64.289	
2,400.00	2,395.03	2,418.20	2,406.62	8.51	8.46	42.48	448.51	-1,002.09	1,030.88	1,013.99	16.89	61.024	
2,500.00	2,494.29	2,517.79	2,506.20	8.89	8.80	42.99	448.75	-1,000.61	1,020.69	1,003.10	17.59	58.025	
2,600.00	2,593.54	2,616.09	2,604.48	9.27	9.13	43.53	449.43	-999.10	1,010.75	992.47	18.29	55.264	
2,700.00	2,692.80	2,719.73	2,708.10	9.66	9.48	35.85	450.30	-997.07	1,000.37	981.36	19.01	52.630	
2,800.00	2,792.07	2,820.11	2,808.44	10.04	9.82	22.92	451.46	-994.53	988.09	968.38	19.72	50.117	
2,900.00	2,891.33	2,914.35	2,902.66	10.43	10.14	23.30	452.37	-992.39	975.38	954.98	20.41	47.798	
3,000.00	2,990.58	3,010.53	2,998.83	10.82	10.46	23.62	452.64	-991.28	963.33	942.23	21.10	45.648	
3,100.00	3,089.84	3,113.51	3,101.80	11.21	10.82	23.96	452.51	-990.12	951.14	929.32	21.82	43.588	
3,200.00	3,189.09	3,210.05	3,198.33	11.60	11.15	24.29	452.52	-988.70	938.76	916.24	22.52	41.679	
3,300.00	3,288.35	3,302.89	3,291.16	11.99	11.47	24.61	452.58	-987.98	927.01	903.80	23.22	39.926	
3,400.00	3,387.60	3,400.04	3,388.30	12.38	11.81	24.84	451.43	-988.55	915.83	891.90	23.93	38.273	
3,500.00	3,486.86	3,500.61	3,488.82	12.78	12.16	24.96	448.61	-990.11	904.63	879.98	24.65	36.698	
3,600.00	3,586.11	3,598.39	3,586.49	13.17	12.50	24.99	444.66	-992.32	893.40	868.03	25.37	35.221	
3,700.00	3,685.37	3,691.74	3,679.69	13.57	12.83	24.95	440.06	-995.40	882.59	856.52	26.07	33.855	
3,800.00	3,784.62	3,779.49	3,767.21	13.97	13.14	24.85	435.46	-999.46	872.76	846.01	26.76	32.619	
3,900.00	3,883.88	3,865.76	3,853.12	14.36	13.45	24.64	430.25	-1,005.41	864.45	837.01	27.44	31.508	
4,000.00	3,983.13	3,955.28	3,942.12	14.76	13.78	24.35	424.61	-1,013.23	857.59	829.46	28.12	30.492	
4,100.00	4,082.39	4,049.95	4,036.24	15.16	14.12	24.06	419.39	-1,022.00	851.62	822.78	28.83	29.535	
4,200.00	4,181.64	4,153.68	4,139.46	15.56	14.50	23.83	414.82	-1,031.14	845.84	816.26	29.58	28.594	
4,300.00	4,280.90	4,262.76	4,248.26	15.96	14.90	23.79	412.11	-1,038.32	839.10	808.76	30.35	27.649	
4,400.00	4,380.15	4,369.01	4,354.38	16.36	15.28	23.89	410.77	-1,043.37	831.40	800.30	31.10	26.731	
4,500.00	4,479.40	4,463.09	4,448.39	16.76	15.62	24.07	410.53	-1,047.20	823.62	791.81	31.81	25.889	
4,600.00	4,578.66	4,557.62	4,542.81	17.16	15.96	24.25	410.65	-1,051.61	816.57	784.04	32.53	25.105	
4,700.00	4,677.91	4,648.59	4,633.58	17.56	16.29	24.29	409.57	-1,057.45	810.34	777.12	33.23	24.389	
4,800.00	4,777.17	4,735.34	4,719.88	17.96	16.61	24.11	406.37	-1,065.65	805.47	771.56	33.90	23.758	
4,900.00	4,876.42	4,828.94	4,812.74	18.36	16.96	23.78	401.98	-1,076.51	801.94	767.34	34.61	23.172	
5,000.00	4,975.68	4,931.69	4,914.80	18.76	17.34	23.51	398.44	-1,087.90	798.64	763.28	35.36	22.586	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 701H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 25-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,074.93	5,035.11	5,017.69	19.17	17.73	23.36	396.14	-1,098.03	794.82	758.71	36.11	22.009	
5,200.00	5,174.19	5,132.17	5,114.25	19.57	18.09	23.20	393.75	-1,107.66	791.00	754.16	36.84	21.473	
5,300.00	5,273.44	5,242.19	5,223.54	19.97	18.50	22.86	388.96	-1,119.28	786.83	749.21	37.62	20.914	
5,400.00	5,372.70	5,360.66	5,341.03	20.37	18.96	22.25	379.68	-1,131.23	780.57	742.14	38.43	20.311	
5,500.00	5,471.95	5,469.22	5,448.69	20.78	19.37	21.61	369.62	-1,140.94	772.72	733.52	39.20	19.714	
5,600.00	5,571.21	5,574.24	5,552.98	21.18	19.76	21.06	360.22	-1,149.04	764.01	724.06	39.95	19.126	
5,700.00	5,670.46	5,667.08	5,645.20	21.58	20.12	20.58	352.17	-1,155.93	755.25	714.59	40.67	18.572	
5,800.00	5,769.72	5,764.61	5,742.00	21.99	20.49	20.02	343.63	-1,164.31	747.54	706.15	41.40	18.058	
5,900.00	5,868.97	5,868.76	5,845.57	22.39	20.88	19.55	335.96	-1,172.10	739.52	697.38	42.15	17.547	
6,000.00	5,968.23	5,961.01	5,937.39	22.79	21.23	19.20	329.91	-1,178.64	731.54	688.68	42.86	17.068	
6,100.00	6,067.48	6,053.45	6,029.28	23.20	21.59	18.77	323.66	-1,186.50	724.78	681.21	43.57	16.634	
6,200.00	6,166.74	6,155.77	6,130.78	23.60	21.98	18.15	315.22	-1,196.36	718.49	674.17	44.32	16.211	
6,300.00	6,265.99	6,259.24	6,233.39	24.01	22.38	17.47	306.01	-1,205.92	711.64	666.57	45.07	15.790	
6,400.00	6,365.25	6,363.06	6,336.45	24.41	22.79	16.82	297.08	-1,214.72	704.31	658.49	45.82	15.371	
6,500.00	6,464.50	6,466.22	6,438.89	24.82	23.18	16.16	288.03	-1,222.89	696.50	649.94	46.57	14.957	
6,600.00	6,563.76	6,569.96	6,541.93	25.22	23.58	15.49	278.74	-1,230.49	688.15	640.84	47.31	14.546	
6,700.00	6,663.01	6,669.17	6,640.59	25.63	23.96	14.92	270.65	-1,237.02	679.48	631.44	48.04	14.143	
6,800.00	6,762.27	6,761.65	6,732.62	26.03	24.32	14.45	264.05	-1,243.33	671.48	622.72	48.76	13.772	
6,900.00	6,861.52	6,853.31	6,823.74	26.44	24.67	13.94	257.59	-1,250.81	664.79	615.33	49.47	13.439	
7,000.00	6,960.78	6,951.04	6,920.87	26.84	25.05	13.38	250.91	-1,259.36	658.81	608.62	50.19	13.126	
7,100.00	7,060.03	7,053.05	7,022.28	27.25	25.45	12.83	244.40	-1,268.28	653.03	602.10	50.93	12.821	
7,200.00	7,159.29	7,156.04	7,124.82	27.65	25.84	12.38	238.78	-1,275.98	646.39	594.72	51.68	12.508	
7,300.00	7,258.54	7,252.71	7,221.12	28.06	26.21	12.02	234.33	-1,283.24	640.11	587.71	52.40	12.216	
7,400.00	7,357.80	7,358.69	7,326.70	28.46	26.61	11.64	229.73	-1,291.07	633.83	580.69	53.15	11.926	
7,500.00	7,457.05	7,471.43	7,439.22	28.87	27.03	11.38	225.75	-1,296.95	625.74	571.84	53.90	11.608	
7,600.00	7,556.31	7,579.67	7,547.37	29.27	27.42	11.25	222.69	-1,300.32	615.88	561.24	54.64	11.272	
7,700.00	7,655.56	7,683.38	7,651.04	29.68	27.79	11.29	221.02	-1,302.03	605.00	549.64	55.36	10.928	
7,800.00	7,754.82	7,784.67	7,752.33	30.08	28.15	11.41	220.16	-1,302.91	593.61	537.52	56.08	10.584	
7,900.00	7,854.07	7,884.51	7,852.16	30.49	28.49	11.60	219.74	-1,303.47	582.07	525.26	56.81	10.247	
8,000.00	7,953.33	7,986.19	7,953.85	30.90	28.83	11.91	220.31	-1,303.40	570.24	512.73	57.52	9.915	
8,100.00	8,052.58	8,087.06	8,054.70	31.30	29.16	12.32	221.67	-1,302.67	558.07	499.85	58.22	9.586	
8,200.00	8,151.84	8,185.94	8,153.57	31.71	29.48	12.65	221.99	-1,302.12	545.75	486.82	58.93	9.261	
8,300.00	8,251.09	8,284.75	8,252.38	32.11	29.82	12.80	220.78	-1,302.37	533.69	474.05	59.64	8.948	
8,400.00	8,350.35	8,388.19	8,355.80	32.52	30.18	12.89	218.75	-1,302.46	521.26	460.91	60.35	8.637	
8,500.00	8,449.60	8,492.53	8,460.11	32.93	30.53	13.06	216.91	-1,301.36	507.80	446.76	61.05	8.318	
8,600.00	8,548.86	8,593.33	8,560.88	33.33	30.86	13.29	215.32	-1,299.42	493.61	431.86	61.75	7.994	
8,700.00	8,648.11	8,692.64	8,660.17	33.74	31.19	13.60	214.28	-1,297.18	479.30	416.84	62.46	7.674	
8,800.00	8,747.37	8,794.60	8,762.08	34.15	31.52	13.96	213.29	-1,294.52	464.70	401.55	63.15	7.359	
8,900.00	8,846.62	8,892.72	8,860.16	34.55	31.84	14.31	212.06	-1,291.67	449.75	385.89	63.87	7.042	
9,000.00	8,945.88	8,990.07	8,957.46	34.96	32.17	14.62	210.53	-1,289.30	435.13	370.55	64.59	6.737	
9,100.00	9,045.13	9,087.42	9,054.78	35.36	32.49	14.92	208.88	-1,287.35	420.89	355.57	65.32	6.444	
9,200.00	9,144.39	9,182.28	9,149.62	35.77	32.81	15.23	207.52	-1,286.05	407.33	341.27	66.06	6.166	
9,300.00	9,243.64	9,270.46	9,237.80	36.18	33.11	15.55	206.99	-1,286.31	395.63	328.80	66.83	5.920	
9,400.00	9,342.90	9,365.31	9,332.62	36.58	33.45	15.92	207.18	-1,288.46	386.06	318.49	67.57	5.713	
9,500.00	9,442.15	9,457.46	9,424.70	36.99	33.77	16.24	207.54	-1,291.90	377.92	309.62	68.30	5.533	
9,600.00	9,541.40	9,551.87	9,518.97	37.40	34.11	16.58	208.56	-1,296.97	371.57	302.55	69.02	5.383	
9,700.00	9,640.66	9,656.38	9,623.32	37.80	34.48	17.04	210.17	-1,302.58	365.43	295.65	69.78	5.237	
9,800.00	9,739.91	9,756.59	9,723.41	38.21	34.84	17.55	211.71	-1,307.03	358.46	287.93	70.52	5.083	
9,900.00	9,839.36	9,858.65	9,825.38	38.61	35.20	18.04	213.47	-1,310.98	352.69	281.42	71.27	4.949	
10,000.00	9,939.11	9,960.04	9,926.70	38.98	35.55	18.35	214.94	-1,314.72	349.99	278.00	71.99	4.861	
10,100.00	10,039.04	10,066.97	10,033.59	39.33	35.93	18.45	215.51	-1,317.21	348.97	276.27	72.70	4.800	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 701H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,111.06	10,050.10	10,078.24	10,044.86	39.36	35.97	18.45	215.53	-1,317.39	348.96	276.19	72.77	4.795	
10,200.00	10,139.04	10,169.69	10,136.31	39.65	36.29	-65.06	215.57	-1,318.59	349.78	276.41	73.37	4.767	
10,300.00	10,239.04	10,270.11	10,236.70	39.97	36.65	-65.36	214.11	-1,319.78	350.24	276.20	74.05	4.730	
10,400.00	10,339.04	10,367.96	10,334.51	40.28	37.00	-65.83	211.90	-1,321.92	351.31	276.58	74.73	4.701	
10,500.00	10,439.04	10,469.86	10,436.37	40.60	37.36	-66.21	210.29	-1,323.98	352.51	277.11	75.40	4.675	
10,600.00	10,539.04	10,577.91	10,544.39	40.92	37.74	-66.59	208.05	-1,324.72	352.32	276.30	76.02	4.634	
10,700.00	10,639.04	10,681.21	10,647.65	41.24	38.09	-66.89	205.45	-1,323.37	350.13	273.46	76.67	4.567	
10,800.00	10,739.04	10,778.70	10,745.10	41.56	38.43	-67.19	202.98	-1,322.11	347.94	270.59	77.36	4.498	
10,900.00	10,839.04	10,886.78	10,853.11	41.89	38.80	-67.59	199.60	-1,320.31	345.22	267.28	77.94	4.429	
10,993.35	10,932.26	10,976.94	10,943.11	42.18	39.11	112.95	194.49	-1,318.92	343.50	264.88	78.62	4.369	
11,000.00	10,938.95	10,983.31	10,949.46	42.20	39.13	112.63	194.02	-1,318.90	342.69	264.04	78.65	4.357	CC, ES, SF
11,100.00	11,037.16	11,075.00	11,040.94	42.50	39.46	113.78	187.89	-1,318.71	347.22	267.73	79.49	4.368	
11,200.00	11,130.73	11,161.96	11,127.86	42.77	39.76	116.52	185.67	-1,318.84	362.09	281.68	80.41	4.503	
11,300.00	11,216.80	11,245.74	11,211.63	43.01	40.04	119.99	186.95	-1,319.21	390.33	308.92	81.41	4.795	
11,400.00	11,292.78	11,318.98	11,284.85	43.23	40.29	122.36	188.43	-1,319.48	432.67	350.28	82.39	5.252	
11,500.00	11,356.34	11,381.00	11,346.86	43.41	40.50	122.70	189.92	-1,319.74	489.69	406.43	83.26	5.881	
11,600.00	11,405.56	11,432.06	11,397.90	43.59	40.67	120.15	190.88	-1,319.89	559.57	475.60	83.97	6.664	
11,700.00	11,438.94	11,462.88	11,428.73	43.79	40.77	112.18	191.31	-1,319.97	639.77	555.28	84.48	7.573	
11,800.00	11,455.47	11,474.39	11,440.23	44.02	40.81	96.55	191.51	-1,320.03	727.22	642.40	84.82	8.574	
11,900.00	11,458.23	11,474.96	11,440.80	44.31	40.81	89.09	191.52	-1,320.03	818.34	733.31	85.03	9.624	
12,000.00	11,459.87	11,474.68	11,440.51	44.67	40.81	89.04	191.52	-1,320.03	911.33	826.14	85.19	10.698	
12,100.00	11,461.51	11,474.41	11,440.25	45.08	40.81	88.99	191.51	-1,320.03	1,005.67	920.35	85.32	11.787	
12,200.00	11,463.15	11,474.15	11,439.99	45.56	40.81	88.94	191.51	-1,320.03	1,101.01	1,015.59	85.42	12.890	
12,300.00	11,464.79	11,473.91	11,439.75	46.10	40.81	88.90	191.50	-1,320.03	1,197.11	1,111.61	85.50	14.001	
12,400.00	11,466.43	11,473.68	11,439.52	46.69	40.81	88.86	191.50	-1,320.03	1,293.80	1,208.23	85.57	15.119	
12,500.00	11,468.07	11,473.45	11,439.29	47.33	40.81	88.82	191.49	-1,320.02	1,390.96	1,305.32	85.64	16.243	
12,600.00	11,469.72	11,473.24	11,439.08	48.02	40.81	88.78	191.49	-1,320.02	1,488.49	1,402.80	85.69	17.371	
12,700.00	11,471.36	11,473.04	11,438.88	48.77	40.81	88.74	191.49	-1,320.02	1,586.33	1,500.59	85.74	18.502	
12,800.00	11,473.00	11,472.85	11,438.69	49.55	40.81	88.71	191.48	-1,320.02	1,684.43	1,598.64	85.79	19.635	
12,900.00	11,474.64	11,472.66	11,438.50	50.38	40.80	88.67	191.48	-1,320.02	1,782.74	1,696.91	85.83	20.771	
13,000.00	11,476.28	11,472.48	11,438.32	51.25	40.80	88.64	191.48	-1,320.02	1,881.22	1,795.35	85.87	21.908	
13,100.00	11,477.92	11,452.00	11,417.84	52.16	40.73	84.95	191.15	-1,319.93	1,980.04	1,894.21	85.84	23.068	
13,200.00	11,479.56	11,452.00	11,417.84	53.10	40.73	84.95	191.15	-1,319.93	2,078.80	1,992.93	85.87	24.207	
13,300.00	11,481.20	11,452.00	11,417.84	54.08	40.73	84.95	191.15	-1,319.93	2,177.67	2,091.76	85.91	25.348	
13,400.00	11,482.84	11,452.00	11,417.84	55.09	40.73	84.95	191.15	-1,319.93	2,276.64	2,190.70	85.95	26.488	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 702H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	6.00	0.00	0.00	0.00	-63.23	453.82	-899.61	1,007.60				
100.00	100.00	102.72	96.72	0.27	0.27	-63.25	453.58	-899.87	1,007.73	1,007.19	0.54	1,860.740	
200.00	200.00	193.19	187.19	0.63	0.59	-63.30	453.14	-900.87	1,008.49	1,007.27	1.22	825.248	
300.00	300.00	289.47	283.44	0.99	0.94	-63.34	453.14	-902.59	1,010.09	1,008.16	1.92	525.004	
400.00	400.00	382.75	376.71	1.34	1.27	-63.40	453.11	-904.64	1,012.04	1,009.42	2.62	386.745	
500.00	500.00	486.49	480.41	1.70	1.64	-63.48	452.57	-906.99	1,013.82	1,010.47	3.35	302.910	
600.00	600.00	580.31	574.18	2.06	1.98	-63.61	451.53	-909.95	1,016.15	1,012.11	4.04	251.383	
700.00	700.00	675.25	669.05	2.42	2.32	-63.75	450.42	-913.45	1,018.93	1,014.19	4.74	214.884	
800.00	800.00	778.83	772.56	2.78	2.70	-63.88	449.70	-917.09	1,021.78	1,016.31	5.47	186.702	
900.00	900.00	885.76	879.45	3.14	3.08	-63.98	449.09	-920.13	1,024.08	1,017.87	6.22	164.760	
1,000.00	1,000.00	988.82	982.47	3.50	3.45	-64.09	448.25	-922.65	1,025.93	1,018.98	6.94	147.737	
1,100.00	1,100.00	1,091.35	1,084.98	3.85	3.82	-64.17	447.64	-924.87	1,027.61	1,019.94	7.67	133.961	
1,200.00	1,200.00	1,192.80	1,186.41	4.21	4.18	-64.23	447.30	-926.56	1,028.97	1,020.58	8.39	122.593	
1,300.00	1,300.00	1,297.64	1,291.25	4.57	4.56	-64.28	446.97	-927.85	1,029.93	1,020.80	9.13	112.834	
1,400.00	1,400.00	1,397.98	1,391.58	4.93	4.92	-64.31	446.76	-928.89	1,030.78	1,020.94	9.85	104.689	
1,500.00	1,500.00	1,508.44	1,502.03	5.29	5.31	-64.34	446.57	-929.62	1,031.32	1,020.73	10.59	97.366	
1,600.00	1,599.98	1,625.43	1,619.01	5.64	5.70	40.75	445.82	-928.58	1,028.91	1,017.58	11.33	90.822	
1,700.00	1,699.84	1,729.06	1,722.63	5.97	6.04	41.03	444.86	-926.60	1,022.83	1,010.82	12.01	85.164	
1,800.00	1,799.45	1,825.65	1,819.19	6.32	6.36	41.47	444.25	-924.64	1,014.16	1,001.49	12.67	80.015	
1,900.00	1,898.76	1,923.00	1,916.52	6.67	6.69	42.01	443.88	-922.77	1,003.48	990.14	13.35	75.182	
2,000.00	1,998.01	2,017.00	2,010.51	7.03	7.00	42.49	443.74	-921.17	992.85	978.84	14.01	70.847	
2,100.00	2,097.27	2,112.00	2,105.50	7.39	7.33	42.99	443.89	-919.77	982.65	967.96	14.69	66.896	
2,200.00	2,196.52	2,206.00	2,199.48	7.76	7.65	43.54	445.00	-918.48	973.09	957.72	15.37	63.324	
2,300.00	2,295.78	2,316.50	2,309.96	8.14	8.02	44.22	446.26	-916.66	963.37	947.27	16.10	59.830	
2,400.00	2,395.03	2,417.03	2,410.46	8.51	8.37	44.83	446.87	-914.53	953.10	936.29	16.81	56.702	
2,500.00	2,494.29	2,516.65	2,510.06	8.89	8.71	45.46	447.55	-912.23	942.81	925.29	17.52	53.821	
2,600.00	2,593.54	2,616.46	2,609.84	9.27	9.05	46.10	448.21	-909.92	932.62	914.39	18.23	51.158	
2,700.00	2,692.80	2,719.96	2,713.30	9.66	9.41	38.52	448.98	-907.08	921.97	903.01	18.96	48.635	
2,800.00	2,792.07	2,827.41	2,820.68	10.04	9.78	25.71	449.78	-903.30	909.03	889.34	19.69	46.161	
2,900.00	2,891.33	2,935.94	2,929.11	10.43	10.16	26.22	449.50	-898.70	894.36	873.93	20.43	43.782	
3,000.00	2,990.58	3,043.66	3,036.69	10.82	10.54	26.72	448.20	-893.48	878.74	857.58	21.16	41.530	
3,100.00	3,089.84	3,153.83	3,146.64	11.21	10.92	27.32	447.06	-886.50	862.05	840.15	21.89	39.374	
3,200.00	3,189.09	3,288.04	3,280.22	11.60	11.39	28.20	444.88	-873.95	842.66	820.01	22.65	37.205	
3,300.00	3,288.35	3,408.35	3,399.49	11.99	11.81	29.06	440.64	-858.71	819.58	796.21	23.36	35.079	
3,400.00	3,387.60	3,517.01	3,506.95	12.38	12.20	29.84	434.96	-843.69	794.79	770.73	24.07	33.025	
3,500.00	3,486.86	3,618.23	3,606.93	12.78	12.55	30.53	428.13	-829.45	769.07	744.30	24.77	31.048	
3,600.00	3,586.11	3,709.02	3,696.65	13.17	12.88	31.09	420.98	-817.50	743.50	718.01	25.49	29.172	
3,700.00	3,685.37	3,794.06	3,780.83	13.57	13.18	31.60	414.44	-807.40	719.12	692.91	26.21	27.433	
3,800.00	3,784.62	3,879.09	3,865.20	13.97	13.48	32.13	408.64	-798.53	696.45	669.50	26.94	25.850	
3,900.00	3,883.88	3,969.19	3,954.75	14.36	13.80	32.70	403.14	-790.33	675.30	647.63	27.67	24.406	
4,000.00	3,983.13	4,064.88	4,049.93	14.76	14.14	33.37	397.93	-781.91	654.88	626.48	28.40	23.062	
4,100.00	4,082.39	4,161.47	4,145.99	15.16	14.49	34.16	393.32	-773.03	634.68	605.55	29.13	21.791	
4,200.00	4,181.64	4,257.72	4,241.75	15.56	14.83	34.97	388.64	-764.49	614.80	584.94	29.86	20.590	
4,300.00	4,280.90	4,350.12	4,333.72	15.96	15.16	35.80	384.40	-756.64	595.49	564.89	30.60	19.462	
4,400.00	4,380.15	4,441.98	4,425.20	16.36	15.49	36.78	381.65	-748.80	577.37	546.03	31.34	18.422	
4,500.00	4,479.40	4,543.41	4,526.25	16.76	15.86	37.92	378.86	-740.53	559.89	527.80	32.08	17.452	
4,600.00	4,578.66	4,646.83	4,629.25	17.16	16.23	38.92	373.53	-732.88	541.47	508.65	32.82	16.500	
4,700.00	4,677.91	4,735.19	4,717.28	17.56	16.54	39.68	368.25	-727.39	523.46	489.89	33.57	15.593	
4,800.00	4,777.17	4,821.34	4,803.25	17.96	16.85	40.44	364.29	-723.61	507.78	473.46	34.32	14.795	
4,900.00	4,876.42	4,910.08	4,891.92	18.36	17.17	41.26	361.67	-721.14	494.49	459.42	35.06	14.104	
5,000.00	4,975.68	5,005.29	4,987.10	18.76	17.51	42.19	360.01	-719.48	482.89	447.08	35.81	13.486	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 702H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD+IFR1+MS — **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
5,100.00	5,074.93	5,106.00	5,087.78	19.17	17.87	43.26	358.41	-717.42	471.36	434.80	36.56	12.892	
5,200.00	5,174.19	5,217.08	5,198.76	19.57	18.26	44.62	356.23	-713.52	458.84	421.52	37.33	12.293	
5,300.00	5,273.44	5,324.69	5,306.13	19.97	18.65	46.09	352.13	-707.60	443.85	405.77	38.08	11.657	
5,400.00	5,372.70	5,437.57	5,418.53	20.37	19.05	47.66	345.04	-700.09	426.48	387.70	38.78	10.996	
5,500.00	5,471.95	5,546.13	5,526.19	20.78	19.45	49.58	336.32	-689.23	406.04	366.56	39.49	10.283	
5,600.00	5,571.21	5,643.92	5,622.97	21.18	19.80	51.63	327.87	-678.08	384.79	344.53	40.26	9.557	
5,700.00	5,670.46	5,738.13	5,716.25	21.58	20.14	53.82	319.92	-667.50	364.32	323.24	41.08	8.870	
5,800.00	5,769.72	5,834.92	5,812.18	21.99	20.50	56.29	312.29	-657.18	345.20	303.33	41.88	8.244	
5,900.00	5,868.97	5,934.73	5,910.92	22.39	20.86	59.32	304.11	-645.09	325.89	283.23	42.66	7.639	
6,000.00	5,968.23	6,030.95	6,006.02	22.79	21.21	62.72	296.25	-632.75	307.32	263.83	43.49	7.066	
6,100.00	6,067.48	6,126.80	6,100.76	23.20	21.56	66.53	288.63	-620.42	290.16	245.82	44.34	6.544	
6,200.00	6,166.74	6,222.42	6,195.31	23.60	21.91	70.75	281.21	-608.22	274.67	229.49	45.19	6.079	
6,300.00	6,265.99	6,318.41	6,290.27	24.01	22.26	75.39	274.04	-596.20	261.24	215.21	46.03	5.675	
6,400.00	6,365.25	6,414.68	6,385.53	24.41	22.61	80.49	266.95	-584.15	249.88	203.02	46.86	5.333	
6,500.00	6,464.50	6,511.47	6,481.29	24.82	22.97	86.04	259.91	-571.97	240.88	193.22	47.66	5.054	
6,600.00	6,563.76	6,607.65	6,576.40	25.22	23.32	91.95	252.81	-559.63	234.33	185.91	48.43	4.839	
6,700.00	6,663.01	6,702.88	6,670.66	25.63	23.67	97.95	246.22	-547.72	230.97	181.82	49.15	4.699	
6,746.40	6,709.07	6,746.92	6,714.29	25.81	23.83	100.71	243.44	-542.37	230.58	181.12	49.46	4.662	CC, ES
6,800.00	6,762.27	6,797.41	6,764.37	26.03	24.01	103.74	240.67	-536.66	231.13	181.31	49.81	4.640	SF
6,900.00	6,861.52	6,894.12	6,860.52	26.44	24.37	109.05	236.56	-527.13	234.52	184.07	50.45	4.649	
7,000.00	6,960.78	6,992.59	6,958.54	26.84	24.72	114.00	232.71	-518.51	239.75	188.66	51.08	4.693	
7,100.00	7,060.03	7,091.21	7,056.78	27.25	25.08	118.55	228.96	-510.72	246.30	194.60	51.70	4.764	
7,200.00	7,159.29	7,190.38	7,155.63	27.65	25.44	122.74	225.26	-503.61	253.97	201.64	52.33	4.853	
7,300.00	7,258.54	7,288.87	7,253.84	28.06	25.80	126.55	221.58	-497.09	262.52	209.58	52.95	4.958	
7,400.00	7,357.80	7,389.91	7,354.66	28.46	26.16	129.97	218.29	-491.58	271.68	218.09	53.60	5.069	
7,500.00	7,457.05	7,489.67	7,454.33	28.87	26.52	132.73	215.87	-488.02	280.81	226.57	54.25	5.177	
7,600.00	7,556.31	7,581.47	7,546.08	29.27	26.85	134.82	215.37	-484.98	291.49	236.65	54.83	5.316	
7,700.00	7,655.56	7,683.86	7,648.42	29.68	27.21	136.63	216.77	-482.12	303.30	247.76	55.54	5.461	
7,800.00	7,754.82	7,783.68	7,748.21	30.08	27.55	138.02	218.74	-480.80	314.51	258.30	56.22	5.594	
7,900.00	7,854.07	7,882.70	7,847.20	30.49	27.89	139.24	220.92	-479.77	325.78	268.89	56.90	5.726	
8,000.00	7,953.33	7,981.62	7,946.08	30.90	28.23	140.39	223.08	-478.62	337.28	279.71	57.57	5.858	
8,100.00	8,052.58	8,082.17	8,046.62	31.30	28.57	141.53	224.89	-477.46	348.71	290.44	58.27	5.985	
8,200.00	8,151.84	8,183.10	8,147.53	31.71	28.92	142.67	226.14	-476.51	359.80	300.84	58.96	6.102	
8,300.00	8,251.09	8,284.29	8,248.71	32.11	29.27	143.75	227.09	-475.96	370.52	310.86	59.66	6.211	
8,400.00	8,350.35	8,386.47	8,350.89	32.52	29.62	144.77	227.78	-476.01	380.72	320.36	60.36	6.308	
8,500.00	8,449.60	8,488.97	8,453.39	32.93	29.96	145.69	228.31	-476.97	390.17	329.12	61.05	6.391	
8,600.00	8,548.86	8,587.73	8,552.14	33.33	30.29	146.56	228.54	-478.27	399.25	337.53	61.72	6.469	
8,700.00	8,648.11	8,682.72	8,647.13	33.74	30.61	147.40	228.72	-478.74	409.13	346.76	62.37	6.560	
8,800.00	8,747.37	8,778.66	8,743.07	34.15	30.94	148.31	228.73	-477.98	420.19	357.15	63.04	6.666	
8,900.00	8,846.62	8,880.72	8,845.11	34.55	31.31	149.35	227.95	-476.64	431.52	367.77	63.75	6.769	
9,000.00	8,945.88	8,983.94	8,948.30	34.96	31.67	150.51	225.63	-475.80	441.94	377.48	64.46	6.856	
9,100.00	9,045.13	9,085.61	9,049.92	35.36	32.02	151.68	222.40	-475.38	451.80	386.65	65.15	6.935	
9,200.00	9,144.39	9,188.94	9,153.18	35.77	32.38	152.84	218.72	-475.59	461.14	395.29	65.85	7.003	
9,300.00	9,243.64	9,289.05	9,253.21	36.18	32.73	153.94	214.82	-476.29	470.07	403.54	66.53	7.065	
9,400.00	9,342.90	9,386.59	9,350.66	36.58	33.07	155.01	210.77	-476.78	479.27	412.06	67.21	7.131	
9,500.00	9,442.15	9,485.35	9,449.33	36.99	33.41	156.09	206.40	-476.98	488.84	420.95	67.89	7.200	
9,600.00	9,541.40	9,583.81	9,547.68	37.40	33.76	157.16	201.77	-477.01	498.66	430.09	68.57	7.272	
9,700.00	9,640.66	9,681.57	9,645.32	37.80	34.10	158.20	197.00	-476.76	508.88	439.62	69.25	7.348	
9,800.00	9,739.91	9,779.72	9,743.37	38.21	34.44	159.19	192.50	-476.40	519.44	449.50	69.94	7.427	
9,900.00	9,839.36	9,875.36	9,838.98	38.61	34.78	159.87	190.37	-476.32	528.82	458.21	70.61	7.489	
10,000.00	9,939.11	9,967.17	9,930.79	38.98	35.10	160.17	190.42	-475.45	536.34	465.08	71.26	7.527	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - 1912 Federal 702H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25-MWD+IFR1+MS — **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
10,100.00	10,039.04	10,063.98	10,027.58	39.33	35.44	160.35	190.63	-473.68	541.48	469.55	71.93	7.527	
10,200.00	10,139.04	10,159.43	10,123.00	39.65	35.78	76.88	191.62	-471.51	544.36	471.77	72.59	7.499	
10,300.00	10,239.04	10,257.63	10,221.14	39.97	36.12	76.82	192.95	-468.30	547.85	474.59	73.26	7.478	
10,400.00	10,339.04	10,364.71	10,328.18	40.28	36.50	76.80	193.70	-465.92	550.15	476.14	74.01	7.433	
10,500.00	10,439.04	10,461.99	10,425.45	40.60	36.85	76.86	193.62	-463.77	552.28	477.60	74.68	7.395	
10,600.00	10,539.04	10,562.53	10,525.94	40.92	37.21	76.94	193.42	-461.00	554.93	479.55	75.38	7.362	
10,700.00	10,639.04	10,673.00	10,636.40	41.24	37.59	76.93	193.96	-459.35	556.51	480.37	76.14	7.309	
10,800.00	10,739.04	10,783.81	10,747.20	41.56	37.96	76.88	194.28	-460.04	555.96	479.08	76.88	7.232	
10,900.00	10,839.04	10,882.88	10,846.26	41.89	38.29	76.78	194.85	-461.67	554.49	476.94	77.55	7.150	
10,937.99	10,877.02	10,918.11	10,881.48	42.00	38.41	-102.82	195.28	-462.17	554.23	476.44	77.79	7.125	
11,000.00	10,938.95	10,974.99	10,938.35	42.20	38.60	-103.06	196.37	-462.63	554.45	476.27	78.18	7.092	
11,100.00	11,037.16	11,067.99	11,031.33	42.50	38.92	-104.47	198.50	-462.61	559.47	480.64	78.84	7.097	
11,200.00	11,130.73	11,156.81	11,120.12	42.77	39.23	-106.52	200.10	-461.74	571.01	491.52	79.49	7.184	
11,300.00	11,216.80	11,252.53	11,215.84	43.01	39.56	-109.31	200.61	-460.71	590.24	510.01	80.22	7.358	
11,400.00	11,292.78	11,325.45	11,288.76	43.23	39.82	-110.84	200.36	-460.42	618.94	538.12	80.82	7.659	
11,500.00	11,356.34	11,377.14	11,340.43	43.41	40.00	-110.22	200.76	-459.90	660.38	579.12	81.26	8.127	
11,600.00	11,405.56	11,407.71	11,370.96	43.59	40.11	-106.55	202.37	-459.79	715.23	633.71	81.51	8.774	
11,700.00	11,438.94	11,423.62	11,386.81	43.79	40.16	-99.41	203.72	-459.83	781.56	699.93	81.63	9.574	
11,800.00	11,455.47	11,427.52	11,390.69	44.02	40.18	-88.67	204.10	-459.85	856.04	774.37	81.67	10.481	
11,900.00	11,458.23	11,423.70	11,386.90	44.31	40.16	-83.81	203.72	-459.83	935.31	853.63	81.68	11.451	
12,000.00	11,459.87	11,419.86	11,383.07	44.67	40.15	-83.41	203.36	-459.81	1,018.16	936.47	81.69	12.463	
12,100.00	11,461.51	11,416.50	11,379.73	45.08	40.14	-83.06	203.07	-459.80	1,103.83	1,022.13	81.70	13.510	
12,200.00	11,463.15	11,413.54	11,376.78	45.56	40.13	-82.75	202.82	-459.80	1,191.72	1,110.01	81.71	14.584	
12,300.00	11,464.79	11,410.91	11,374.16	46.10	40.12	-82.48	202.61	-459.79	1,281.37	1,199.64	81.73	15.679	
12,400.00	11,466.43	11,408.56	11,371.81	46.69	40.11	-82.24	202.43	-459.79	1,372.44	1,290.70	81.74	16.790	
12,500.00	11,468.07	11,406.45	11,369.71	47.33	40.10	-82.02	202.27	-459.79	1,464.67	1,382.91	81.75	17.915	
12,600.00	11,469.72	11,404.54	11,367.80	48.02	40.10	-81.82	202.14	-459.79	1,557.85	1,476.08	81.77	19.052	
12,700.00	11,471.36	11,402.80	11,366.07	48.77	40.09	-81.64	202.02	-459.79	1,651.82	1,570.03	81.79	20.197	
12,800.00	11,473.00	11,401.22	11,364.49	49.55	40.09	-81.48	201.92	-459.80	1,746.45	1,664.65	81.80	21.349	
12,900.00	11,474.64	11,399.77	11,363.04	50.38	40.08	-81.33	201.82	-459.80	1,841.65	1,759.83	81.82	22.508	
13,000.00	11,476.28	11,398.43	11,361.71	51.25	40.08	-81.19	201.74	-459.80	1,937.33	1,855.49	81.84	23.672	
13,100.00	11,477.92	11,397.20	11,360.48	52.16	40.07	-81.07	201.67	-459.80	2,033.42	1,951.56	81.86	24.839	
13,200.00	11,479.56	11,396.06	11,359.34	53.10	40.07	-80.95	201.60	-459.81	2,129.87	2,047.99	81.88	26.011	
13,300.00	11,481.20	11,395.00	11,358.29	54.08	40.06	-80.84	201.54	-459.81	2,226.63	2,144.73	81.91	27.185	
13,400.00	11,482.84	11,394.02	11,357.30	55.09	40.06	-80.74	201.49	-459.81	2,323.67	2,241.74	81.93	28.361	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Fed Com 803H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 144-MWD+IFR1+MS — **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	9.47	-0.53	0.00	0.01	-60.83	454.71	-814.62	932.94				
100.00	100.00	104.21	94.21	0.27	0.15	-60.84	454.75	-814.97	933.28	932.86	0.42	2,236.866	
200.00	200.00	193.00	182.99	0.63	0.38	-60.87	454.81	-816.02	934.36	933.35	1.01	925.621	
300.00	300.00	291.82	281.78	0.99	0.74	-60.94	454.80	-818.56	936.60	934.88	1.72	543.948	
400.00	400.00	397.94	387.89	1.34	1.11	-60.95	455.47	-820.08	938.15	935.70	2.46	381.530	
500.00	500.00	525.23	515.16	1.70	1.55	-60.86	456.49	-818.83	937.60	934.35	3.25	288.276	
600.00	600.00	621.87	611.78	2.06	1.88	-60.79	456.79	-817.00	936.10	932.16	3.94	237.741	
700.00	700.00	715.52	705.42	2.42	2.20	-60.77	456.70	-816.09	935.20	930.58	4.62	202.538	
797.66	797.66	807.76	797.66	2.77	2.52	-60.76	456.68	-815.78	934.90	929.62	5.29	176.797	
800.00	800.00	809.94	799.85	2.78	2.53	-60.76	456.68	-815.77	934.90	929.60	5.30	176.262	
900.00	900.00	905.61	895.51	3.14	2.86	-60.74	457.07	-815.92	935.24	929.24	6.00	155.918	
1,000.00	1,000.00	1,005.28	995.18	3.50	3.21	-60.71	457.73	-816.05	935.67	928.96	6.71	139.473	
1,100.00	1,100.00	1,100.22	1,090.11	3.85	3.55	-60.68	458.51	-816.42	936.41	929.01	7.40	126.493	
1,200.00	1,200.00	1,195.68	1,185.57	4.21	3.89	-60.65	459.66	-817.31	937.81	929.71	8.10	115.790	
1,300.00	1,300.00	1,296.57	1,286.44	4.57	4.25	-60.62	460.79	-818.39	939.30	930.48	8.82	106.551	
1,400.00	1,400.00	1,401.13	1,390.99	4.93	4.62	-60.60	461.70	-819.39	940.56	931.01	9.55	98.536	
1,500.00	1,500.00	1,532.39	1,522.24	5.29	5.08	-60.54	462.30	-818.28	940.11	929.75	10.36	90.747	
1,600.00	1,599.98	1,673.30	1,662.93	5.64	5.56	44.88	462.24	-810.72	934.12	922.94	11.18	83.583	
1,700.00	1,699.84	1,810.91	1,799.82	5.97	6.04	45.79	461.80	-796.71	921.40	909.44	11.96	77.051	
1,800.00	1,799.45	1,916.10	1,904.09	6.32	6.41	46.91	461.67	-782.88	904.02	891.36	12.66	71.419	
1,900.00	1,898.76	2,016.36	2,003.43	6.67	6.77	48.09	461.62	-769.32	884.54	871.19	13.35	66.260	
2,000.00	1,998.01	2,128.82	2,114.63	7.03	7.17	49.39	461.66	-752.57	864.01	849.94	14.07	61.413	
2,100.00	2,097.27	2,231.56	2,215.87	7.39	7.53	50.74	461.93	-735.09	842.19	827.42	14.77	57.006	
2,200.00	2,196.52	2,326.93	2,309.80	7.76	7.88	52.08	462.29	-718.57	820.64	805.17	15.47	53.038	
2,300.00	2,295.78	2,422.21	2,403.62	8.14	8.22	53.50	462.93	-701.95	799.63	783.46	16.18	49.426	
2,400.00	2,395.03	2,516.59	2,496.50	8.51	8.56	55.02	464.00	-685.26	779.24	762.35	16.89	46.136	
2,500.00	2,494.29	2,621.01	2,599.25	8.89	8.94	56.77	464.82	-666.65	759.13	741.51	17.62	43.081	
2,600.00	2,593.54	2,734.45	2,710.63	9.27	9.36	58.75	463.87	-645.17	737.82	719.46	18.36	40.185	
2,700.00	2,692.80	2,830.96	2,805.18	9.66	9.71	52.21	462.29	-625.90	715.59	696.49	19.09	37.483	
2,800.00	2,792.07	2,928.10	2,900.14	10.04	10.07	40.59	461.35	-605.46	691.50	671.68	19.83	34.880	
2,900.00	2,891.33	3,028.07	2,997.50	10.43	10.44	42.72	461.11	-582.79	666.70	646.14	20.56	32.425	
3,000.00	2,990.58	3,127.93	3,094.59	10.82	10.82	45.03	460.31	-559.46	641.97	620.66	21.30	30.136	
3,100.00	3,089.84	3,229.73	3,193.61	11.21	11.20	47.46	457.81	-535.93	617.14	595.10	22.05	27.995	
3,200.00	3,189.09	3,330.96	3,292.11	11.60	11.58	49.91	453.16	-513.06	591.98	569.20	22.79	25.979	
3,300.00	3,288.35	3,429.01	3,387.98	11.99	11.94	52.02	445.28	-494.10	566.83	543.30	23.53	24.091	
3,400.00	3,387.60	3,521.27	3,478.18	12.38	12.28	54.16	437.51	-476.39	542.23	517.94	24.29	22.326	
3,500.00	3,486.86	3,608.55	3,563.86	12.78	12.61	56.17	430.18	-461.44	519.45	494.40	25.06	20.732	
3,600.00	3,586.11	3,694.74	3,648.91	13.17	12.92	58.05	423.18	-449.35	499.11	473.28	25.82	19.327	
3,700.00	3,685.37	3,781.63	3,734.96	13.57	13.24	59.94	417.19	-438.94	481.41	454.82	26.59	18.105	
3,800.00	3,784.62	3,871.94	3,824.61	13.97	13.56	61.95	412.05	-429.32	465.98	438.63	27.35	17.038	
3,900.00	3,883.88	3,960.16	3,912.22	14.36	13.88	64.15	408.83	-419.54	452.98	424.87	28.11	16.115	
4,000.00	3,983.13	4,052.08	4,003.33	14.76	14.22	66.87	407.63	-407.42	442.43	413.55	28.88	15.322	
4,100.00	4,082.39	4,147.41	4,097.70	15.16	14.58	69.97	407.40	-393.91	433.85	404.20	29.65	14.633	
4,200.00	4,181.64	4,239.00	4,188.42	15.56	14.91	73.00	407.53	-381.34	427.16	396.75	30.41	14.048	
4,300.00	4,280.90	4,334.00	4,282.44	15.96	15.26	76.31	408.71	-367.83	422.91	391.74	31.17	13.568	
4,389.89	4,370.11	4,413.05	4,360.51	16.32	15.56	79.23	410.86	-355.65	421.62	389.80	31.82	13.250	CC
4,400.00	4,380.15	4,422.12	4,369.47	16.36	15.59	79.57	411.18	-354.20	421.63	389.74	31.89	13.220	
4,500.00	4,479.40	4,525.64	4,471.55	16.76	15.97	83.54	414.05	-337.25	422.14	389.45	32.69	12.914	ES
4,600.00	4,578.66	4,626.54	4,571.07	17.16	16.35	87.41	415.17	-320.66	422.93	389.46	33.46	12.638	
4,700.00	4,677.91	4,719.49	4,662.95	17.56	16.69	90.78	416.24	-306.65	425.46	391.27	34.19	12.445	
4,800.00	4,777.17	4,815.14	4,757.76	17.96	17.05	93.92	418.10	-294.21	430.02	395.11	34.91	12.317	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Fed Com 803H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 144-MWD+IFR1+MS

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,909.79	4,851.80	18.36	17.39	96.70	420.74	-283.81	436.29	400.66	35.63	12.247	
5,000.00	4,975.68	5,003.40	4,944.90	18.76	17.73	99.18	424.41	-274.78	444.32	408.00	36.32	12.233	SF
5,100.00	5,074.93	5,096.47	5,037.26	19.17	18.07	101.77	428.37	-263.99	454.21	417.20	37.00	12.275	
5,200.00	5,174.19	5,191.33	5,130.98	19.57	18.42	104.66	432.02	-249.85	465.94	428.25	37.69	12.362	
5,300.00	5,273.44	5,292.22	5,230.08	19.97	18.80	108.11	433.51	-231.02	478.42	439.99	38.43	12.450	
5,400.00	5,372.70	5,385.49	5,321.41	20.37	19.15	111.35	433.85	-212.12	492.31	453.23	39.08	12.597	
5,500.00	5,471.95	5,478.92	5,412.78	20.78	19.51	114.46	434.41	-192.62	508.33	468.60	39.73	12.794	
5,600.00	5,571.21	5,581.92	5,513.57	21.18	19.90	117.73	433.90	-171.41	524.88	484.41	40.47	12.968	
5,700.00	5,670.46	5,679.99	5,609.47	21.58	20.27	120.74	432.23	-150.96	542.13	500.97	41.16	13.170	
5,800.00	5,769.72	5,779.97	5,706.76	21.99	20.65	123.94	427.60	-128.43	559.77	517.91	41.86	13.372	
5,900.00	5,868.97	5,876.77	5,801.13	22.39	21.02	126.81	423.04	-107.37	578.38	535.85	42.53	13.600	
6,000.00	5,968.23	5,974.67	5,896.95	22.79	21.40	129.37	419.23	-87.64	597.72	554.51	43.21	13.832	
6,100.00	6,067.48	6,069.44	5,989.92	23.20	21.76	131.59	416.14	-69.55	617.74	573.87	43.87	14.081	
6,200.00	6,166.74	6,160.52	6,079.26	23.60	22.10	133.58	413.60	-51.99	639.08	594.59	44.49	14.364	
6,300.00	6,265.99	6,255.00	6,171.87	24.01	22.46	135.52	411.31	-33.44	661.71	616.55	45.15	14.655	
6,400.00	6,365.25	6,356.26	6,271.13	24.41	22.85	137.50	408.10	-13.72	684.50	638.62	45.88	14.919	
6,500.00	6,464.50	6,451.29	6,364.04	24.82	23.21	139.43	402.68	5.51	707.30	660.76	46.54	15.197	
6,600.00	6,563.76	6,539.14	6,449.74	25.22	23.55	141.16	397.44	24.07	731.45	684.32	47.13	15.519	
6,700.00	6,663.01	6,630.96	6,539.19	25.63	23.90	142.87	392.30	44.14	757.11	709.34	47.77	15.850	
6,800.00	6,762.27	6,737.59	6,643.28	26.03	24.31	144.68	386.50	66.53	782.78	734.22	48.56	16.119	
6,900.00	6,861.52	6,858.71	6,761.70	26.44	24.77	146.72	376.92	90.08	806.68	757.20	49.47	16.305	
7,000.00	6,960.78	6,989.57	6,890.45	26.84	25.26	148.71	365.10	110.23	827.06	776.64	50.41	16.405	
7,100.00	7,060.03	7,087.01	6,986.58	27.25	25.61	150.06	356.11	123.28	846.16	795.06	51.10	16.558	
7,200.00	7,159.29	7,184.73	7,083.13	27.65	25.97	151.32	347.48	135.70	865.23	813.43	51.80	16.705	
7,300.00	7,258.54	7,267.61	7,164.98	28.06	26.28	152.33	340.74	146.86	885.60	833.21	52.39	16.905	
7,400.00	7,357.80	7,352.54	7,248.87	28.46	26.59	153.24	335.44	158.99	907.65	854.66	52.99	17.129	
7,500.00	7,457.05	7,454.99	7,350.20	28.87	26.97	154.18	330.78	173.39	930.29	876.55	53.74	17.312	
7,600.00	7,556.31	7,566.03	7,460.36	29.27	27.38	155.00	327.43	186.85	951.75	897.21	54.55	17.449	
7,700.00	7,655.56	7,657.89	7,551.61	29.68	27.72	155.59	325.61	197.27	972.96	917.74	55.21	17.622	
7,800.00	7,754.82	7,740.14	7,633.22	30.08	28.02	156.07	324.63	207.43	995.43	939.62	55.81	17.838	
7,900.00	7,854.07	7,825.08	7,717.38	30.49	28.34	156.52	324.33	218.92	1,019.29	962.88	56.42	18.068	
8,000.00	7,953.33	7,928.69	7,820.04	30.90	28.72	156.99	325.08	232.89	1,043.50	986.32	57.19	18.248	
8,100.00	8,052.58	8,036.44	7,926.99	31.30	29.12	157.39	326.65	245.87	1,066.57	1,008.58	57.99	18.394	
8,200.00	8,151.84	8,123.84	8,013.73	31.71	29.44	157.66	328.75	256.44	1,089.97	1,031.35	58.62	18.593	
8,300.00	8,251.09	8,215.26	8,104.38	32.11	29.77	157.91	331.33	267.90	1,113.95	1,054.66	59.29	18.788	
8,400.00	8,350.35	8,298.43	8,186.75	32.52	30.08	158.17	333.31	279.25	1,138.88	1,078.99	59.89	19.016	
8,500.00	8,449.60	8,396.28	8,283.57	32.93	30.44	158.47	335.37	293.27	1,164.41	1,103.80	60.62	19.209	
8,600.00	8,548.86	8,530.68	8,416.85	33.33	30.94	158.78	339.52	310.01	1,188.50	1,126.87	61.63	19.284	
8,700.00	8,648.11	8,666.95	8,552.50	33.74	31.43	159.03	343.57	322.15	1,209.09	1,146.49	62.60	19.314	
8,800.00	8,747.37	8,903.24	8,788.52	34.15	32.22	159.70	340.22	325.02	1,219.40	1,155.63	63.77	19.123	
8,900.00	8,846.62	8,972.61	8,857.88	34.55	32.43	159.85	339.59	323.86	1,228.92	1,164.53	64.39	19.085	
9,000.00	8,945.88	9,071.61	8,956.87	34.96	32.75	160.09	338.60	323.26	1,239.56	1,174.49	65.07	19.049	
9,100.00	9,045.13	9,178.30	9,063.55	35.36	33.08	160.35	337.08	322.28	1,249.82	1,184.05	65.77	19.003	
9,200.00	9,144.39	9,279.18	9,164.40	35.77	33.41	160.60	335.30	321.03	1,259.72	1,193.27	66.45	18.957	
9,300.00	9,243.64	9,376.40	9,261.59	36.18	33.72	160.86	333.34	319.98	1,269.75	1,202.62	67.13	18.915	
9,400.00	9,342.90	9,472.94	9,358.12	36.58	34.03	161.11	331.34	319.12	1,279.96	1,212.15	67.81	18.876	
9,500.00	9,442.15	9,569.65	9,454.80	36.99	34.34	161.35	329.55	318.45	1,290.45	1,221.96	68.49	18.842	
9,600.00	9,541.40	9,669.06	9,554.19	37.40	34.66	161.60	327.74	317.86	1,301.06	1,231.89	69.18	18.808	
9,700.00	9,640.66	9,766.67	9,651.79	37.80	34.98	161.82	326.30	317.20	1,311.68	1,241.82	69.86	18.775	
9,800.00	9,739.91	9,861.21	9,746.32	38.21	35.29	162.03	324.88	316.83	1,322.60	1,252.06	70.54	18.750	
9,900.00	9,839.36	9,948.45	9,833.55	38.61	35.58	162.28	323.34	317.00	1,332.45	1,261.25	71.20	18.714	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Fed Com 803H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 144-MWD+IFR1+MS

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,939.11	10,031.95	9,917.02	38.98	35.87	162.49	321.44	318.28	1,340.20	1,268.35	71.84	18.655	
10,100.00	10,039.04	10,122.60	10,007.61	39.33	36.18	162.68	319.29	320.68	1,345.69	1,273.19	72.51	18.560	
10,200.00	10,139.04	10,224.03	10,109.00	39.65	36.54	79.32	317.85	323.28	1,348.39	1,275.19	73.20	18.421	
10,300.00	10,239.04	10,325.32	10,210.25	39.97	36.89	79.39	316.79	325.75	1,350.59	1,276.70	73.89	18.278	
10,400.00	10,339.04	10,422.37	10,307.27	40.28	37.23	79.40	316.77	327.88	1,352.74	1,278.17	74.57	18.141	
10,500.00	10,439.04	10,510.52	10,395.39	40.60	37.54	79.41	317.16	330.22	1,355.44	1,280.24	75.21	18.023	
10,600.00	10,539.04	10,623.59	10,508.40	40.92	37.94	79.40	317.96	333.86	1,358.81	1,282.86	75.95	17.891	
10,700.00	10,639.04	10,725.91	10,610.71	41.24	38.30	79.39	318.61	335.59	1,360.59	1,283.94	76.65	17.751	
10,800.00	10,739.04	10,814.93	10,699.69	41.56	38.61	79.37	319.39	337.70	1,363.07	1,285.78	77.29	17.636	
10,900.00	10,839.04	10,949.25	10,833.97	41.89	39.08	79.31	321.29	340.12	1,365.24	1,287.14	78.11	17.480	
11,000.00	10,938.95	11,084.04	10,968.67	42.20	39.53	-100.16	317.00	339.89	1,365.00	1,286.14	78.86	17.309	
11,041.50	10,980.09	11,144.76	11,029.22	42.32	39.73	-100.34	312.58	338.94	1,364.77	1,285.61	79.16	17.241	
11,100.00	11,037.16	11,181.53	11,065.90	42.50	39.86	-100.51	310.00	338.60	1,365.65	1,286.15	79.50	17.177	
11,200.00	11,130.73	11,272.13	11,156.34	42.77	40.15	-101.13	304.82	338.11	1,370.83	1,290.72	80.11	17.111	
11,300.00	11,216.80	11,362.62	11,246.81	43.01	40.45	-102.04	303.73	336.39	1,380.22	1,299.52	80.69	17.105	
11,400.00	11,292.78	11,437.37	11,321.53	43.23	40.69	-102.53	304.02	334.66	1,395.52	1,314.32	81.20	17.185	
11,500.00	11,356.34	11,500.08	11,384.23	43.41	40.89	-102.26	304.15	333.29	1,417.98	1,336.33	81.65	17.367	
11,600.00	11,405.56	11,544.83	11,428.97	43.59	41.03	-100.73	304.11	332.44	1,448.34	1,366.35	82.00	17.663	
11,700.00	11,438.94	11,575.17	11,459.31	43.79	41.13	-97.82	304.03	331.97	1,486.71	1,404.46	82.25	18.075	
11,800.00	11,455.47	11,590.43	11,474.57	44.02	41.18	-93.36	303.98	331.78	1,532.31	1,449.91	82.40	18.596	
11,900.00	11,458.23	11,593.25	11,477.39	44.31	41.19	-91.42	303.97	331.74	1,583.67	1,501.22	82.46	19.206	
12,000.00	11,459.87	11,598.00	11,482.14	44.67	41.20	-91.62	303.96	331.68	1,639.57	1,557.05	82.53	19.867	
12,100.00	11,461.51	11,598.00	11,482.14	45.08	41.20	-91.62	303.96	331.68	1,699.51	1,616.94	82.58	20.580	
12,200.00	11,463.15	11,598.00	11,482.14	45.56	41.20	-91.62	303.96	331.68	1,763.09	1,680.46	82.63	21.337	
12,300.00	11,464.79	11,598.00	11,482.14	46.10	41.20	-91.62	303.96	331.68	1,829.93	1,747.25	82.68	22.131	
12,400.00	11,466.43	11,598.00	11,482.14	46.69	41.20	-91.62	303.96	331.68	1,899.68	1,816.95	82.74	22.961	
12,500.00	11,468.07	11,598.00	11,482.14	47.33	41.20	-91.62	303.96	331.68	1,972.04	1,889.25	82.79	23.821	
12,600.00	11,469.72	11,598.00	11,482.14	48.02	41.20	-91.62	303.96	331.68	2,046.73	1,963.89	82.84	24.708	
12,700.00	11,471.36	11,606.86	11,491.00	48.77	41.23	-92.00	303.92	331.59	2,123.48	2,040.56	82.92	25.610	
12,800.00	11,473.00	11,608.49	11,492.63	49.55	41.24	-92.07	303.92	331.57	2,202.10	2,119.13	82.97	26.541	
12,900.00	11,474.64	11,610.12	11,494.26	50.38	41.24	-92.14	303.91	331.56	2,282.40	2,199.38	83.02	27.492	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Federal 802H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 144-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	9.37	-0.63	0.00	0.01	-61.58	454.45	-839.62	954.72				
100.00	100.00	103.03	93.03	0.27	0.15	-61.58	454.51	-840.01	955.12	954.70	0.42	2,297.483	
200.00	200.00	193.50	183.49	0.63	0.38	-61.62	454.48	-841.21	956.27	955.26	1.01	946.274	
300.00	300.00	296.27	286.23	0.99	0.75	-61.71	454.04	-843.68	958.20	956.46	1.73	552.745	
400.00	400.00	417.30	407.25	1.34	1.16	-61.67	454.80	-843.45	958.29	955.78	2.51	382.001	
440.97	440.97	451.02	440.97	1.49	1.28	-61.66	454.81	-843.30	958.13	955.36	2.77	345.630	
500.00	500.00	501.23	491.18	1.70	1.45	-61.67	454.88	-843.58	958.45	955.29	3.16	303.503	
600.00	600.00	624.68	614.62	2.06	1.88	-61.65	454.80	-842.78	957.77	953.83	3.94	242.876	
700.00	700.00	723.44	713.37	2.42	2.22	-61.65	454.09	-841.43	956.23	951.59	4.64	205.985	
800.00	800.00	818.68	808.60	2.78	2.55	-61.69	452.98	-840.80	955.09	949.76	5.33	179.096	
900.00	900.00	914.43	904.34	3.14	2.89	-61.73	451.96	-840.61	954.41	948.39	6.03	158.338	
976.72	976.72	986.80	976.72	3.41	3.15	-61.76	451.56	-840.60	954.21	947.65	6.56	145.508	
1,000.00	1,000.00	1,007.59	997.50	3.50	3.22	-61.76	451.48	-840.67	954.24	947.52	6.71	142.120	
1,100.00	1,100.00	1,101.02	1,090.93	3.85	3.55	-61.81	451.12	-841.67	954.99	947.59	7.40	129.031	
1,200.00	1,200.00	1,199.61	1,189.50	4.21	3.90	-61.88	450.52	-843.03	955.91	947.81	8.11	117.916	
1,300.00	1,300.00	1,300.68	1,290.57	4.57	4.25	-61.93	450.32	-844.55	957.15	948.33	8.82	108.503	
1,400.00	1,400.00	1,397.70	1,387.58	4.93	4.59	-61.97	450.29	-845.82	958.29	948.77	9.52	100.641	
1,500.00	1,500.00	1,526.47	1,516.34	5.29	5.05	-62.02	449.67	-846.34	958.52	948.19	10.33	92.774	
1,600.00	1,599.98	1,693.55	1,683.14	5.64	5.63	43.29	446.98	-837.81	951.96	940.73	11.23	84.797	
1,700.00	1,699.84	1,821.66	1,810.38	5.97	6.07	44.13	445.62	-823.11	937.48	925.50	11.98	78.262	
1,800.00	1,799.45	1,921.02	1,908.88	6.32	6.41	45.12	444.76	-810.03	919.37	906.70	12.66	72.600	
1,900.00	1,898.76	2,018.59	2,005.60	6.67	6.75	46.16	443.95	-797.25	899.39	886.04	13.35	67.386	
2,000.00	1,998.01	2,123.03	2,109.11	7.03	7.12	47.13	442.16	-783.52	878.86	864.82	14.05	62.557	
2,100.00	2,097.27	2,219.86	2,205.03	7.39	7.46	48.04	439.64	-770.51	857.86	843.12	14.74	58.194	
2,200.00	2,196.52	2,309.95	2,294.37	7.76	7.78	48.87	437.02	-759.21	837.64	822.22	15.43	54.297	
2,300.00	2,295.78	2,403.77	2,387.52	8.14	8.12	49.75	434.23	-748.32	818.37	802.25	16.13	50.750	
2,400.00	2,395.03	2,500.46	2,483.52	8.51	8.46	50.68	431.32	-737.25	799.42	782.58	16.83	47.486	
2,500.00	2,494.29	2,600.52	2,582.91	8.89	8.82	51.62	427.51	-726.32	780.65	763.10	17.55	44.472	
2,600.00	2,593.54	2,700.98	2,682.65	9.27	9.18	52.62	423.39	-714.94	761.59	743.32	18.28	41.669	
2,700.00	2,692.80	2,794.30	2,775.29	9.66	9.52	45.23	419.34	-704.52	742.46	723.47	18.99	39.091	
2,800.00	2,792.07	2,895.03	2,875.37	10.04	9.88	32.53	414.20	-694.31	721.85	702.13	19.72	36.607	
2,900.00	2,891.33	2,994.92	2,974.53	10.43	10.25	33.28	408.73	-683.60	699.92	679.48	20.44	34.243	
3,000.00	2,990.58	3,080.49	3,059.54	10.82	10.55	33.91	403.88	-675.18	678.66	657.51	21.15	32.092	
3,100.00	3,089.84	3,163.13	3,141.85	11.21	10.85	34.42	399.17	-669.37	659.57	637.73	21.85	30.188	
3,200.00	3,189.09	3,258.79	3,237.25	11.60	11.20	34.96	394.16	-664.55	642.33	619.76	22.57	28.460	
3,300.00	3,288.35	3,365.78	3,343.88	11.99	11.58	35.75	389.21	-657.26	624.25	600.94	23.31	26.781	
3,400.00	3,387.60	3,468.76	3,446.37	12.38	11.95	36.72	384.75	-648.27	605.08	581.04	24.04	25.166	
3,500.00	3,486.86	3,560.19	3,537.37	12.78	12.28	37.55	380.20	-640.90	586.12	561.35	24.77	23.661	
3,600.00	3,586.11	3,652.54	3,629.42	13.17	12.62	38.21	374.78	-635.76	568.44	542.94	25.50	22.293	
3,700.00	3,685.37	3,747.05	3,723.69	13.57	12.96	38.94	369.82	-631.02	551.66	525.43	26.23	21.033	
3,800.00	3,784.62	3,840.59	3,817.03	13.97	13.29	39.72	365.50	-626.70	535.71	508.75	26.96	19.871	
3,900.00	3,883.88	3,936.66	3,912.93	14.36	13.64	40.61	361.90	-622.46	520.63	492.94	27.70	18.798	
4,000.00	3,983.13	4,042.34	4,018.33	14.76	14.02	42.00	359.73	-615.26	505.35	476.90	28.45	17.764	
4,100.00	4,082.39	4,151.91	4,127.14	15.16	14.42	44.14	359.06	-602.47	488.30	459.09	29.20	16.720	
4,200.00	4,181.64	4,248.83	4,223.08	15.56	14.77	46.45	359.02	-588.70	470.73	440.77	29.97	15.708	
4,300.00	4,280.90	4,346.52	4,319.76	15.96	15.12	48.97	358.96	-574.66	453.88	423.14	30.74	14.767	
4,400.00	4,380.15	4,446.31	4,418.58	16.36	15.48	51.57	357.71	-560.93	437.31	405.80	31.51	13.879	
4,500.00	4,479.40	4,541.11	4,512.77	16.76	15.83	53.78	354.64	-550.66	421.47	389.18	32.28	13.055	
4,600.00	4,578.66	4,632.25	4,603.62	17.16	16.16	55.50	350.66	-544.71	407.36	374.30	33.05	12.324	
4,700.00	4,677.91	4,723.12	4,694.36	17.56	16.48	57.04	347.25	-541.19	395.42	361.61	33.81	11.695	
4,800.00	4,777.17	4,815.13	4,786.31	17.96	16.81	58.61	345.04	-538.81	385.61	351.04	34.57	11.156	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Federal 802H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 144-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,906.94	4,878.11	18.36	17.14	60.16	344.24	-537.73	378.07	342.76	35.30	10.709	
5,000.00	4,975.68	5,003.63	4,974.80	18.76	17.47	61.78	344.51	-537.52	372.28	336.23	36.05	10.326	
5,100.00	5,074.93	5,114.79	5,085.82	19.17	17.86	64.39	344.70	-532.55	365.31	328.45	36.86	9.911	
5,200.00	5,174.19	5,223.59	5,193.94	19.57	18.25	68.08	343.59	-520.55	356.00	318.34	37.66	9.454	
5,300.00	5,273.44	5,329.59	5,298.85	19.97	18.64	72.27	340.18	-505.80	345.29	306.85	38.44	8.982	
5,400.00	5,372.70	5,435.20	5,403.32	20.37	19.03	76.52	333.83	-491.74	333.71	294.50	39.21	8.510	
5,500.00	5,471.95	5,534.08	5,501.09	20.78	19.39	80.62	325.82	-479.32	321.87	281.87	40.00	8.047	
5,600.00	5,571.21	5,628.96	5,595.07	21.18	19.74	84.56	318.17	-468.81	311.83	271.04	40.79	7.645	
5,700.00	5,670.46	5,725.41	5,690.86	21.58	20.09	88.39	310.94	-460.23	303.88	262.32	41.56	7.312	
5,800.00	5,769.72	5,820.70	5,785.55	21.99	20.44	92.32	304.20	-451.87	297.85	255.53	42.31	7.039	
5,900.00	5,868.97	5,916.78	5,881.10	22.39	20.79	96.32	298.13	-443.78	294.05	250.99	43.05	6.830	
6,000.00	5,968.23	6,013.03	5,976.83	22.79	21.14	100.38	292.49	-435.64	292.26	248.49	43.77	6.677	
6,045.55	6,013.44	6,057.45	6,021.01	22.98	21.30	102.28	289.98	-431.78	292.10	248.01	44.09	6.625	CC
6,100.00	6,067.48	6,110.87	6,074.14	23.20	21.50	104.58	286.91	-427.10	292.32	247.85	44.47	6.573	ES
6,200.00	6,166.74	6,207.47	6,170.18	23.60	21.85	108.75	281.35	-418.43	294.07	248.92	45.15	6.512	
6,300.00	6,265.99	6,305.37	6,267.52	24.01	22.21	112.93	275.77	-409.42	297.61	251.79	45.82	6.495	SF
6,400.00	6,365.25	6,402.31	6,363.87	24.41	22.56	116.98	270.16	-400.41	302.75	256.27	46.48	6.514	
6,500.00	6,464.50	6,499.22	6,460.16	24.82	22.92	120.94	264.51	-391.05	309.61	262.49	47.12	6.571	
6,600.00	6,563.76	6,597.98	6,558.29	25.22	23.28	124.79	258.68	-381.55	317.87	270.11	47.76	6.655	
6,700.00	6,663.01	6,702.84	6,662.72	25.63	23.66	128.29	252.83	-374.14	325.95	277.50	48.45	6.728	
6,800.00	6,762.27	6,800.74	6,760.34	26.03	24.02	131.14	247.81	-368.90	334.13	285.03	49.10	6.805	
6,900.00	6,861.52	6,899.59	6,858.98	26.44	24.37	133.74	243.34	-364.16	343.08	293.31	49.77	6.894	
7,000.00	6,960.78	6,998.88	6,958.08	26.84	24.73	136.17	238.97	-359.80	352.45	302.02	50.43	6.989	
7,100.00	7,060.03	7,099.68	7,058.69	27.25	25.09	138.47	234.57	-355.66	362.20	311.09	51.11	7.087	
7,200.00	7,159.29	7,204.93	7,163.83	27.65	25.47	140.55	230.18	-353.30	371.04	319.23	51.81	7.162	
7,300.00	7,258.54	7,305.97	7,264.80	28.06	25.82	142.26	226.31	-352.89	378.92	326.42	52.49	7.219	
7,400.00	7,357.80	7,402.58	7,361.38	28.46	26.15	143.59	224.16	-353.13	387.33	334.17	53.16	7.286	
7,500.00	7,457.05	7,499.17	7,457.96	28.87	26.49	144.71	223.26	-353.22	396.70	342.86	53.83	7.369	
7,600.00	7,556.31	7,596.46	7,555.25	29.27	26.83	145.78	222.66	-352.87	406.76	352.24	54.52	7.461	
7,700.00	7,655.56	7,693.72	7,652.50	29.68	27.17	146.78	222.37	-352.19	417.41	362.21	55.20	7.562	
7,800.00	7,754.82	7,790.91	7,749.69	30.08	27.52	147.73	222.26	-351.08	428.64	372.76	55.89	7.670	
7,900.00	7,854.07	7,888.35	7,847.12	30.49	27.86	148.63	222.38	-349.64	440.41	383.84	56.57	7.785	
8,000.00	7,953.33	7,986.16	7,944.91	30.90	28.20	149.44	222.90	-348.02	452.60	395.34	57.26	7.904	
8,100.00	8,052.58	8,085.94	8,044.68	31.30	28.55	150.24	223.42	-346.26	464.98	407.01	57.96	8.022	
8,200.00	8,151.84	8,186.01	8,144.74	31.71	28.91	151.06	223.35	-344.51	477.19	418.53	58.67	8.134	
8,300.00	8,251.09	8,283.01	8,241.71	32.11	29.25	151.85	223.11	-342.68	489.57	430.21	59.36	8.248	
8,400.00	8,350.35	8,378.63	8,337.31	32.52	29.59	152.57	223.16	-340.40	502.60	442.57	60.03	8.372	
8,500.00	8,449.60	8,477.88	8,436.53	32.93	29.95	153.27	223.43	-337.74	516.05	455.32	60.74	8.497	
8,600.00	8,548.86	8,590.30	8,548.92	33.33	30.34	154.09	222.57	-336.01	528.18	466.65	61.52	8.585	
8,700.00	8,648.11	8,693.74	8,652.33	33.74	30.70	154.92	220.31	-335.73	538.74	476.50	62.24	8.656	
8,800.00	8,747.37	8,794.60	8,753.16	34.15	31.05	155.72	217.67	-335.86	548.90	485.96	62.94	8.721	
8,900.00	8,846.62	8,896.93	8,855.45	34.55	31.41	156.51	214.92	-336.30	558.86	495.21	63.65	8.781	
9,000.00	8,945.88	9,000.01	8,958.45	34.96	31.76	157.36	211.00	-337.34	568.04	503.69	64.35	8.827	
9,100.00	9,045.13	9,103.76	9,062.11	35.36	32.12	158.21	206.85	-338.76	576.95	511.90	65.05	8.869	
9,200.00	9,144.39	9,207.25	9,165.53	35.77	32.46	158.66	206.03	-342.21	584.88	519.13	65.75	8.895	
9,300.00	9,243.64	9,308.32	9,266.47	36.18	32.79	158.75	208.51	-346.75	592.53	526.08	66.45	8.918	
9,400.00	9,342.90	9,408.58	9,366.58	36.58	33.11	158.84	210.86	-351.42	599.99	532.86	67.14	8.937	
9,500.00	9,442.15	9,509.97	9,467.87	36.99	33.44	159.05	211.95	-355.97	607.32	539.49	67.83	8.954	
9,600.00	9,541.40	9,613.85	9,571.63	37.40	33.78	159.45	211.02	-360.62	614.17	545.65	68.52	8.963	
9,700.00	9,640.66	9,713.44	9,671.10	37.80	34.11	159.99	208.38	-365.03	620.70	551.49	69.21	8.968	
9,800.00	9,739.91	9,805.00	9,762.54	38.21	34.42	160.50	205.69	-368.75	627.59	557.70	69.89	8.980	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOE Federal 802H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 144-MWD+IFR1+MS — **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
9,900.00	9,839.36	9,900.00	9,857.48	38.61	34.74	160.92	204.14	-371.46	634.36	563.80	70.56	8.990	
10,000.00	9,939.11	9,979.71	9,937.19	38.98	35.01	161.12	203.99	-372.09	640.09	568.92	71.17	8.994	
10,100.00	10,039.04	10,071.18	10,028.65	39.33	35.33	161.22	204.43	-371.20	644.47	572.65	71.82	8.974	
10,200.00	10,139.04	10,164.46	10,121.91	39.65	35.66	77.72	205.62	-369.42	647.03	574.57	72.46	8.930	
10,300.00	10,239.04	10,268.67	10,226.08	39.97	36.02	77.68	206.69	-367.01	649.51	576.33	73.18	8.876	
10,400.00	10,339.04	10,364.84	10,322.22	40.28	36.36	77.71	206.73	-364.84	651.73	577.89	73.84	8.826	
10,500.00	10,439.04	10,467.74	10,425.10	40.60	36.73	77.73	207.09	-362.39	654.13	579.57	74.55	8.774	
10,600.00	10,539.04	10,570.45	10,527.78	40.92	37.08	77.58	209.08	-360.96	655.91	580.65	75.26	8.715	
10,700.00	10,639.04	10,657.79	10,615.07	41.24	37.38	77.47	210.83	-358.93	658.60	582.75	75.85	8.683	
10,800.00	10,739.04	10,753.35	10,710.55	41.56	37.72	77.41	212.38	-355.30	662.65	586.15	76.50	8.662	
10,900.00	10,839.04	10,874.35	10,831.50	41.89	38.14	77.27	214.57	-352.85	664.95	587.60	77.35	8.597	
11,000.00	10,938.95	10,970.99	10,928.11	42.20	38.47	-102.45	216.79	-352.26	666.63	588.62	78.01	8.545	
11,100.00	11,037.16	11,057.80	11,014.89	42.50	38.77	-103.20	218.32	-350.37	673.32	594.71	78.61	8.565	
11,200.00	11,130.73	11,153.03	11,110.05	42.77	39.11	-104.72	219.09	-346.88	686.23	606.93	79.30	8.654	
11,300.00	11,216.80	11,267.64	11,224.64	43.01	39.51	-107.61	218.24	-345.82	703.13	623.02	80.11	8.777	
11,400.00	11,292.78	11,354.04	11,311.01	43.23	39.81	-109.54	216.38	-346.88	727.16	646.43	80.72	9.008	
11,500.00	11,356.34	11,420.18	11,377.13	43.41	40.03	-109.99	215.53	-348.44	761.83	680.60	81.23	9.379	
11,600.00	11,405.56	11,468.38	11,425.31	43.59	40.19	-108.28	215.22	-349.74	808.47	726.85	81.61	9.906	
11,700.00	11,438.94	11,500.83	11,457.75	43.79	40.30	-103.89	215.10	-350.61	866.51	784.64	81.87	10.584	
11,800.00	11,455.47	11,516.90	11,473.81	44.02	40.35	-96.22	215.06	-351.03	933.95	851.95	82.00	11.390	
11,900.00	11,458.23	11,519.82	11,476.74	44.31	40.36	-92.73	215.05	-351.11	1,007.87	925.85	82.03	12.287	
12,000.00	11,459.87	11,521.69	11,478.60	44.67	40.37	-92.90	215.04	-351.15	1,086.03	1,003.98	82.05	13.237	
12,100.00	11,461.51	11,523.57	11,480.48	45.08	40.38	-93.06	215.04	-351.20	1,167.51	1,085.46	82.06	14.228	
12,200.00	11,463.15	11,525.47	11,482.38	45.56	40.38	-93.23	215.03	-351.25	1,251.69	1,169.62	82.07	15.251	
12,300.00	11,464.79	11,527.38	11,484.29	46.10	40.39	-93.40	215.03	-351.29	1,338.04	1,255.95	82.08	16.301	
12,400.00	11,466.43	11,529.31	11,486.23	46.69	40.40	-93.57	215.02	-351.34	1,426.17	1,344.07	82.09	17.372	
12,500.00	11,468.07	11,531.27	11,488.17	47.33	40.40	-93.74	215.01	-351.38	1,515.77	1,433.66	82.11	18.461	
12,600.00	11,469.72	11,533.23	11,490.14	48.02	40.41	-93.91	215.00	-351.43	1,606.60	1,524.48	82.12	19.564	
12,700.00	11,471.36	11,535.22	11,492.13	48.77	40.42	-94.08	215.00	-351.48	1,698.46	1,616.32	82.14	20.679	
12,800.00	11,473.00	11,537.23	11,494.13	49.55	40.42	-94.26	214.99	-351.52	1,791.18	1,709.03	82.15	21.804	
12,900.00	11,474.64	11,539.25	11,496.16	50.38	40.43	-94.44	214.98	-351.57	1,884.65	1,802.48	82.17	22.937	
13,000.00	11,476.28	11,541.29	11,498.20	51.25	40.44	-94.62	214.97	-351.62	1,978.76	1,896.57	82.19	24.076	
13,100.00	11,477.92	11,543.35	11,500.26	52.16	40.44	-94.80	214.97	-351.66	2,073.41	1,991.21	82.21	25.222	
13,200.00	11,479.56	11,545.44	11,502.34	53.10	40.45	-94.98	214.96	-351.71	2,168.55	2,086.32	82.23	26.372	
13,300.00	11,481.20	11,547.54	11,504.44	54.08	40.46	-95.16	214.95	-351.76	2,264.10	2,181.84	82.25	27.526	
13,400.00	11,482.84	11,549.66	11,506.56	55.09	40.46	-95.35	214.94	-351.80	2,360.01	2,277.74	82.28	28.684	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOS Federal 801H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 23-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	10.00	0.00	0.00	0.00	-62.29	454.19	-864.61	976.65				
100.00	100.00	103.49	93.49	0.27	0.14	-62.27	454.54	-864.73	976.94	976.53	0.41	2,410.671	
200.00	200.00	196.05	186.04	0.63	0.39	-62.23	455.63	-865.25	977.99	976.97	1.02	960.073	
300.00	300.00	297.18	287.16	0.99	0.75	-62.23	456.28	-866.67	979.52	977.79	1.73	564.761	
400.00	400.00	412.50	402.46	1.34	1.15	-62.32	455.21	-867.86	980.00	977.51	2.49	393.218	
422.40	422.40	432.43	422.40	1.42	1.22	-62.33	455.03	-867.93	979.98	977.33	2.64	370.885	
500.00	500.00	503.44	493.39	1.70	1.47	-62.38	454.47	-868.57	980.31	977.14	3.17	309.373	
600.00	600.00	622.22	612.17	2.06	1.88	-62.37	454.29	-867.94	979.72	975.78	3.94	248.853	
700.00	700.00	715.83	705.77	2.42	2.20	-62.35	454.16	-866.83	978.62	974.00	4.62	211.940	
734.95	734.95	744.93	734.88	2.54	2.30	-62.35	454.17	-866.73	978.52	973.67	4.84	201.997	
800.00	800.00	802.78	792.72	2.78	2.50	-62.34	454.33	-866.99	978.85	973.57	5.28	185.395	
900.00	900.00	902.54	892.48	3.14	2.85	-62.35	454.49	-867.69	979.55	973.56	5.99	163.519	
1,000.00	1,000.00	997.35	987.28	3.50	3.19	-62.39	454.35	-868.83	980.55	973.86	6.68	146.687	
1,100.00	1,100.00	1,097.08	1,086.99	3.85	3.54	-62.45	454.28	-870.67	982.15	974.75	7.40	132.774	
1,200.00	1,200.00	1,207.52	1,197.43	4.21	3.94	-62.47	454.18	-871.33	982.60	974.45	8.15	120.593	
1,300.00	1,300.00	1,306.70	1,296.61	4.57	4.29	-62.50	453.87	-871.91	982.97	974.11	8.86	110.957	
1,400.00	1,400.00	1,406.20	1,396.11	4.93	4.64	-62.53	453.61	-872.46	983.34	973.77	9.57	102.733	
1,500.00	1,500.00	1,498.10	1,487.99	5.29	4.97	-62.63	452.43	-873.90	984.14	973.89	10.26	95.945	
1,600.00	1,599.98	1,593.36	1,583.14	5.64	5.31	42.20	449.45	-877.01	984.32	973.38	10.94	89.946	
1,700.00	1,699.84	1,685.93	1,675.50	5.97	5.64	42.07	445.12	-881.40	982.53	970.92	11.61	84.618	
1,800.00	1,799.45	1,780.08	1,769.30	6.32	5.98	41.99	439.45	-887.22	978.83	966.54	12.29	79.649	
1,900.00	1,898.76	1,879.88	1,868.70	6.67	6.34	41.98	433.20	-893.85	973.17	960.17	12.99	74.891	
2,000.00	1,998.01	1,982.84	1,971.27	7.03	6.71	41.98	427.07	-900.34	967.02	953.30	13.72	70.504	
2,100.00	2,097.27	2,089.23	2,077.28	7.39	7.09	41.99	420.68	-906.52	960.40	945.95	14.45	66.446	
2,200.00	2,196.52	2,196.67	2,184.29	7.76	7.48	41.95	412.98	-912.28	952.86	937.66	15.20	62.696	
2,300.00	2,295.78	2,299.61	2,286.85	8.14	7.85	41.93	405.72	-917.33	944.97	929.04	15.93	59.326	
2,400.00	2,395.03	2,405.63	2,392.54	8.51	8.23	41.95	398.59	-921.61	936.45	919.78	16.67	56.172	
2,500.00	2,494.29	2,500.65	2,487.33	8.89	8.57	42.02	392.82	-924.84	927.67	910.29	17.38	53.382	
2,600.00	2,593.54	2,584.11	2,570.62	9.27	8.87	42.12	388.77	-928.26	920.07	902.03	18.05	50.983	
2,700.00	2,692.80	2,666.67	2,652.97	9.66	9.17	34.00	385.58	-933.20	914.33	895.62	18.71	48.869	
2,800.00	2,792.07	2,759.99	2,745.99	10.04	9.51	20.63	382.49	-939.92	908.39	888.98	19.41	46.798	
2,900.00	2,891.33	2,866.15	2,851.87	10.43	9.89	20.55	379.62	-947.08	901.74	881.58	20.16	44.725	
3,000.00	2,990.58	2,976.74	2,962.26	10.82	10.29	20.53	377.10	-953.10	894.13	873.20	20.93	42.722	
3,100.00	3,089.84	3,089.62	3,075.00	11.21	10.70	20.51	373.80	-957.86	885.13	863.43	21.70	40.789	
3,200.00	3,189.09	3,195.15	3,180.41	11.60	11.08	20.48	369.98	-961.31	874.97	852.53	22.44	38.984	
3,300.00	3,288.35	3,295.53	3,280.62	11.99	11.44	20.39	365.36	-964.70	864.47	841.30	23.17	37.308	
3,400.00	3,387.60	3,410.77	3,395.67	12.38	11.85	20.27	359.35	-967.61	852.93	829.00	23.94	35.631	
3,500.00	3,486.86	3,510.59	3,495.32	12.78	12.21	20.18	353.82	-968.93	840.19	815.53	24.66	34.072	
3,600.00	3,586.11	3,592.52	3,576.98	13.17	12.50	19.96	347.98	-971.84	828.74	803.41	25.33	32.712	
3,700.00	3,685.37	3,673.00	3,657.04	13.57	12.79	19.64	341.70	-977.11	819.66	793.67	26.00	31.526	
3,800.00	3,784.62	3,763.92	3,747.41	13.97	13.13	19.25	335.05	-984.56	812.32	785.62	26.70	30.429	
3,900.00	3,883.88	3,862.00	3,844.93	14.36	13.48	18.85	328.55	-992.83	805.54	778.12	27.42	29.380	
4,000.00	3,983.13	3,956.00	3,938.41	14.76	13.83	18.52	323.11	-1,000.99	799.37	771.25	28.12	28.423	
4,100.00	4,082.39	4,051.00	4,032.93	15.16	14.17	18.23	318.67	-1,009.45	793.91	765.07	28.83	27.534	
4,200.00	4,181.64	4,150.52	4,132.02	15.56	14.53	18.02	315.24	-1,018.00	788.68	759.12	29.56	26.679	
4,300.00	4,280.90	4,261.22	4,242.41	15.96	14.93	17.92	312.74	-1,025.82	782.55	752.22	30.33	25.797	
4,400.00	4,380.15	4,360.64	4,341.67	16.36	15.29	17.96	311.83	-1,031.51	775.77	744.71	31.06	24.976	
4,500.00	4,479.40	4,450.19	4,431.08	16.76	15.60	18.12	312.68	-1,036.44	769.59	737.84	31.75	24.242	
4,600.00	4,578.66	4,530.73	4,511.38	17.16	15.89	18.28	314.45	-1,042.40	765.61	733.22	32.38	23.643	
4,700.00	4,677.91	4,625.01	4,605.25	17.56	16.22	18.53	317.77	-1,050.39	763.20	730.12	33.08	23.072	
4,800.00	4,777.17	4,722.81	4,702.60	17.96	16.56	18.85	322.20	-1,058.76	761.32	727.52	33.79	22.529	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOS Federal 801H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 23-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,822.62	4,801.93	18.36	16.91	19.18	326.76	-1,067.42	759.59	725.07	34.52	22.005	
5,000.00	4,975.68	4,920.90	4,899.72	18.76	17.26	19.43	330.52	-1,076.39	757.96	722.72	35.24	21.509	
5,100.00	5,074.93	5,023.97	5,002.23	19.17	17.63	19.55	332.66	-1,086.89	756.53	720.55	35.99	21.022	
5,200.00	5,174.19	5,138.96	5,116.35	19.57	18.04	19.16	328.16	-1,100.06	753.63	716.84	36.79	20.483	
5,300.00	5,273.44	5,243.86	5,220.16	19.97	18.43	18.47	319.56	-1,112.44	749.27	711.72	37.54	19.958	
5,400.00	5,372.70	5,355.70	5,330.88	20.37	18.84	17.72	309.88	-1,124.89	744.25	705.93	38.32	19.423	
5,500.00	5,471.95	5,474.89	5,449.21	20.78	19.27	17.02	299.68	-1,134.85	736.76	697.66	39.10	18.842	
5,600.00	5,571.21	5,570.94	5,544.61	21.18	19.62	16.45	291.17	-1,142.01	728.45	688.63	39.82	18.294	
5,700.00	5,670.46	5,671.03	5,643.99	21.58	19.99	15.81	282.15	-1,149.91	720.56	680.02	40.54	17.772	
5,800.00	5,769.72	5,799.10	5,771.18	21.99	20.45	14.98	269.70	-1,157.96	711.17	669.86	41.31	17.216	
5,900.00	5,868.97	5,910.53	5,881.84	22.39	20.85	14.19	256.97	-1,160.84	697.61	655.58	42.02	16.601	
6,000.00	5,968.23	6,009.76	5,980.36	22.79	21.21	13.45	245.33	-1,163.28	684.01	641.28	42.73	16.006	
6,100.00	6,067.48	6,109.40	6,079.33	23.20	21.56	12.71	233.99	-1,165.43	670.38	626.94	43.45	15.430	
6,200.00	6,166.74	6,204.73	6,174.12	23.60	21.90	12.05	224.04	-1,167.34	657.01	612.85	44.16	14.878	
6,300.00	6,265.99	6,305.87	6,274.80	24.01	22.27	11.43	214.65	-1,169.17	643.90	599.03	44.87	14.350	
6,400.00	6,365.25	6,413.53	6,382.12	24.41	22.65	10.91	206.07	-1,169.55	629.88	584.31	45.57	13.822	
6,500.00	6,464.50	6,499.00	6,467.38	24.82	22.95	10.57	200.16	-1,169.17	615.57	569.27	46.29	13.297	
6,600.00	6,563.76	6,594.00	6,562.26	25.22	23.28	10.35	195.88	-1,170.47	603.58	556.56	47.01	12.838	
6,700.00	6,663.01	6,682.59	6,650.78	25.63	23.60	10.24	193.52	-1,173.18	593.62	545.89	47.73	12.436	
6,800.00	6,762.27	6,783.18	6,751.28	26.03	23.96	10.09	190.58	-1,176.13	583.59	535.13	48.46	12.043	
6,900.00	6,861.52	6,877.00	6,845.05	26.44	24.30	10.05	188.91	-1,178.94	573.93	524.76	49.18	11.671	
7,000.00	6,960.78	6,972.00	6,939.99	26.84	24.63	10.26	189.80	-1,181.94	565.22	515.33	49.89	11.329	
7,100.00	7,060.03	7,070.86	7,038.78	27.25	24.98	10.60	191.97	-1,185.18	556.99	506.38	50.61	11.006	
7,200.00	7,159.29	7,167.68	7,135.51	27.65	25.31	10.91	193.90	-1,188.73	549.09	497.76	51.32	10.698	
7,300.00	7,258.54	7,268.39	7,236.12	28.06	25.66	11.23	195.83	-1,192.72	541.47	489.42	52.05	10.403	
7,400.00	7,357.80	7,379.24	7,346.90	28.46	26.04	11.71	198.57	-1,195.37	532.54	479.76	52.78	10.090	
7,500.00	7,457.05	7,484.68	7,452.29	28.87	26.40	12.31	201.75	-1,195.80	521.94	468.45	53.49	9.758	
7,600.00	7,556.31	7,585.86	7,553.43	29.27	26.73	12.91	204.49	-1,195.62	510.76	456.56	54.20	9.424	
7,700.00	7,655.56	7,686.78	7,654.32	29.68	27.06	13.51	206.95	-1,195.19	499.31	444.40	54.91	9.093	
7,800.00	7,754.82	7,786.70	7,754.22	30.08	27.39	14.12	209.18	-1,194.51	487.61	431.99	55.62	8.767	
7,900.00	7,854.07	7,885.37	7,852.86	30.49	27.72	14.73	211.22	-1,193.91	475.97	419.63	56.34	8.449	
8,000.00	7,953.33	7,985.00	7,952.47	30.90	28.05	15.38	213.28	-1,193.38	464.46	407.40	57.05	8.141	
8,100.00	8,052.58	8,085.43	8,052.88	31.30	28.38	16.05	215.19	-1,192.68	452.79	395.02	57.77	7.838	
8,200.00	8,151.84	8,184.09	8,151.52	31.71	28.71	16.72	216.85	-1,191.94	441.06	382.57	58.49	7.541	
8,300.00	8,251.09	8,283.69	8,251.11	32.11	29.04	17.42	218.44	-1,191.31	429.46	370.25	59.21	7.253	
8,400.00	8,350.35	8,383.30	8,350.71	32.52	29.37	18.16	220.00	-1,190.56	417.80	357.87	59.93	6.971	
8,500.00	8,449.60	8,482.96	8,450.35	32.93	29.71	18.92	221.33	-1,189.79	406.11	345.45	60.66	6.695	
8,600.00	8,548.86	8,582.63	8,550.01	33.33	30.04	19.70	222.51	-1,188.94	394.34	332.96	61.38	6.424	
8,700.00	8,648.11	8,680.52	8,647.89	33.74	30.36	20.52	223.71	-1,188.21	382.77	320.66	62.12	6.162	
8,800.00	8,747.37	8,778.94	8,746.30	34.15	30.70	21.36	224.90	-1,187.85	371.61	308.75	62.86	5.912	
8,900.00	8,846.62	8,880.03	8,847.39	34.55	31.04	22.20	225.58	-1,187.49	360.29	296.70	63.59	5.666	
9,000.00	8,945.88	8,979.96	8,947.32	34.96	31.38	22.96	225.40	-1,187.24	348.72	284.39	64.33	5.421	
9,100.00	9,045.13	9,079.46	9,046.82	35.36	31.72	23.67	224.67	-1,187.08	337.02	271.94	65.07	5.179	
9,200.00	9,144.39	9,177.93	9,145.28	35.77	32.06	24.35	223.61	-1,187.25	325.48	259.66	65.83	4.945	
9,300.00	9,243.64	9,276.47	9,243.81	36.18	32.41	25.00	222.32	-1,187.85	314.24	247.65	66.58	4.719	
9,400.00	9,342.90	9,374.16	9,341.49	36.58	32.76	25.71	221.31	-1,188.60	303.32	235.97	67.35	4.504	
9,500.00	9,442.15	9,469.61	9,436.93	36.99	33.10	26.56	221.21	-1,189.81	293.39	225.26	68.13	4.306	
9,600.00	9,541.40	9,562.92	9,530.21	37.40	33.43	27.52	222.34	-1,192.13	285.25	216.35	68.90	4.140	
9,700.00	9,640.66	9,657.73	9,624.90	37.80	33.76	28.64	225.13	-1,196.03	279.52	209.85	69.67	4.012	
9,800.00	9,739.91	9,756.82	9,723.82	38.21	34.11	29.90	228.62	-1,200.62	274.69	204.23	70.45	3.899	
9,900.00	9,839.36	9,858.17	9,825.00	38.61	34.46	30.97	232.01	-1,205.29	271.33	200.09	71.24	3.809	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - LOS Federal 801H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 23-MWD+IFR1+MS — **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
9,982.40	9,921.54	9,941.25	9,907.96	38.91	34.76	31.34	233.46	-1,209.44	270.30	198.45	71.85	3.762	CC
10,000.00	9,939.11	9,958.66	9,925.34	38.98	34.82	31.35	233.64	-1,210.42	270.35	198.37	71.98	3.756	ES
10,100.00	10,039.04	10,058.60	10,025.09	39.33	35.18	31.03	234.09	-1,216.60	272.51	199.84	72.67	3.750	
10,200.00	10,139.04	10,157.29	10,123.57	39.65	35.53	-53.18	234.06	-1,223.13	277.38	204.06	73.32	3.783	
10,300.00	10,239.04	10,258.52	10,224.55	39.97	35.89	-54.06	233.93	-1,230.15	282.88	208.91	73.97	3.824	
10,400.00	10,339.04	10,363.88	10,329.77	40.28	36.27	-54.66	234.11	-1,235.54	287.15	212.50	74.65	3.847	
10,500.00	10,439.04	10,467.59	10,433.43	40.60	36.64	-55.01	234.16	-1,238.74	289.70	214.38	75.31	3.847	
10,600.00	10,539.04	10,565.71	10,531.50	40.92	36.99	-55.44	233.75	-1,241.91	292.11	216.13	75.99	3.844	
10,700.00	10,639.04	10,678.74	10,644.50	41.24	37.38	-55.77	232.46	-1,243.01	292.24	215.65	76.59	3.816	
10,800.00	10,739.04	10,784.44	10,750.16	41.56	37.74	-55.81	230.49	-1,240.52	289.24	212.05	77.20	3.747	
10,900.00	10,839.04	10,886.24	10,851.86	41.89	38.08	-55.88	227.75	-1,237.08	284.93	207.09	77.84	3.661	
10,985.41	10,924.35	10,969.32	10,934.86	42.15	38.36	125.23	225.50	-1,234.24	283.21	204.75	78.46	3.609	
11,000.00	10,938.95	10,982.93	10,948.45	42.20	38.41	125.06	225.23	-1,233.83	282.20	203.63	78.57	3.592	SF
11,100.00	11,037.16	11,076.47	11,041.97	42.50	38.72	127.25	224.43	-1,231.72	290.71	211.27	79.43	3.660	
11,200.00	11,130.73	11,168.09	11,133.57	42.77	39.03	130.59	224.60	-1,230.12	312.37	232.00	80.37	3.887	
11,300.00	11,216.80	11,257.30	11,222.78	43.01	39.33	134.18	224.81	-1,228.68	348.32	267.02	81.30	4.284	
11,400.00	11,292.78	11,340.69	11,306.11	43.23	39.61	137.16	224.15	-1,225.80	397.88	315.74	82.15	4.844	
11,500.00	11,356.34	11,407.83	11,373.18	43.41	39.83	137.89	223.11	-1,223.02	461.51	378.64	82.87	5.569	
11,600.00	11,405.56	11,457.77	11,423.07	43.59	40.00	135.23	222.21	-1,220.96	537.78	454.35	83.43	6.446	
11,700.00	11,438.94	11,492.07	11,457.34	43.79	40.11	127.20	221.63	-1,219.58	623.94	540.11	83.82	7.443	
11,800.00	11,455.47	11,509.93	11,475.19	44.02	40.17	108.80	221.34	-1,218.89	716.62	632.55	84.07	8.524	
11,900.00	11,458.23	11,514.31	11,479.56	44.31	40.19	98.99	221.27	-1,218.71	812.36	728.15	84.21	9.647	
12,000.00	11,459.87	11,517.56	11,482.81	44.67	40.20	99.84	221.22	-1,218.59	909.07	824.75	84.32	10.781	
12,100.00	11,461.51	11,520.81	11,486.05	45.08	40.21	100.68	221.17	-1,218.46	1,006.41	922.00	84.41	11.923	
12,200.00	11,463.15	11,524.04	11,489.28	45.56	40.22	101.51	221.12	-1,218.33	1,104.21	1,019.73	84.49	13.070	
12,300.00	11,464.79	11,527.27	11,492.51	46.10	40.23	102.34	221.06	-1,218.21	1,202.37	1,117.82	84.55	14.221	
12,400.00	11,466.43	11,530.48	11,495.72	46.69	40.24	103.16	221.01	-1,218.08	1,300.80	1,216.19	84.61	15.374	
12,500.00	11,468.07	11,533.69	11,498.92	47.33	40.25	103.97	220.96	-1,217.95	1,399.44	1,314.78	84.66	16.530	
12,600.00	11,469.72	11,536.89	11,502.12	48.02	40.27	104.78	220.91	-1,217.83	1,498.26	1,413.55	84.71	17.687	
12,700.00	11,471.36	11,540.08	11,505.30	48.77	40.28	105.58	220.86	-1,217.70	1,597.22	1,512.46	84.76	18.845	
12,800.00	11,473.00	11,543.25	11,508.48	49.55	40.29	106.37	220.81	-1,217.58	1,696.30	1,611.49	84.80	20.003	
12,900.00	11,474.64	11,546.42	11,511.65	50.38	40.30	107.15	220.76	-1,217.45	1,795.47	1,710.62	84.85	21.162	
13,000.00	11,476.28	11,549.58	11,514.80	51.25	40.31	107.93	220.71	-1,217.33	1,894.72	1,809.83	84.89	22.320	
13,100.00	11,477.92	11,552.74	11,517.95	52.16	40.32	108.70	220.66	-1,217.20	1,994.04	1,909.11	84.93	23.479	
13,200.00	11,479.56	11,555.88	11,521.09	53.10	40.33	109.46	220.61	-1,217.08	2,093.42	2,008.46	84.97	24.638	
13,300.00	11,481.20	11,559.01	11,524.22	54.08	40.34	110.21	220.57	-1,216.95	2,192.86	2,107.85	85.01	25.795	
13,400.00	11,482.84	11,562.14	11,527.34	55.09	40.35	110.95	220.52	-1,216.83	2,292.34	2,207.29	85.05	26.953	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - Trinity Federal 602H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 118-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	2.96	-0.04	0.00	0.00	45.50	899.12	915.06	1,282.87				
100.00	100.00	101.58	98.58	0.27	0.14	45.51	899.06	915.20	1,282.93	1,282.52	0.40	3,170.278	
200.00	200.00	211.02	208.02	0.63	0.48	45.51	898.81	915.09	1,282.70	1,281.59	1.11	1,156.246	
273.13	273.13	276.13	273.13	0.89	0.71	45.51	898.81	914.80	1,282.47	1,280.87	1.60	803.317	
300.00	300.00	301.38	298.38	0.99	0.79	45.50	898.91	914.74	1,282.50	1,280.72	1.78	720.369	
400.00	400.00	414.70	411.70	1.34	1.19	45.48	898.90	913.94	1,281.97	1,279.43	2.54	505.340	
500.00	500.00	513.60	510.59	1.70	1.54	45.45	898.70	912.92	1,281.09	1,277.84	3.25	394.658	
600.00	600.00	609.20	606.18	2.06	1.88	45.41	898.81	911.83	1,280.36	1,276.42	3.94	324.623	
700.00	700.00	705.65	702.62	2.42	2.23	45.37	899.40	911.02	1,280.19	1,275.54	4.64	275.621	
800.00	800.00	816.17	813.14	2.78	2.62	45.32	899.65	909.81	1,279.57	1,274.18	5.40	237.150	
900.00	900.00	919.89	916.85	3.14	2.99	45.29	899.28	908.32	1,278.29	1,272.17	6.12	208.767	
1,000.00	1,000.00	1,017.36	1,014.31	3.50	3.33	45.27	898.69	907.19	1,277.05	1,270.22	6.83	187.045	
1,100.00	1,100.00	1,116.17	1,113.11	3.85	3.69	45.26	898.12	906.43	1,276.09	1,268.56	7.54	169.312	
1,200.00	1,200.00	1,216.09	1,213.03	4.21	4.04	45.25	897.48	905.49	1,274.97	1,266.72	8.25	154.514	
1,300.00	1,300.00	1,307.00	1,303.94	4.57	4.37	45.23	897.34	904.72	1,274.26	1,265.33	8.93	142.626	
1,400.00	1,400.00	1,434.91	1,431.84	4.93	4.82	45.23	896.37	903.60	1,273.18	1,263.44	9.74	130.651	
1,500.00	1,500.00	1,585.87	1,582.62	5.29	5.36	45.20	892.09	898.19	1,268.62	1,257.99	10.63	119.363	
1,600.00	1,599.98	1,739.94	1,736.13	5.64	5.91	150.30	883.38	888.59	1,261.86	1,250.37	11.49	109.787	
1,700.00	1,699.84	1,885.72	1,880.72	5.97	6.44	150.54	870.48	875.25	1,253.60	1,241.29	12.31	101.839	
1,800.00	1,799.45	2,019.80	2,013.10	6.32	6.93	150.81	856.93	858.88	1,245.35	1,232.26	13.09	95.143	
1,900.00	1,898.76	2,137.06	2,128.42	6.67	7.36	151.01	844.46	841.68	1,237.60	1,223.77	13.83	89.484	
2,000.00	1,998.01	2,236.71	2,226.29	7.03	7.73	151.14	833.85	826.24	1,229.64	1,215.10	14.54	84.567	
2,100.00	2,097.27	2,336.98	2,324.77	7.39	8.10	151.27	823.26	810.61	1,221.69	1,206.43	15.26	80.079	
2,200.00	2,196.52	2,444.12	2,429.93	7.76	8.50	151.43	811.23	794.02	1,213.34	1,197.35	15.99	75.883	
2,300.00	2,295.78	2,545.17	2,529.04	8.14	8.88	151.63	798.86	778.69	1,204.52	1,187.81	16.71	72.067	
2,400.00	2,395.03	2,638.85	2,620.98	8.51	9.23	151.84	787.32	764.94	1,196.03	1,178.61	17.43	68.633	
2,500.00	2,494.29	2,733.65	2,714.11	8.89	9.58	152.06	775.78	751.47	1,188.01	1,169.87	18.14	65.479	
2,600.00	2,593.54	2,833.87	2,812.62	9.27	9.96	152.33	763.40	737.77	1,180.28	1,161.40	18.87	62.537	
2,700.00	2,692.80	2,945.23	2,921.94	9.66	10.38	144.61	748.34	722.93	1,171.76	1,152.13	19.63	59.702	
2,800.00	2,792.07	3,046.66	3,021.35	10.04	10.76	132.03	733.48	709.26	1,160.58	1,140.22	20.37	56.983	
2,900.00	2,891.33	3,140.32	3,113.18	10.43	11.11	132.55	719.84	696.91	1,149.09	1,128.00	21.10	54.472	
3,000.00	2,990.58	3,241.95	3,212.88	10.82	11.50	133.11	705.52	683.38	1,137.93	1,116.09	21.84	52.106	
3,100.00	3,089.84	3,349.18	3,317.96	11.21	11.90	133.69	690.25	668.40	1,126.28	1,103.69	22.59	49.851	
3,200.00	3,189.09	3,440.48	3,407.40	11.60	12.25	134.21	676.89	655.81	1,114.61	1,091.29	23.32	47.790	
3,300.00	3,288.35	3,527.26	3,492.52	11.99	12.58	134.77	663.91	645.11	1,103.96	1,079.91	24.04	45.913	
3,400.00	3,387.60	3,638.24	3,601.42	12.38	13.00	135.54	646.98	631.99	1,093.70	1,068.90	24.81	44.088	
3,500.00	3,486.86	3,759.88	3,720.34	12.78	13.47	136.32	628.08	614.76	1,081.50	1,055.91	25.58	42.276	
3,600.00	3,586.11	3,854.76	3,812.96	13.17	13.83	136.89	613.61	600.14	1,068.65	1,042.33	26.32	40.596	
3,700.00	3,685.37	3,940.88	3,897.20	13.57	14.16	137.39	601.28	587.21	1,056.82	1,029.76	27.06	39.061	
3,800.00	3,784.62	4,029.73	3,984.32	13.97	14.50	137.91	589.34	574.45	1,046.14	1,018.35	27.79	37.646	
3,900.00	3,883.88	4,122.02	4,074.95	14.36	14.85	138.43	577.68	561.51	1,036.33	1,007.81	28.53	36.330	
4,000.00	3,983.13	4,212.63	4,164.06	14.76	15.20	138.93	566.94	549.12	1,027.37	998.11	29.26	35.114	
4,100.00	4,082.39	4,307.85	4,257.82	15.16	15.56	139.44	556.38	536.29	1,019.10	989.10	30.00	33.973	
4,200.00	4,181.64	4,408.52	4,356.97	15.56	15.94	139.94	545.87	522.38	1,011.00	980.25	30.75	32.882	
4,300.00	4,280.90	4,505.24	4,452.24	15.96	16.31	140.38	536.60	508.54	1,003.04	971.56	31.49	31.855	
4,400.00	4,380.15	4,600.36	4,545.99	16.36	16.66	140.76	528.51	494.63	995.49	963.26	32.23	30.891	
4,500.00	4,479.40	4,693.19	4,637.55	16.76	17.01	141.05	522.03	480.76	988.53	955.57	32.96	29.993	
4,600.00	4,578.66	4,784.08	4,727.27	17.16	17.35	141.27	517.17	467.08	982.39	948.71	33.68	29.164	
4,700.00	4,677.91	4,876.04	4,818.14	17.56	17.69	141.44	513.44	453.45	977.16	942.75	34.41	28.397	
4,800.00	4,777.17	4,986.06	4,926.85	17.96	18.10	141.70	508.14	437.44	971.77	936.60	35.18	27.625	
4,900.00	4,876.42	5,103.25	5,042.50	18.36	18.54	142.12	499.64	420.54	965.26	929.31	35.95	26.849	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - Trinity Federal 602H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 118-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,975.68	5,236.87	5,173.68	18.76	19.05	142.80	485.32	399.56	955.81	919.08	36.73	26.025	
5,100.00	5,074.93	5,394.93	5,326.94	19.17	19.67	144.04	458.74	371.82	941.66	904.22	37.43	25.157	
5,200.00	5,174.19	5,509.32	5,436.20	19.57	20.13	145.26	433.10	349.69	923.15	885.00	38.15	24.199	
5,300.00	5,273.44	5,593.37	5,516.50	19.97	20.46	146.19	414.40	333.37	905.09	866.16	38.93	23.247	
5,400.00	5,372.70	5,669.50	5,589.79	20.37	20.76	146.95	399.56	319.11	889.30	849.57	39.73	22.386	
5,500.00	5,471.95	5,744.65	5,662.69	20.78	21.06	147.68	386.36	306.47	876.34	835.84	40.50	21.638	
5,600.00	5,571.21	5,826.02	5,742.04	21.18	21.37	148.46	373.21	294.20	865.84	824.59	41.25	20.989	
5,700.00	5,670.46	5,922.15	5,836.00	21.58	21.75	149.39	358.23	280.54	856.62	814.62	42.00	20.397	
5,800.00	5,769.72	6,016.51	5,928.33	21.99	22.11	150.32	343.67	267.56	848.13	805.39	42.74	19.842	
5,900.00	5,868.97	6,136.52	6,045.48	22.39	22.58	151.52	324.74	249.70	838.71	795.22	43.49	19.284	
6,000.00	5,968.23	6,246.72	6,152.55	22.79	23.01	152.68	306.20	231.39	827.52	783.29	44.23	18.708	
6,100.00	6,067.48	6,347.12	6,249.88	23.20	23.41	153.80	288.60	214.11	815.82	770.83	44.98	18.136	
6,200.00	6,166.74	6,443.73	6,343.71	23.60	23.79	154.78	273.39	196.88	804.44	758.71	45.74	17.588	
6,300.00	6,265.99	6,522.06	6,420.04	24.01	24.09	155.48	262.66	182.99	794.23	747.73	46.50	17.079	
6,400.00	6,365.25	6,590.55	6,487.41	24.41	24.35	155.97	255.92	172.71	787.89	740.66	47.23	16.684	
6,500.00	6,464.50	6,671.00	6,567.04	24.82	24.65	156.46	249.96	162.92	785.09	737.17	47.92	16.383	
6,534.45	6,498.70	6,688.99	6,584.90	24.96	24.72	156.56	248.84	161.09	784.87	736.76	48.12	16.311	CC, ES
6,600.00	6,563.76	6,732.07	6,627.77	25.22	24.88	156.79	246.66	157.44	785.95	737.45	48.50	16.206	
6,700.00	6,663.01	6,799.55	6,695.11	25.63	25.11	157.10	244.52	153.85	791.14	742.12	49.02	16.140	
6,800.00	6,762.27	6,870.58	6,766.12	26.03	25.36	157.40	243.32	152.63	800.24	750.74	49.50	16.166	
6,900.00	6,861.52	6,955.00	6,850.53	26.44	25.63	157.76	242.44	153.28	811.97	761.91	50.06	16.221	
7,000.00	6,960.78	7,051.84	6,947.35	26.84	25.93	158.16	241.51	155.10	824.82	774.11	50.71	16.265	
7,100.00	7,060.03	7,179.47	7,074.96	27.25	26.36	158.69	239.72	155.55	836.17	784.51	51.66	16.187	
7,200.00	7,159.29	7,286.11	7,181.55	27.65	26.73	159.09	237.89	152.87	844.65	792.23	52.42	16.112	
7,300.00	7,258.54	7,375.62	7,271.04	28.06	27.04	159.36	237.37	151.24	854.14	801.08	53.06	16.099	
7,400.00	7,357.80	7,471.02	7,366.43	28.46	27.36	159.61	237.41	150.07	864.38	810.65	53.73	16.088	
7,500.00	7,457.05	7,568.20	7,463.62	28.87	27.70	159.86	237.43	149.19	874.95	820.54	54.41	16.079	
7,600.00	7,556.31	7,665.04	7,560.45	29.27	28.03	160.11	237.51	148.55	885.80	830.70	55.10	16.077	
7,700.00	7,655.56	7,760.38	7,655.79	29.68	28.34	160.34	237.87	148.20	897.00	841.24	55.76	16.088	
7,800.00	7,754.82	7,854.13	7,749.53	30.08	28.64	160.54	238.63	148.28	908.75	852.36	56.39	16.116	
7,900.00	7,854.07	7,945.88	7,841.27	30.49	28.92	160.71	239.76	148.92	921.20	864.20	57.00	16.161	
8,000.00	7,953.33	8,039.64	7,935.01	30.90	29.21	160.88	241.18	150.31	934.48	876.85	57.62	16.217	
8,100.00	8,052.58	8,136.39	8,031.74	31.30	29.51	161.05	242.60	152.04	948.05	889.77	58.28	16.268	
8,200.00	8,151.84	8,254.95	8,150.28	31.71	29.89	161.27	244.01	153.75	961.33	902.20	59.13	16.258	
8,300.00	8,251.09	8,362.41	8,257.74	32.11	30.25	161.50	244.27	153.13	972.36	912.46	59.90	16.234	
8,400.00	8,350.35	8,455.96	8,351.28	32.52	30.56	161.68	244.68	152.64	983.50	922.96	60.55	16.244	
8,500.00	8,449.60	8,558.44	8,453.75	32.93	30.90	161.85	245.61	152.23	994.88	933.62	61.27	16.239	
8,600.00	8,548.86	8,659.80	8,555.10	33.33	31.24	162.00	246.80	151.44	1,005.94	943.97	61.98	16.231	
8,700.00	8,648.11	8,755.02	8,650.31	33.74	31.55	162.13	247.89	150.81	1,017.13	954.48	62.64	16.238	
8,800.00	8,747.37	8,848.29	8,743.57	34.15	31.86	162.25	249.32	150.61	1,028.82	965.53	63.28	16.257	
8,900.00	8,846.62	8,946.03	8,841.30	34.55	32.18	162.35	251.23	150.69	1,040.89	976.93	63.96	16.274	
9,000.00	8,945.88	9,049.21	8,944.46	34.96	32.51	162.46	252.99	150.68	1,052.82	988.14	64.68	16.277	
9,100.00	9,045.13	9,151.53	9,046.77	35.36	32.85	162.58	254.44	150.41	1,064.45	999.05	65.40	16.277	
9,200.00	9,144.39	9,253.45	9,148.68	35.77	33.19	162.72	255.60	149.86	1,075.77	1,009.66	66.11	16.271	
9,300.00	9,243.64	9,354.18	9,249.40	36.18	33.53	162.85	256.61	149.25	1,087.01	1,020.18	66.83	16.266	
9,400.00	9,342.90	9,457.13	9,352.35	36.58	33.88	163.00	257.38	148.35	1,097.94	1,030.39	67.56	16.252	
9,500.00	9,442.15	9,559.36	9,454.57	36.99	34.23	163.14	258.11	147.20	1,108.63	1,040.35	68.29	16.235	
9,600.00	9,541.40	9,657.92	9,553.11	37.40	34.57	163.27	258.85	145.91	1,119.15	1,050.16	68.99	16.223	
9,700.00	9,640.66	9,753.75	9,648.93	37.80	34.90	163.37	259.95	144.85	1,129.95	1,060.28	69.67	16.220	
9,800.00	9,739.91	9,850.79	9,745.96	38.21	35.22	163.46	261.47	143.98	1,141.03	1,070.68	70.35	16.219	
9,900.00	9,839.36	9,944.26	9,839.40	38.61	35.54	163.54	263.62	143.29	1,150.75	1,079.75	71.00	16.207	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 Offsets - Trinity Federal 602H - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 118-MWD+IFR1+MS

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,939.11	10,030.64	9,925.75	38.98	35.82	163.58	265.51	143.38	1,157.97	1,086.39	71.58	16.177	
10,100.00	10,039.04	10,118.99	10,014.09	39.33	36.10	163.59	267.05	144.70	1,163.11	1,090.94	72.16	16.117	
10,200.00	10,139.04	10,219.83	10,114.89	39.65	36.43	80.08	268.81	146.72	1,165.81	1,092.98	72.83	16.007	
10,300.00	10,239.04	10,350.66	10,245.69	39.97	36.86	79.98	271.06	147.70	1,166.94	1,093.20	73.74	15.825	
10,400.00	10,339.04	10,469.68	10,364.69	40.28	37.27	79.91	272.24	145.68	1,165.42	1,090.86	74.56	15.631	
10,500.00	10,439.04	10,572.05	10,467.03	40.60	37.63	79.87	272.60	143.13	1,163.02	1,087.76	75.26	15.453	
10,600.00	10,539.04	10,664.90	10,559.86	40.92	37.96	79.85	272.63	141.08	1,160.86	1,084.96	75.90	15.294	
10,700.00	10,639.04	10,753.43	10,648.37	41.24	38.27	79.83	272.81	139.91	1,159.60	1,083.09	76.51	15.157	
10,800.00	10,739.04	10,847.75	10,742.68	41.56	38.59	79.77	274.03	139.22	1,159.10	1,081.95	77.15	15.025	
10,900.00	10,839.04	10,952.15	10,847.07	41.89	38.95	79.67	275.89	138.41	1,158.66	1,080.80	77.86	14.882	
11,000.00	10,938.95	11,065.27	10,960.17	42.20	39.34	-100.03	276.46	136.94	1,157.93	1,079.30	78.63	14.726	
11,010.94	10,949.83	11,078.14	10,973.04	42.23	39.38	-100.09	276.34	136.71	1,157.92	1,079.20	78.72	14.710	
11,100.00	11,037.16	11,182.83	11,077.65	42.50	39.75	-100.87	273.20	134.41	1,158.60	1,079.18	79.42	14.589	
11,200.00	11,130.73	11,267.48	11,162.11	42.77	40.05	-101.68	267.99	132.44	1,162.24	1,082.26	79.98	14.532 SF	
11,300.00	11,216.80	11,302.00	11,196.62	43.01	40.17	-101.41	267.99	131.90	1,173.21	1,093.05	80.16	14.636	
11,400.00	11,292.78	11,349.00	11,243.35	43.23	40.33	-101.02	272.74	131.72	1,193.37	1,112.98	80.39	14.845	
11,500.00	11,356.34	11,349.00	11,243.35	43.41	40.33	-97.91	272.74	131.72	1,223.39	1,143.25	80.14	15.265	
11,600.00	11,405.56	11,371.46	11,265.42	43.59	40.40	-94.73	276.86	132.03	1,262.21	1,182.05	80.16	15.745	
11,700.00	11,438.94	11,375.75	11,269.62	43.79	40.41	-89.68	277.74	132.14	1,308.77	1,228.70	80.06	16.347	
11,800.00	11,455.47	11,374.39	11,268.29	44.02	40.41	-83.51	277.46	132.10	1,360.97	1,280.96	80.01	17.010	
11,900.00	11,458.23	11,369.26	11,263.26	44.31	40.39	-80.92	276.42	131.98	1,417.19	1,337.18	80.01	17.713	
12,000.00	11,459.87	11,349.00	11,243.35	44.67	40.33	-79.94	272.74	131.72	1,478.15	1,398.29	79.86	18.509	
12,100.00	11,461.51	11,349.00	11,243.35	45.08	40.33	-79.94	272.74	131.72	1,542.72	1,462.76	79.96	19.294	
12,200.00	11,463.15	11,349.00	11,243.35	45.56	40.33	-79.94	272.74	131.72	1,610.92	1,530.85	80.06	20.121	
12,300.00	11,464.79	11,349.00	11,243.35	46.10	40.33	-79.94	272.74	131.72	1,682.29	1,602.13	80.16	20.985	
12,400.00	11,466.43	11,349.00	11,243.35	46.69	40.33	-79.94	272.74	131.72	1,756.46	1,676.20	80.27	21.883	
12,500.00	11,468.07	11,349.00	11,243.35	47.33	40.33	-79.94	272.74	131.72	1,833.09	1,752.73	80.36	22.810	
12,600.00	11,469.72	11,349.00	11,243.35	48.02	40.33	-79.94	272.74	131.72	1,911.88	1,831.42	80.46	23.762	
12,700.00	11,471.36	11,349.00	11,243.35	48.77	40.33	-79.94	272.74	131.72	1,992.57	1,912.02	80.55	24.736	
12,800.00	11,473.00	11,349.00	11,243.35	49.55	40.33	-79.94	272.74	131.72	2,074.95	1,994.31	80.64	25.730	
12,900.00	11,474.64	11,349.00	11,243.35	50.38	40.33	-79.94	272.74	131.72	2,158.81	2,078.08	80.73	26.742	
13,000.00	11,476.28	11,349.00	11,243.35	51.25	40.33	-79.94	272.74	131.72	2,244.00	2,163.19	80.81	27.769	
13,100.00	11,477.92	11,349.00	11,243.35	52.16	40.33	-79.94	272.74	131.72	2,330.36	2,249.47	80.89	28.809	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 14H (Well F) - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	23.00	0.00	0.00	142.96	-80.30	60.60	103.19				
100.00	100.00	77.28	100.28	0.27	0.28	142.98	-80.26	60.53	100.52	99.98	0.55	184.087	
200.00	200.00	177.83	200.83	0.63	0.64	143.11	-79.96	60.02	99.98	98.72	1.27	79.019	
300.00	300.00	278.01	301.00	0.99	1.00	143.32	-79.38	59.13	98.98	97.00	1.98	49.918	
400.00	400.00	378.29	401.27	1.34	1.36	143.55	-78.70	58.13	97.85	95.15	2.70	36.228	
500.00	500.00	478.57	501.54	1.70	1.72	143.95	-77.94	56.72	96.41	92.99	3.42	28.196	
600.00	600.00	579.03	601.97	2.06	2.08	144.66	-77.10	54.67	94.54	90.40	4.14	22.845	
700.00	700.00	679.09	701.99	2.42	2.44	145.88	-76.49	51.83	92.41	87.56	4.86	19.031	
800.00	800.00	779.07	801.92	2.78	2.80	147.28	-75.90	48.76	90.23	84.66	5.57	16.188	
900.00	900.00	878.76	901.58	3.14	3.16	148.65	-75.35	45.90	88.24	81.95	6.29	14.026	
1,000.00	1,000.00	978.43	1,001.21	3.50	3.52	149.91	-74.99	43.45	86.67	79.67	7.01	12.367	
1,100.00	1,100.00	1,078.34	1,101.10	3.85	3.88	151.11	-74.67	41.21	85.29	77.56	7.73	11.039	
1,200.00	1,200.00	1,177.98	1,200.72	4.21	4.23	152.16	-74.50	39.35	84.25	75.81	8.44	9.980	
1,300.00	1,300.00	1,278.27	1,300.99	4.57	4.59	153.22	-74.46	37.58	83.41	74.25	9.16	9.105	
1,400.00	1,400.00	1,379.97	1,402.63	4.93	4.96	155.32	-73.95	33.98	81.43	71.54	9.89	8.237	
1,500.00	1,500.00	1,481.23	1,503.52	5.29	5.34	160.60	-72.74	25.62	77.20	66.59	10.61	7.274	
1,600.00	1,599.98	1,580.87	1,602.48	5.64	5.71	-87.56	-71.72	14.09	73.03	61.69	11.34	6.440	
1,700.00	1,699.84	1,680.38	1,701.11	5.97	6.09	-81.30	-71.28	0.82	69.90	57.83	12.07	5.793	
1,800.00	1,799.45	1,780.10	1,799.77	6.32	6.48	-76.39	-71.10	-13.65	67.05	54.25	12.80	5.237	
1,900.00	1,898.76	1,879.98	1,898.59	6.67	6.88	-73.67	-70.98	-28.11	63.89	50.34	13.55	4.715	
2,000.00	1,998.01	1,979.93	1,997.51	7.03	7.28	-71.12	-70.85	-42.47	60.74	46.43	14.30	4.246	
2,100.00	2,097.27	2,079.99	2,096.56	7.39	7.68	-68.44	-70.57	-56.70	57.55	42.48	15.06	3.820	
2,200.00	2,196.52	2,180.09	2,195.70	7.76	8.08	-65.90	-70.05	-70.46	54.18	38.35	15.83	3.423	
2,300.00	2,295.78	2,280.11	2,294.85	8.14	8.48	-63.67	-69.36	-83.60	50.65	34.06	16.59	3.053	
2,400.00	2,395.03	2,380.24	2,394.19	8.51	8.88	-61.76	-68.42	-96.14	46.80	29.45	17.35	2.697	
2,500.00	2,494.29	2,479.91	2,492.93	8.89	9.29	-58.13	-67.34	-109.67	43.19	25.08	18.11	2.385	
2,600.00	2,593.54	2,580.01	2,592.04	9.27	9.70	-53.22	-66.10	-123.66	39.78	20.93	18.85	2.110	
2,700.00	2,692.80	2,680.13	2,691.30	9.66	10.10	-57.25	-64.60	-136.61	36.39	16.80	19.59	1.858	Collision Risk Procedures Req.
2,800.00	2,792.07	2,780.17	2,790.57	10.04	10.51	-69.23	-63.12	-148.91	35.42	15.07	20.35	1.740	Collision Risk Procedures Req.
2,899.30	2,890.63	2,879.44	2,889.15	10.43	10.90	-69.88	-61.79	-160.50	35.27	14.14	21.13	1.669	Collision Risk Procedures Req., CC
2,900.00	2,891.33	2,880.14	2,889.85	10.43	10.91	-69.88	-61.78	-160.59	35.27	14.13	21.13	1.669	Collision Risk Procedures Req.
3,000.00	2,990.58	2,979.93	2,988.82	10.82	11.31	-68.98	-60.42	-173.30	35.59	13.69	21.90	1.625	Collision Risk Procedures Req.
3,100.00	3,089.84	3,079.70	3,087.56	11.21	11.73	-65.90	-58.86	-187.48	36.47	13.82	22.65	1.610	Collision Risk Procedures Req.
3,200.00	3,189.09	3,179.71	3,186.35	11.60	12.15	-61.17	-57.09	-202.97	38.01	14.64	23.36	1.627	Collision Risk Procedures Req.
3,300.00	3,288.35	3,280.05	3,285.58	11.99	12.57	-57.42	-54.93	-217.67	38.96	14.87	24.09	1.617	Collision Risk Procedures Req.
3,400.00	3,387.60	3,380.52	3,385.23	12.38	12.98	-56.37	-53.07	-230.36	38.94	14.09	24.85	1.567	Collision Risk Procedures Req.
3,488.42	3,475.37	3,468.69	3,472.82	12.73	13.33	-56.95	-51.67	-240.39	38.39	12.85	25.54	1.503	Collision Risk Procedures Req.
3,500.00	3,486.86	3,480.19	3,484.23	12.78	13.38	-56.93	-51.51	-241.80	38.40	12.77	25.63	1.498	Collision Risk Procedures Req., ES
3,600.00	3,586.11	3,579.80	3,582.97	13.17	13.79	-55.95	-50.30	-254.86	39.18	12.80	26.38	1.485	Collision Risk Procedures Req., SF
3,700.00	3,685.37	3,679.41	3,681.51	13.57	14.20	-53.39	-48.96	-269.33	40.85	13.76	27.09	1.508	Collision Risk Procedures Req.
3,800.00	3,784.62	3,779.15	3,779.93	13.97	14.63	-49.12	-47.14	-285.38	43.41	15.65	27.76	1.564	Collision Risk Procedures Req.
3,900.00	3,883.88	3,879.20	3,878.60	14.36	15.07	-44.83	-45.04	-301.79	46.25	17.82	28.43	1.627	Collision Risk Procedures Req.
4,000.00	3,983.13	3,979.09	3,977.11	14.76	15.50	-40.70	-42.60	-318.20	49.15	20.06	29.09	1.690	Collision Risk Procedures Req.
4,100.00	4,082.39	4,078.94	4,075.53	15.16	15.93	-36.75	-39.97	-334.83	52.38	22.63	29.75	1.761	Collision Risk Procedures Req.
4,200.00	4,181.64	4,179.02	4,174.17	15.56	16.37	-32.98	-37.02	-351.48	55.67	25.26	30.42	1.830	Collision Risk Procedures Req.
4,300.00	4,280.90	4,279.06	4,272.80	15.96	16.81	-29.44	-33.73	-367.87	58.81	27.73	31.09	1.892	Collision Risk Procedures Req.
4,400.00	4,380.15	4,378.83	4,371.20	16.36	17.24	-26.71	-30.91	-384.10	62.21	30.44	31.77	1.958	Collision Risk Procedures Req.
4,500.00	4,479.40	4,478.58	4,469.62	16.76	17.68	-24.95	-28.87	-400.21	65.84	33.37	32.47	2.027	
4,600.00	4,578.66	4,578.26	4,567.95	17.16	18.11	-23.99	-27.67	-416.49	69.96	36.77	33.19	2.108	
4,700.00	4,677.91	4,677.98	4,666.29	17.56	18.55	-22.93	-26.24	-432.95	74.20	40.29	33.91	2.188	
4,800.00	4,777.17	4,777.29	4,764.19	17.96	18.99	-22.62	-25.83	-449.67	79.06	44.43	34.63	2.283	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 14H (Well F) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,877.26	4,862.69	18.36	19.43	-23.16	-26.68	-466.66	84.43	49.03	35.40	2.385	
5,000.00	4,975.68	4,977.55	4,961.63	18.76	19.87	-23.76	-27.56	-483.09	89.23	53.06	36.17	2.467	
5,100.00	5,074.93	5,077.66	5,060.42	19.17	20.30	-24.17	-28.16	-499.30	93.76	56.82	36.94	2.538	
5,200.00	5,174.19	5,177.62	5,159.09	19.57	20.74	-24.64	-28.86	-515.26	98.12	60.42	37.70	2.603	
5,300.00	5,273.44	5,277.74	5,257.93	19.97	21.17	-25.00	-29.42	-531.22	102.39	63.93	38.46	2.662	
5,400.00	5,372.70	5,378.15	5,357.08	20.37	21.61	-25.00	-29.28	-547.08	106.33	67.10	39.23	2.711	
5,500.00	5,471.95	5,478.23	5,455.92	20.78	22.04	-24.77	-28.61	-562.71	109.92	69.95	39.97	2.750	
5,600.00	5,571.21	5,578.74	5,555.23	21.18	22.48	-24.50	-27.75	-578.18	113.24	72.51	40.72	2.781	
5,700.00	5,670.46	5,679.57	5,654.92	21.58	22.91	-23.94	-26.11	-593.25	115.90	74.43	41.47	2.795	
5,800.00	5,769.72	5,780.09	5,754.36	21.99	23.34	-23.27	-24.00	-607.80	117.98	75.78	42.20	2.795	
5,900.00	5,868.97	5,880.83	5,854.11	22.39	23.76	-22.77	-22.04	-621.72	119.47	76.53	42.95	2.782	
6,000.00	5,968.23	5,980.93	5,953.29	22.79	24.18	-22.38	-20.18	-635.10	120.57	76.89	43.68	2.760	
6,100.00	6,067.48	6,080.47	6,051.88	23.20	24.60	-21.93	-18.25	-648.72	121.96	77.55	44.41	2.746	
6,200.00	6,166.74	6,180.63	6,151.07	23.60	25.02	-21.48	-16.31	-662.48	123.40	78.26	45.14	2.734	
6,300.00	6,265.99	6,280.83	6,250.32	24.01	25.44	-21.05	-14.34	-676.07	124.68	78.80	45.87	2.718	
6,400.00	6,365.25	6,380.95	6,349.52	24.41	25.86	-20.67	-12.42	-689.51	125.83	79.22	46.61	2.700	
6,500.00	6,464.50	6,481.12	6,448.78	24.82	26.28	-20.30	-10.49	-702.85	126.89	79.54	47.34	2.680	
6,600.00	6,563.76	6,581.36	6,548.14	25.22	26.70	-19.92	-8.49	-716.02	127.76	79.68	48.08	2.657	
6,700.00	6,663.01	6,681.87	6,647.79	25.63	27.11	-19.61	-6.55	-728.94	128.38	79.56	48.82	2.630	
6,800.00	6,762.27	6,782.55	6,747.68	26.03	27.53	-19.33	-4.58	-741.38	128.50	78.94	49.55	2.593	
6,900.00	6,861.52	6,882.59	6,846.97	26.44	27.93	-19.07	-2.56	-753.41	128.27	77.99	50.29	2.551	
6,945.07	6,906.26	6,927.44	6,891.48	26.62	28.12	-18.90	-1.58	-758.86	128.22	77.61	50.62	2.533	
7,000.00	6,960.78	6,981.96	6,945.56	26.84	28.34	-18.65	-0.28	-765.67	128.31	77.30	51.01	2.515	
7,100.00	7,060.03	7,082.49	7,045.26	27.25	28.76	-18.14	2.19	-778.25	128.50	76.76	51.74	2.483	
7,129.58	7,089.39	7,111.96	7,074.51	27.37	28.88	-18.02	2.88	-781.85	128.48	76.52	51.96	2.473	
7,200.00	7,159.29	7,181.85	7,143.84	27.65	29.16	-17.75	4.41	-790.57	128.62	76.16	52.46	2.452	
7,300.00	7,258.54	7,280.88	7,242.00	28.06	29.57	-17.44	6.31	-803.45	129.42	76.23	53.19	2.433	
7,400.00	7,357.80	7,381.17	7,341.41	28.46	29.99	-17.24	7.96	-816.68	130.45	76.52	53.93	2.419	
7,500.00	7,457.05	7,480.71	7,440.05	28.87	30.41	-17.06	9.56	-829.83	131.50	76.84	54.66	2.406	
7,600.00	7,556.31	7,579.46	7,537.83	29.27	30.82	-16.93	10.89	-843.68	133.41	78.03	55.38	2.409	
7,700.00	7,655.56	7,680.18	7,637.57	29.68	31.25	-16.99	11.83	-857.59	135.18	79.05	56.14	2.408	
7,800.00	7,754.82	7,779.94	7,736.32	30.08	31.67	-16.80	13.28	-871.70	137.19	80.32	56.87	2.412	
7,900.00	7,854.07	7,880.89	7,836.36	30.49	32.10	-16.70	14.72	-885.13	138.37	80.75	57.62	2.401	
8,000.00	7,953.33	7,980.34	7,934.88	30.90	32.51	-16.69	15.86	-898.65	139.89	81.54	58.36	2.397	
8,100.00	8,052.58	8,080.53	8,034.16	31.30	32.93	-16.75	16.85	-912.06	141.23	82.13	59.10	2.390	
8,200.00	8,151.84	8,179.35	8,132.02	31.71	33.35	-16.61	18.28	-925.71	142.92	83.09	59.83	2.389	
8,300.00	8,251.09	8,279.36	8,230.92	32.11	33.78	-16.18	20.32	-940.43	145.41	84.85	60.56	2.401	
8,400.00	8,350.35	8,379.65	8,330.19	32.52	34.20	-15.82	22.29	-954.59	147.32	86.03	61.29	2.404	
8,500.00	8,449.60	8,479.60	8,429.10	32.93	34.63	-15.50	24.17	-968.81	149.36	87.33	62.02	2.408	
8,600.00	8,548.86	8,580.36	8,528.85	33.33	35.05	-15.18	26.12	-982.91	151.15	88.39	62.76	2.408	
8,700.00	8,648.11	8,679.92	8,627.46	33.74	35.47	-14.96	27.85	-996.54	152.68	89.19	63.49	2.405	
8,800.00	8,747.37	8,780.27	8,726.84	34.15	35.90	-14.79	29.46	-1,010.44	154.39	90.16	64.24	2.404	
8,900.00	8,846.62	8,881.57	8,827.24	34.55	36.32	-14.78	30.73	-1,023.82	155.52	90.53	64.99	2.393	
9,000.00	8,945.88	8,982.03	8,926.92	34.96	36.73	-15.11	31.16	-1,036.35	156.02	90.27	65.75	2.373	
9,100.00	9,045.13	9,079.94	9,024.03	35.36	37.14	-15.60	31.08	-1,048.73	156.79	90.30	66.49	2.358	
9,200.00	9,144.39	9,171.51	9,114.31	35.77	37.54	-15.51	31.93	-1,063.98	161.38	94.33	67.05	2.407	
9,300.00	9,243.64	9,271.59	9,212.54	36.18	38.00	-14.97	33.83	-1,083.03	168.23	100.45	67.79	2.482	
9,400.00	9,342.90	9,371.48	9,310.56	36.58	38.47	-14.37	35.99	-1,102.11	175.14	106.62	68.52	2.556	
9,500.00	9,442.15	9,473.29	9,410.63	36.99	38.93	-13.77	38.43	-1,120.72	181.19	111.90	69.29	2.615	
9,600.00	9,541.40	9,574.42	9,510.14	37.40	39.39	-13.21	40.96	-1,138.57	186.62	116.58	70.05	2.664	
9,700.00	9,640.66	9,677.20	9,611.51	37.80	39.85	-12.78	43.31	-1,155.38	190.79	119.96	70.83	2.694	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 14H (Well F) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,739.91	9,781.88	9,715.03	38.21	40.29	-12.44	45.61	-1,170.70	193.26	121.64	71.62	2.698	
9,900.00	9,839.36	9,887.67	9,820.09	38.61	40.72	-12.16	47.72	-1,182.93	194.32	121.95	72.37	2.685	
10,000.00	9,939.11	9,991.26	9,923.24	38.98	41.12	-11.95	49.08	-1,192.31	196.35	123.27	73.08	2.687	
10,100.00	10,039.04	10,094.14	10,025.83	39.33	41.50	-11.72	49.98	-1,199.97	200.25	126.47	73.77	2.714	
10,200.00	10,139.04	10,200.09	10,131.63	39.65	41.88	-94.92	50.50	-1,205.54	205.00	130.62	74.39	2.756	
10,300.00	10,239.04	10,301.12	10,232.59	39.97	42.22	-94.53	51.64	-1,209.00	208.32	133.27	75.04	2.776	
10,400.00	10,339.04	10,400.84	10,332.24	40.28	42.55	-93.98	53.42	-1,212.29	211.47	135.76	75.72	2.793	
10,500.00	10,439.04	10,500.68	10,432.01	40.60	42.89	-93.48	55.05	-1,215.65	214.73	138.34	76.40	2.811	
10,600.00	10,539.04	10,600.74	10,532.01	40.92	43.23	-93.08	56.40	-1,218.95	217.94	140.87	77.07	2.828	
10,700.00	10,639.04	10,700.66	10,631.87	41.24	43.57	-92.72	57.58	-1,222.35	221.28	143.53	77.76	2.846	
10,800.00	10,739.04	10,801.91	10,733.05	41.56	43.91	-92.26	59.24	-1,225.38	224.21	145.79	78.42	2.859	
10,900.00	10,839.04	10,902.67	10,833.76	41.89	44.25	-91.79	61.00	-1,228.03	226.77	147.69	79.08	2.868	
11,000.00	10,938.95	11,003.64	10,934.71	42.20	44.58	89.60	62.16	-1,229.98	228.64	148.91	79.73	2.868	
11,100.00	11,037.16	11,101.74	11,032.78	42.50	44.90	93.91	62.77	-1,232.12	231.44	151.07	80.37	2.880	
11,200.00	11,130.73	11,200.10	11,131.14	42.77	45.21	101.60	62.73	-1,233.00	237.48	156.35	81.13	2.927	
11,300.00	11,216.80	11,289.86	11,220.89	43.01	45.47	110.42	62.21	-1,232.16	252.58	170.14	82.44	3.064	
11,400.00	11,292.78	11,366.84	11,297.86	43.23	45.69	117.73	61.71	-1,230.88	283.83	199.54	84.29	3.367	
11,500.00	11,356.34	11,430.10	11,361.11	43.41	45.86	121.90	61.53	-1,229.67	334.00	247.84	86.16	3.876	
11,600.00	11,405.56	11,478.91	11,409.91	43.59	45.99	121.86	61.58	-1,228.64	401.29	313.66	87.62	4.580	
11,700.00	11,438.94	11,511.93	11,442.91	43.79	46.09	115.99	61.65	-1,227.92	481.54	392.91	88.62	5.434	
11,800.00	11,455.47	11,528.08	11,459.06	44.02	46.13	101.22	61.70	-1,227.57	570.23	480.97	89.25	6.389	
11,900.00	11,458.23	11,530.53	11,461.51	44.31	46.14	93.42	61.71	-1,227.51	663.14	573.50	89.64	7.398	
12,000.00	11,459.87	11,531.87	11,462.85	44.67	46.14	93.76	61.71	-1,227.48	757.90	667.98	89.91	8.429	
12,100.00	11,461.51	11,533.19	11,464.18	45.08	46.14	94.09	61.71	-1,227.45	853.85	763.74	90.11	9.476	
12,200.00	11,463.15	11,534.52	11,465.50	45.56	46.15	94.43	61.72	-1,227.42	950.63	860.37	90.26	10.532	
12,300.00	11,464.79	13,252.36	12,386.91	46.10	50.61	165.71	-970.66	-1,226.63	951.58	897.92	53.66	17.734	
12,400.00	11,466.43	13,360.32	12,385.65	46.69	51.15	165.59	-1,078.62	-1,226.98	949.21	895.04	54.17	17.523	
12,500.00	11,468.07	13,525.98	12,376.27	47.33	52.11	165.30	-1,243.97	-1,227.20	942.43	887.35	55.08	17.109	
12,600.00	11,469.72	13,623.86	12,366.42	48.02	52.75	165.08	-1,341.35	-1,226.94	931.30	875.63	55.67	16.729	
12,700.00	11,471.36	13,706.13	12,360.07	48.77	53.32	164.89	-1,423.37	-1,227.29	922.51	866.32	56.20	16.416	
12,800.00	11,473.00	13,813.05	12,351.93	49.55	54.10	164.68	-1,529.98	-1,227.18	913.79	856.84	56.95	16.045	
12,900.00	11,474.64	13,908.75	12,344.32	50.38	54.84	164.49	-1,625.38	-1,226.91	904.73	847.05	57.68	15.686	
13,000.00	11,476.28	13,991.12	12,338.76	51.25	55.51	164.33	-1,707.56	-1,226.81	896.90	838.51	58.39	15.361	
13,100.00	11,477.92	14,067.20	12,335.61	52.16	56.14	164.22	-1,783.57	-1,226.67	891.53	832.37	59.16	15.070	
13,200.00	11,479.56	14,145.00	12,334.48	53.10	56.80	164.13	-1,861.36	-1,226.68	888.80	828.76	60.03	14.805	
13,300.00	11,481.20	14,247.54	12,334.22	54.08	57.71	164.02	-1,963.90	-1,226.87	887.27	826.31	60.96	14.555	
13,400.00	11,482.84	14,363.90	12,331.91	55.09	58.79	163.88	-2,080.23	-1,226.88	883.97	822.03	61.94	14.271	
13,500.00	11,484.48	14,452.42	12,330.67	56.14	59.63	163.85	-2,168.74	-1,225.83	880.97	818.06	62.92	14.002	
13,600.00	11,486.12	14,547.71	12,330.36	57.21	60.56	163.82	-2,264.01	-1,224.77	879.03	815.10	63.93	13.749	
13,700.00	11,487.76	14,653.67	12,329.64	58.30	61.62	163.81	-2,369.97	-1,223.38	876.68	811.71	64.97	13.493	
13,800.00	11,489.40	14,747.41	12,329.06	59.43	62.59	163.81	-2,463.69	-1,221.85	874.33	808.29	66.04	13.239	
13,900.00	11,491.04	14,840.32	12,329.66	60.57	63.57	163.83	-2,556.58	-1,220.34	873.16	806.02	67.13	13.006	
14,000.00	11,492.68	14,940.16	12,330.29	61.75	64.65	163.88	-2,656.40	-1,218.44	871.91	803.67	68.24	12.777	
14,064.56	11,493.74	14,996.00	12,330.73	62.51	65.27	163.85	-2,712.24	-1,218.26	871.50	802.50	69.01	12.629	
14,100.00	11,494.32	15,021.34	12,331.17	62.94	65.55	163.83	-2,737.58	-1,218.32	871.67	802.22	69.45	12.551	
14,200.00	11,495.96	15,090.00	12,334.49	64.15	66.32	163.86	-2,806.15	-1,217.88	874.76	804.03	70.73	12.368	
14,300.00	11,497.60	15,233.08	12,340.10	65.38	67.97	163.93	-2,949.07	-1,216.30	876.83	805.07	71.76	12.218	
14,329.50	11,498.09	15,261.07	12,340.64	65.75	68.29	163.96	-2,977.05	-1,215.65	876.81	804.69	72.11	12.159	
14,400.00	11,499.24	15,332.04	12,342.44	66.63	69.12	164.10	-3,047.95	-1,212.99	876.86	803.96	72.90	12.028	
14,500.00	11,500.89	15,432.60	12,344.56	67.90	70.31	164.26	-3,148.42	-1,209.60	876.64	802.59	74.06	11.837	
14,522.08	11,501.25	15,453.72	12,344.98	68.18	70.56	164.28	-3,169.53	-1,209.08	876.63	802.31	74.32	11.795	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 14H (Well F) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,600.00	11,502.53	15,518.85	12,346.60	69.18	71.35	164.34	-3,234.63	-1,207.75	877.06	801.76	75.30	11.648	
14,700.00	11,504.17	15,630.93	12,351.26	70.48	72.72	164.49	-3,346.58	-1,205.09	879.24	802.77	76.47	11.497	
14,800.00	11,505.81	15,734.37	12,352.03	71.79	74.01	164.53	-3,449.99	-1,203.18	878.10	800.36	77.74	11.296	
14,813.95	11,506.04	15,745.65	12,352.22	71.98	74.15	164.54	-3,461.27	-1,202.98	878.07	800.16	77.92	11.269	
14,900.00	11,507.45	15,821.58	12,354.19	73.12	75.10	164.60	-3,537.16	-1,201.59	878.65	799.63	79.02	11.119	
15,000.00	11,509.09	15,928.50	12,357.20	74.46	76.47	164.62	-3,644.03	-1,200.52	879.78	799.45	80.33	10.952	
15,100.00	11,510.73	16,006.01	12,358.77	75.81	77.47	164.51	-3,721.51	-1,201.70	880.95	799.18	81.77	10.774	
15,200.00	11,512.37	16,081.09	12,363.18	77.18	78.45	164.45	-3,796.45	-1,202.80	885.56	802.35	83.21	10.642	
15,300.00	11,514.01	16,178.04	12,370.44	78.55	79.73	164.41	-3,893.12	-1,204.09	891.80	807.18	84.62	10.539	
15,400.00	11,515.65	16,277.57	12,377.28	79.94	81.05	164.37	-3,992.40	-1,205.28	897.41	811.37	86.04	10.430	
15,500.00	11,517.29	16,355.89	12,383.84	81.34	82.11	164.36	-4,070.44	-1,206.22	904.52	817.04	87.48	10.339	
15,600.00	11,518.93	16,437.83	12,393.30	82.74	83.21	164.40	-4,151.83	-1,207.11	914.49	825.60	88.89	10.288	
15,700.00	11,520.57	16,546.15	12,404.76	84.15	84.69	164.43	-4,259.53	-1,208.33	923.60	833.32	90.28	10.231	
15,800.00	11,522.21	16,639.66	12,415.81	85.58	85.97	164.47	-4,352.37	-1,209.54	933.96	842.28	91.68	10.187	
15,900.00	11,523.85	16,743.26	12,427.31	87.01	87.40	164.61	-4,455.33	-1,208.90	943.14	850.14	93.00	10.141	
16,000.00	11,525.49	16,832.78	12,438.41	88.45	88.64	164.75	-4,544.16	-1,208.29	953.56	859.24	94.33	10.109	
16,100.00	11,527.13	16,953.55	12,452.84	89.89	90.33	164.93	-4,664.06	-1,207.53	963.70	868.06	95.63	10.077	
16,200.00	11,528.77	17,068.53	12,463.52	91.34	91.94	165.04	-4,778.53	-1,206.91	971.15	874.14	97.01	10.011	
16,300.00	11,530.42	17,157.08	12,471.72	92.80	93.20	165.12	-4,866.71	-1,206.36	978.61	880.21	98.39	9.946	
16,400.00	11,532.06	17,254.86	12,481.63	94.27	94.58	165.25	-4,963.97	-1,205.48	986.83	887.08	99.76	9.892	
16,500.00	11,533.70	17,365.56	12,492.37	95.74	96.16	165.38	-5,074.14	-1,204.41	994.64	893.51	101.13	9.835	
16,600.00	11,535.34	17,497.08	12,502.23	97.22	98.05	165.49	-5,205.29	-1,203.28	1,000.36	897.79	102.57	9.753	
16,700.00	11,536.98	17,613.97	12,507.50	98.70	99.74	165.52	-5,322.06	-1,202.50	1,003.15	899.09	104.06	9.640	
16,800.00	11,538.62	17,706.68	12,511.32	100.19	101.08	165.53	-5,414.68	-1,202.08	1,005.68	900.13	105.55	9.528	
16,900.00	11,540.26	17,817.96	12,516.17	101.68	102.70	165.56	-5,525.86	-1,201.30	1,008.39	901.35	107.05	9.420	
17,000.00	11,541.90	17,917.00	12,519.68	103.18	104.15	165.56	-5,624.83	-1,200.85	1,010.35	901.79	108.56	9.307	
17,100.00	11,543.54	17,988.97	12,523.32	104.68	105.20	165.58	-5,696.70	-1,200.47	1,013.76	903.75	110.01	9.215	
17,200.00	11,545.18	18,074.51	12,529.72	106.19	106.46	165.64	-5,782.00	-1,199.77	1,019.41	907.98	111.43	9.149	
17,300.00	11,546.82	18,178.12	12,537.99	107.70	107.99	165.73	-5,885.28	-1,198.90	1,025.59	912.71	112.88	9.086	
17,400.00	11,548.46	18,268.96	12,545.09	109.22	109.34	165.80	-5,975.84	-1,198.23	1,031.64	917.33	114.31	9.025	
17,500.00	11,550.10	18,343.17	12,552.17	110.74	110.44	165.88	-6,049.70	-1,197.58	1,039.37	923.71	115.66	8.987	
17,600.00	11,551.74	18,426.74	12,562.47	112.26	111.69	166.00	-6,132.63	-1,196.83	1,049.68	932.69	116.98	8.973	
17,700.00	11,553.38	18,525.72	12,574.73	113.79	113.17	166.14	-6,230.85	-1,195.91	1,060.11	941.76	118.36	8.957	
17,800.00	11,555.02	18,678.85	12,592.02	115.32	115.46	166.33	-6,382.97	-1,194.41	1,070.12	950.17	119.95	8.921	
17,877.95	11,556.30	18,817.72	12,595.74	116.52	117.54	166.36	-6,521.74	-1,192.88	1,069.74	948.43	121.30	8.819	
17,900.00	11,556.66	18,834.39	12,596.06	116.85	117.79	166.36	-6,538.41	-1,192.74	1,069.79	948.16	121.63	8.795	
18,000.00	11,558.30	18,925.04	12,598.60	118.39	119.16	166.37	-6,629.02	-1,192.13	1,070.96	947.80	123.16	8.696	
18,100.00	11,559.94	19,030.24	12,601.63	119.93	120.75	166.38	-6,734.17	-1,191.23	1,072.19	947.47	124.71	8.597	
18,200.00	11,561.59	19,139.00	12,604.02	121.47	122.39	166.40	-6,842.90	-1,189.97	1,072.67	946.40	126.27	8.495	
18,300.00	11,563.23	19,231.91	12,605.86	123.02	123.80	166.39	-6,935.79	-1,189.36	1,073.06	945.24	127.83	8.395	
18,400.00	11,564.87	19,336.55	12,607.68	124.57	125.39	166.30	-7,040.41	-1,190.12	1,073.55	944.04	129.50	8.290	
18,500.00	11,566.51	19,425.00	12,609.58	126.12	126.74	166.23	-7,128.83	-1,190.81	1,074.44	943.30	131.13	8.193	
18,600.00	11,568.15	19,538.62	12,611.78	127.67	128.48	166.14	-7,242.43	-1,191.60	1,075.10	942.25	132.85	8.092	
18,700.00	11,569.79	19,645.15	12,613.06	129.23	130.11	166.01	-7,348.94	-1,192.91	1,075.21	940.61	134.60	7.988	
18,800.00	11,571.43	19,779.78	12,611.69	130.79	132.17	165.83	-7,483.55	-1,194.29	1,073.11	936.68	136.43	7.866	
18,900.00	11,573.07	19,870.44	12,609.30	132.35	133.56	165.69	-7,574.17	-1,195.24	1,069.48	931.27	138.21	7.738	
19,000.00	11,574.71	19,969.82	12,607.84	133.91	135.09	165.55	-7,673.54	-1,196.25	1,066.94	926.95	139.99	7.622	
19,100.00	11,576.35	20,056.70	12,606.67	135.48	136.43	165.42	-7,760.40	-1,197.13	1,064.57	922.81	141.76	7.510	
19,200.00	11,577.99	20,143.54	12,607.26	137.04	137.77	165.40	-7,847.24	-1,196.66	1,063.72	920.32	143.40	7.418	
19,232.85	11,578.53	20,173.02	12,607.71	137.56	138.22	165.40	-7,876.71	-1,196.32	1,063.67	919.75	143.92	7.391	
19,300.00	11,579.63	20,237.90	12,608.90	138.61	139.23	165.41	-7,941.58	-1,195.60	1,063.76	918.77	144.99	7.337	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 14H (Well F) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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
19,400.00	11,581.27	20,390.31	12,608.38	140.18	141.59	165.36	-8,093.95	-1,194.36	1,062.06	915.39	146.67	7.241	
19,500.00	11,582.91	20,500.06	12,604.09	141.76	143.29	165.26	-8,203.62	-1,193.59	1,056.74	908.35	148.39	7.121	
19,600.00	11,584.55	20,600.89	12,599.81	143.33	144.86	165.19	-8,304.35	-1,192.55	1,051.02	900.90	150.12	7.001	
19,700.00	11,586.19	20,715.51	12,594.42	144.91	146.64	165.08	-8,418.84	-1,191.50	1,044.94	893.11	151.83	6.882	
19,800.00	11,587.83	20,831.40	12,586.64	146.48	148.45	164.94	-8,534.47	-1,190.48	1,036.86	883.29	153.57	6.752	
19,900.00	11,589.47	20,978.40	12,571.75	148.06	150.74	164.71	-8,680.68	-1,188.66	1,025.20	870.09	155.11	6.609	
20,000.00	11,591.11	21,084.74	12,558.50	149.65	152.39	164.50	-8,786.18	-1,187.53	1,011.57	854.60	156.97	6.444	
20,100.00	11,592.76	21,188.00	12,544.97	151.23	154.00	164.27	-8,888.55	-1,186.40	997.33	838.45	158.88	6.277	
20,200.00	11,594.40	21,285.23	12,532.07	152.81	155.52	164.05	-8,984.91	-1,185.41	982.96	822.07	160.89	6.110	
20,300.00	11,596.04	21,379.97	12,519.86	154.40	157.00	163.83	-9,078.85	-1,184.37	968.96	806.02	162.94	5.947	
20,400.00	11,597.68	21,471.60	12,508.61	155.98	158.43	163.63	-9,169.79	-1,183.32	955.53	790.50	165.03	5.790	
20,500.00	11,599.32	21,553.58	12,499.54	157.57	159.72	163.46	-9,251.25	-1,182.31	943.30	776.09	167.21	5.641	
20,600.00	11,600.96	21,642.89	12,491.42	159.16	161.12	163.30	-9,340.19	-1,181.39	932.95	763.65	169.30	5.511	
20,700.00	11,602.60	21,725.52	12,484.47	160.75	162.42	163.17	-9,422.51	-1,180.32	923.31	751.90	171.41	5.387	
20,800.00	11,604.24	21,796.99	12,480.87	162.35	163.54	163.11	-9,493.89	-1,179.31	916.71	743.24	173.47	5.284	
20,900.00	11,605.88	21,885.54	12,478.18	163.94	164.94	163.05	-9,582.39	-1,178.11	912.12	736.77	175.35	5.202	
21,000.00	11,607.52	21,974.82	12,476.37	165.53	166.34	162.97	-9,671.65	-1,177.65	908.73	731.46	177.27	5.126	
21,100.00	11,609.16	22,064.82	12,475.21	167.13	167.76	162.82	-9,761.64	-1,178.50	906.48	727.16	179.32	5.055	
21,200.00	11,610.80	22,166.54	12,474.32	168.73	169.37	162.63	-9,863.34	-1,179.88	904.75	723.34	181.41	4.987	
21,300.00	11,612.44	22,276.98	12,472.56	170.32	171.11	162.49	-9,973.76	-1,180.12	901.98	718.59	183.39	4.918	
21,400.00	11,614.08	22,377.47	12,471.37	171.92	172.70	162.42	-10,074.25	-1,179.46	899.37	714.11	185.26	4.855	
21,500.00	11,615.72	22,510.32	12,466.40	173.52	174.80	162.26	-10,206.99	-1,178.61	894.29	707.24	187.05	4.781	
21,600.00	11,617.36	22,596.00	12,461.33	175.12	176.16	162.11	-10,292.52	-1,178.18	887.38	698.13	189.25	4.689	
21,638.81	11,618.00	22,596.00	12,461.33	175.74	176.16	162.11	-10,292.52	-1,178.18	886.21	696.06	190.16	4.660	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 16H (Well H) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	24.00	0.00	0.00	128.44	-79.83	100.58	130.63				
100.00	100.00	75.90	99.90	0.27	0.19	128.44	-79.84	100.60	128.43	127.98	0.45	282.324	
200.00	200.00	175.68	199.68	0.63	0.54	128.45	-79.95	100.71	128.59	127.42	1.17	109.803	
300.00	300.00	275.89	299.88	0.99	0.90	128.53	-80.26	100.80	128.85	126.96	1.88	68.407	
400.00	400.00	376.16	400.16	1.34	1.25	128.83	-80.77	100.34	128.81	126.22	2.59	49.696	
500.00	500.00	476.63	500.62	1.70	1.60	129.21	-81.25	99.57	128.52	125.21	3.30	38.921	
600.00	600.00	576.97	600.95	2.06	1.95	129.81	-81.89	98.24	127.90	123.89	4.01	31.865	
700.00	700.00	677.29	701.25	2.42	2.31	130.60	-82.67	96.47	127.05	122.33	4.73	26.874	
800.00	800.00	777.11	801.05	2.78	2.66	131.28	-83.09	94.64	125.95	120.51	5.44	23.162	
858.32	858.32	834.38	858.32	2.99	2.86	131.42	-83.15	94.27	125.70	119.86	5.85	21.506	
900.00	900.00	875.98	899.93	3.14	3.00	131.40	-83.15	94.30	125.73	119.59	6.14	20.489	
1,000.00	1,000.00	976.15	1,000.09	3.50	3.34	131.36	-83.09	94.40	125.76	118.92	6.84	18.394	
1,100.00	1,100.00	1,076.10	1,100.04	3.85	3.69	131.38	-83.04	94.26	125.62	118.08	7.54	16.655	
1,109.22	1,109.22	1,085.28	1,109.22	3.89	3.72	131.39	-83.05	94.25	125.62	118.01	7.61	16.512 CC	
1,200.00	1,200.00	1,175.68	1,199.62	4.21	4.04	131.48	-83.30	94.23	125.77	117.52	8.25	15.246	
1,300.00	1,300.00	1,275.21	1,299.13	4.57	4.38	130.72	-82.32	95.65	126.20	117.24	8.95	14.097 ES	
1,400.00	1,400.00	1,374.08	1,397.88	4.93	4.72	128.58	-79.42	99.55	127.37	117.72	9.65	13.200	
1,500.00	1,500.00	1,473.14	1,496.59	5.29	5.06	125.04	-74.38	106.05	129.58	119.23	10.35	12.521	
1,600.00	1,599.98	1,572.59	1,595.60	5.64	5.41	-134.33	-68.48	113.34	133.71	122.67	11.04	12.107	
1,700.00	1,699.84	1,671.80	1,694.35	5.97	5.77	-139.44	-62.29	120.68	141.15	129.42	11.73	12.030	
1,800.00	1,799.45	1,769.80	1,791.86	6.32	6.12	-144.78	-55.84	127.91	152.34	139.92	12.42	12.265	
1,900.00	1,898.76	1,866.32	1,887.79	6.67	6.47	-150.24	-48.66	135.94	168.04	154.94	13.10	12.826	
2,000.00	1,998.01	1,963.19	1,983.96	7.03	6.83	-155.08	-40.97	144.56	185.94	172.16	13.78	13.490	
2,100.00	2,097.27	2,060.21	2,080.25	7.39	7.20	-159.17	-32.92	153.34	205.04	190.57	14.47	14.171	
2,200.00	2,196.52	2,155.18	2,174.45	7.76	7.56	-162.54	-24.90	162.31	225.38	210.24	15.14	14.887	
2,300.00	2,295.78	2,250.41	2,268.83	8.14	7.92	-165.31	-17.12	172.36	247.44	231.63	15.81	15.648	
2,400.00	2,395.03	2,346.30	2,363.80	8.51	8.30	-167.70	-8.98	182.82	270.36	253.87	16.49	16.392	
2,500.00	2,494.29	2,442.92	2,459.43	8.89	8.67	-169.81	-0.42	193.59	293.93	276.74	17.18	17.104	
2,600.00	2,593.54	2,538.89	2,554.47	9.27	9.05	-171.48	7.43	204.34	317.80	299.93	17.87	17.783	
2,700.00	2,692.80	2,639.94	2,654.58	9.66	9.45	178.71	15.57	215.47	341.67	323.06	18.60	18.365	
2,800.00	2,792.07	2,737.81	2,751.73	10.04	9.83	164.60	22.08	225.35	364.34	345.02	19.31	18.866	
2,900.00	2,891.33	2,830.10	2,843.31	10.43	10.19	164.45	27.65	235.35	387.57	367.60	19.97	19.404	
3,000.00	2,990.58	2,932.98	2,945.37	10.82	10.60	164.38	33.34	246.94	411.15	390.42	20.73	19.836	
3,100.00	3,089.84	3,034.01	3,045.79	11.21	10.99	164.42	37.93	256.98	433.28	411.81	21.46	20.187	
3,200.00	3,189.09	3,129.78	3,141.00	11.60	11.36	164.45	42.35	266.32	455.23	433.08	22.16	20.545	
3,300.00	3,288.35	3,232.35	3,243.00	11.99	11.76	164.44	47.32	275.97	476.90	453.99	22.91	20.820	
3,400.00	3,387.60	3,333.69	3,343.85	12.38	12.15	164.42	52.20	284.64	497.72	474.08	23.64	21.052	
3,500.00	3,486.86	3,440.50	3,450.25	12.78	12.55	164.39	57.15	292.56	517.43	493.01	24.42	21.193	
3,600.00	3,586.11	3,552.66	3,562.13	13.17	12.97	164.30	62.63	298.20	534.83	509.62	25.21	21.215	
3,700.00	3,685.37	3,670.38	3,679.75	13.57	13.39	164.39	66.15	301.19	549.57	523.56	26.01	21.129	
3,800.00	3,784.62	3,776.26	3,785.62	13.97	13.75	164.56	68.03	300.98	561.37	534.62	26.74	20.991	
3,900.00	3,883.88	3,874.06	3,883.40	14.36	14.08	164.70	69.71	300.64	573.04	545.59	27.45	20.879	
4,000.00	3,983.13	3,971.85	3,981.18	14.76	14.41	164.84	71.52	300.58	585.01	556.86	28.15	20.782	
4,100.00	4,082.39	4,070.16	4,079.46	15.16	14.75	164.92	73.79	300.65	597.19	568.33	28.86	20.694	
4,200.00	4,181.64	4,169.45	4,178.72	15.56	15.10	165.03	75.84	300.84	609.45	579.88	29.57	20.610	
4,300.00	4,280.90	4,268.41	4,277.68	15.96	15.44	165.21	77.05	301.16	621.72	591.44	30.28	20.530	
4,400.00	4,380.15	4,366.14	4,375.39	16.36	15.78	165.38	78.37	301.62	634.17	603.18	30.99	20.463	
4,500.00	4,479.40	4,467.90	4,477.15	16.76	16.13	165.51	80.10	301.94	646.51	614.79	31.72	20.385	
4,600.00	4,578.66	4,569.38	4,578.61	17.16	16.48	165.62	81.97	301.88	658.50	626.06	32.44	20.300	
4,700.00	4,677.91	4,672.03	4,681.22	17.56	16.83	165.69	84.19	301.35	670.09	636.93	33.16	20.207	
4,800.00	4,777.17	4,777.16	4,786.35	17.96	17.18	165.92	84.47	300.39	681.05	647.16	33.88	20.100	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 16H (Well H) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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	4,876.42	4,881.85	4,891.03	18.36	17.52	166.22	83.73	298.57	691.07	656.47	34.60	19.975	
5,000.00	4,975.68	4,981.21	4,990.36	18.76	17.85	166.48	83.19	296.44	700.73	665.44	35.29	19.854	
5,100.00	5,074.93	5,080.37	5,089.50	19.17	18.17	166.74	82.61	294.49	710.58	674.59	35.99	19.743	
5,200.00	5,174.19	5,180.12	5,189.22	19.57	18.50	167.00	81.91	292.48	720.38	683.69	36.69	19.633	
5,300.00	5,273.44	5,281.15	5,290.23	19.97	18.83	167.26	81.10	290.37	730.11	692.72	37.40	19.524	
5,400.00	5,372.70	5,381.49	5,390.53	20.37	19.16	167.52	80.15	288.08	739.65	701.55	38.10	19.414	
5,500.00	5,471.95	5,482.21	5,491.23	20.78	19.49	167.79	79.07	285.67	749.08	710.28	38.80	19.304	
5,600.00	5,571.21	5,570.81	5,579.80	21.18	19.79	168.00	78.49	284.01	759.10	719.63	39.47	19.233	
5,700.00	5,670.46	5,664.40	5,673.39	21.58	20.11	168.14	78.83	283.34	770.34	730.18	40.15	19.185	
5,800.00	5,769.72	5,763.01	5,772.00	21.99	20.45	168.28	79.43	282.99	781.97	741.11	40.86	19.137	
5,900.00	5,868.97	5,861.41	5,870.39	22.39	20.79	168.41	80.00	282.70	793.67	752.10	41.57	19.092	
6,000.00	5,968.23	5,960.57	5,969.55	22.79	21.13	168.54	80.58	282.48	805.45	763.16	42.28	19.048	
6,100.00	6,067.48	6,058.00	6,066.98	23.20	21.47	168.68	81.04	282.41	817.36	774.37	42.99	19.013	
6,200.00	6,166.74	6,157.72	6,166.70	23.60	21.82	168.81	81.49	282.42	829.36	785.65	43.71	18.976	
6,300.00	6,265.99	6,256.29	6,265.27	24.01	22.17	168.93	82.08	282.43	841.37	796.95	44.42	18.942	
6,400.00	6,365.25	6,355.89	6,364.87	24.41	22.52	169.05	82.72	282.42	853.38	808.24	45.14	18.907	
6,500.00	6,464.50	6,453.91	6,462.88	24.82	22.86	169.15	83.41	282.50	865.48	819.63	45.85	18.878	
6,600.00	6,563.76	6,553.45	6,562.42	25.22	23.21	169.24	84.33	282.60	877.61	831.05	46.56	18.847	
6,700.00	6,663.01	6,652.91	6,661.88	25.63	23.56	169.32	85.37	282.69	889.75	842.47	47.28	18.818	
6,800.00	6,762.27	6,753.56	6,762.53	26.03	23.91	169.41	86.34	282.65	901.76	853.75	48.01	18.785	
6,900.00	6,861.52	6,853.62	6,862.57	26.44	24.26	169.49	87.25	282.53	913.68	864.95	48.73	18.751	
7,000.00	6,960.78	6,953.09	6,962.05	26.84	24.61	169.57	88.14	282.31	925.51	876.07	49.44	18.719	
7,100.00	7,060.03	7,052.88	7,061.83	27.25	24.96	169.66	88.95	282.13	937.37	887.21	50.16	18.687	
7,200.00	7,159.29	7,154.04	7,162.99	27.65	25.32	169.75	89.68	281.79	949.07	898.18	50.89	18.650	
7,300.00	7,258.54	7,254.22	7,263.17	28.06	25.67	169.83	90.36	281.29	960.62	909.01	51.61	18.614	
7,400.00	7,357.80	7,353.29	7,362.24	28.46	26.01	169.94	90.64	280.80	972.14	919.82	52.32	18.582	
7,500.00	7,457.05	7,451.97	7,460.91	28.87	26.35	170.06	90.72	280.37	983.72	930.69	53.02	18.552	
7,600.00	7,556.31	7,549.80	7,558.74	29.27	26.69	170.17	90.82	280.05	995.40	941.67	53.73	18.526	
7,700.00	7,655.56	7,645.08	7,654.02	29.68	27.02	170.27	91.08	279.97	1,007.34	952.92	54.42	18.509	
7,800.00	7,754.82	7,744.13	7,753.07	30.08	27.37	170.36	91.52	280.15	1,019.56	964.42	55.14	18.491	
7,900.00	7,854.07	7,838.77	7,847.71	30.49	27.70	170.44	92.06	280.46	1,031.93	976.10	55.83	18.483	
8,000.00	7,953.33	7,938.15	7,947.08	30.90	28.05	170.51	92.81	281.06	1,044.59	988.04	56.55	18.472	
8,100.00	8,052.58	8,038.97	8,047.89	31.30	28.41	170.58	93.66	281.55	1,057.13	999.86	57.28	18.457	
8,200.00	8,151.84	8,137.30	8,146.22	31.71	28.76	170.65	94.36	281.98	1,069.63	1,011.64	57.99	18.446	
8,300.00	8,251.09	8,233.74	8,242.66	32.11	29.10	170.70	95.27	282.58	1,082.31	1,023.62	58.69	18.441	
8,400.00	8,350.35	8,332.87	8,341.77	32.52	29.45	170.74	96.57	283.32	1,095.14	1,035.73	59.41	18.434	
8,500.00	8,449.60	8,438.63	8,447.52	32.93	29.82	170.76	98.14	283.74	1,107.63	1,047.47	60.16	18.410	
8,600.00	8,548.86	8,541.58	8,550.46	33.33	30.19	170.78	99.90	283.65	1,119.65	1,058.75	60.90	18.384	
8,700.00	8,648.11	8,642.00	8,650.85	33.74	30.54	170.76	102.13	283.36	1,131.49	1,069.86	61.63	18.360	
8,800.00	8,747.37	8,743.10	8,751.92	34.15	30.90	170.74	104.59	282.93	1,143.21	1,080.85	62.36	18.333	
8,900.00	8,846.62	8,845.39	8,854.18	34.55	31.26	170.71	107.20	282.28	1,154.73	1,091.63	63.09	18.302	
9,000.00	8,945.88	8,949.35	8,958.11	34.96	31.63	170.70	109.24	281.32	1,165.92	1,102.09	63.83	18.265	
9,100.00	9,045.13	9,053.33	9,062.07	35.36	32.00	170.73	110.63	279.95	1,176.71	1,112.13	64.57	18.223	
9,200.00	9,144.39	9,155.11	9,163.83	35.77	32.35	170.76	112.04	278.30	1,187.20	1,121.89	65.30	18.180	
9,300.00	9,243.64	9,258.05	9,266.74	36.18	32.71	170.78	113.56	276.40	1,197.46	1,131.42	66.03	18.134	
9,400.00	9,342.90	9,361.31	9,369.96	36.58	33.07	170.79	115.28	274.15	1,207.40	1,140.63	66.77	18.084	
9,500.00	9,442.15	9,461.36	9,469.97	36.99	33.42	170.79	117.02	271.81	1,217.18	1,149.69	67.49	18.036	
9,600.00	9,541.40	9,560.37	9,568.94	37.40	33.77	170.80	118.74	269.44	1,226.91	1,158.71	68.20	17.990	
9,700.00	9,640.66	9,656.74	9,665.27	37.80	34.10	170.80	120.37	267.39	1,236.90	1,168.00	68.91	17.951	
9,800.00	9,739.91	9,758.58	9,767.07	38.21	34.46	170.81	122.16	265.13	1,246.81	1,177.17	69.63	17.905	
9,900.00	9,839.36	9,851.00	9,859.45	38.61	34.78	170.82	123.98	263.17	1,255.15	1,184.82	70.32	17.849	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 16H (Well H) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,939.11	9,935.50	9,943.93	38.98	35.08	170.81	125.44	262.32	1,261.13	1,190.17	70.96	17.772	
10,100.00	10,039.04	10,027.75	10,036.17	39.33	35.41	170.78	126.87	262.19	1,264.54	1,192.91	71.63	17.653	
10,200.00	10,139.04	10,120.22	10,128.63	39.65	35.74	87.26	128.62	262.55	1,265.48	1,193.19	72.29	17.506	
10,300.00	10,239.04	10,206.95	10,215.32	39.97	36.05	87.17	130.72	263.64	1,266.84	1,193.93	72.91	17.376	
10,400.00	10,339.04	10,300.30	10,308.62	40.28	36.38	87.05	133.27	265.52	1,268.99	1,195.43	73.56	17.250	
10,500.00	10,439.04	10,400.62	10,408.88	40.60	36.74	86.95	135.72	267.75	1,271.34	1,197.08	74.26	17.120	
10,600.00	10,539.04	10,492.79	10,501.00	40.92	37.07	86.86	137.87	270.12	1,274.03	1,199.13	74.90	17.009	
10,700.00	10,639.04	10,590.55	10,598.69	41.24	37.42	86.77	140.03	273.02	1,277.12	1,201.53	75.58	16.897	
10,800.00	10,739.04	10,691.88	10,699.95	41.56	37.78	86.69	141.92	276.08	1,280.24	1,203.95	76.29	16.782	
10,900.00	10,839.04	10,824.30	10,832.34	41.89	38.23	86.69	142.23	278.64	1,282.23	1,205.08	77.16	16.619	
11,000.00	10,938.95	10,941.92	10,949.94	42.20	38.62	-92.84	140.11	278.53	1,282.16	1,204.25	77.91	16.458	
11,065.42	11,003.58	11,010.74	11,018.74	42.39	38.85	-93.26	138.56	277.85	1,281.95	1,203.60	78.35	16.363	
11,100.00	11,037.16	11,043.88	11,051.86	42.50	38.96	-93.56	137.66	277.53	1,282.04	1,203.47	78.57	16.318	
11,200.00	11,130.73	11,157.76	11,165.67	42.77	39.34	-95.10	133.90	275.86	1,283.02	1,203.76	79.26	16.188	
11,300.00	11,216.80	11,239.29	11,247.12	43.01	39.61	-96.52	130.97	274.03	1,286.03	1,206.23	79.80	16.116	
11,400.00	11,292.78	11,310.80	11,318.58	43.23	39.85	-97.71	128.47	272.86	1,293.87	1,213.58	80.29	16.116	
11,500.00	11,356.34	11,374.27	11,382.00	43.41	40.06	-98.40	126.05	272.13	1,307.88	1,227.16	80.72	16.202	
11,600.00	11,405.56	11,428.16	11,435.85	43.59	40.24	-98.27	124.04	271.50	1,329.03	1,247.94	81.09	16.389	
11,700.00	11,438.94	11,464.52	11,472.18	43.79	40.36	-96.75	122.75	271.02	1,358.06	1,276.70	81.36	16.692	
11,800.00	11,455.47	11,483.35	11,491.00	44.02	40.42	-93.61	122.11	270.78	1,394.94	1,313.42	81.52	17.112	
11,900.00	11,458.23	11,489.08	11,496.73	44.31	40.44	-92.23	121.92	270.71	1,438.60	1,357.01	81.59	17.632	
12,000.00	11,459.87	11,493.70	11,501.34	44.67	40.45	-92.43	121.76	270.65	1,487.73	1,406.08	81.66	18.220	
12,100.00	11,461.51	11,498.27	11,505.91	45.08	40.47	-92.64	121.61	270.60	1,541.78	1,460.06	81.72	18.866	
12,200.00	11,463.15	13,133.73	12,384.48	45.56	45.63	-125.38	-900.00	303.62	1,591.03	1,510.60	80.43	19.780	
12,300.00	11,464.79	13,226.04	12,382.14	46.10	46.14	-125.30	-992.27	302.72	1,587.07	1,505.65	81.42	19.493	
12,400.00	11,466.43	13,325.38	12,380.70	46.69	46.73	-125.26	-1,091.59	301.25	1,583.33	1,500.81	82.51	19.189	
12,500.00	11,468.07	13,420.32	12,379.73	47.33	47.34	-125.24	-1,186.51	299.64	1,579.66	1,496.01	83.64	18.886	
12,600.00	11,469.72	13,505.04	12,379.23	48.02	47.92	-125.22	-1,271.22	298.74	1,576.74	1,492.00	84.75	18.605	
12,700.00	11,471.36	13,594.57	12,380.31	48.77	48.57	-125.25	-1,360.73	297.59	1,574.68	1,488.75	85.93	18.324	
12,800.00	11,473.00	13,695.08	12,384.19	49.55	49.35	-125.39	-1,461.12	294.66	1,572.84	1,485.61	87.23	18.031	
12,900.00	11,474.64	13,770.00	12,387.81	50.38	49.96	-125.53	-1,535.92	292.15	1,571.37	1,483.05	88.32	17.792	
12,953.65	11,475.52	13,820.41	12,390.28	50.85	50.39	-125.62	-1,586.25	290.99	1,571.00	1,481.96	89.04	17.644	
13,000.00	11,476.28	13,864.00	12,392.46	51.25	50.76	-125.68	-1,629.79	290.67	1,571.27	1,481.61	89.66	17.524	
13,100.00	11,477.92	13,956.66	12,396.50	52.16	51.58	-125.77	-1,722.36	290.79	1,572.18	1,481.10	91.08	17.262	
13,200.00	11,479.56	14,073.99	12,399.58	53.10	52.66	-125.82	-1,839.65	290.81	1,571.97	1,479.10	92.87	16.927	
13,235.57	11,480.14	14,102.42	12,400.26	53.45	52.93	-125.83	-1,868.06	290.83	1,571.89	1,478.52	93.37	16.836	
13,300.00	11,481.20	14,157.16	12,401.95	54.08	53.46	-125.86	-1,922.78	291.05	1,572.14	1,477.85	94.30	16.672	
13,400.00	11,482.84	14,279.14	12,405.12	55.09	54.67	-125.92	-2,044.71	291.31	1,572.16	1,475.88	96.28	16.329	
13,500.00	11,484.48	14,404.99	12,405.02	56.14	55.95	-125.87	-2,170.56	291.44	1,570.46	1,472.03	98.43	15.955	
13,600.00	11,486.12	14,480.35	12,404.19	57.21	56.75	-125.82	-2,245.92	291.72	1,568.51	1,468.55	99.96	15.691	
13,636.26	11,486.72	14,503.18	12,404.23	57.60	56.99	-125.81	-2,268.75	292.05	1,568.35	1,467.90	100.45	15.613	
13,700.00	11,487.76	14,556.67	12,404.83	58.30	57.57	-125.79	-2,322.22	293.15	1,568.71	1,467.20	101.51	15.453	
13,800.00	11,489.40	14,648.77	12,406.67	59.43	58.59	-125.79	-2,414.30	294.35	1,569.27	1,465.96	103.31	15.190	
13,900.00	11,491.04	14,715.56	12,409.46	60.57	59.34	-125.83	-2,481.01	295.57	1,571.49	1,466.78	104.71	15.009	
14,000.00	11,492.68	14,822.73	12,415.44	61.75	60.58	-125.94	-2,588.00	297.29	1,574.34	1,467.62	106.73	14.751	
14,100.00	11,494.32	14,903.00	12,420.61	62.94	61.52	-126.03	-2,668.08	298.88	1,577.98	1,469.63	108.34	14.565	
14,200.00	11,495.96	15,029.17	12,427.93	64.15	63.03	-126.15	-2,794.00	301.86	1,581.69	1,470.94	110.75	14.282	
14,300.00	11,497.60	15,135.34	12,430.17	65.38	64.32	-126.13	-2,900.11	304.47	1,583.17	1,470.21	112.95	14.016	
14,400.00	11,499.24	15,209.93	12,434.09	66.63	65.24	-126.19	-2,974.58	305.95	1,586.12	1,471.54	114.58	13.843	
14,500.00	11,500.89	15,299.82	12,440.36	67.90	66.37	-126.31	-3,064.24	307.61	1,590.03	1,473.60	116.43	13.656	
14,600.00	11,502.53	15,390.92	12,447.28	69.18	67.53	-126.44	-3,155.05	309.73	1,594.68	1,476.36	118.32	13.478	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 16H (Well H) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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
14,700.00	11,504.17	15,513.28	12,455.40	70.48	69.11	-126.58	-3,277.10	312.64	1,598.84	1,478.04	120.80	13.235	
14,800.00	11,505.81	15,653.12	12,458.49	71.79	70.93	-126.55	-3,416.80	316.32	1,600.38	1,476.61	123.77	12.930	
14,900.00	11,507.45	15,760.00	12,458.33	73.12	72.34	-126.46	-3,523.63	319.19	1,600.71	1,474.47	126.24	12.680	
15,000.00	11,509.09	15,822.69	12,460.48	74.46	73.18	-126.47	-3,586.27	320.61	1,602.67	1,474.86	127.81	12.540	
15,100.00	11,510.73	15,907.09	12,464.63	75.81	74.31	-126.52	-3,670.53	322.99	1,606.12	1,476.37	129.75	12.379	
15,200.00	11,512.37	16,002.65	12,469.78	77.18	75.61	-126.57	-3,765.90	325.94	1,610.09	1,478.19	131.91	12.206	
15,300.00	11,514.01	16,147.26	12,475.93	78.55	77.58	-126.62	-3,910.32	330.05	1,613.38	1,478.33	135.05	11.947	
15,400.00	11,515.65	16,233.00	12,477.67	79.94	78.77	-126.60	-3,996.01	332.32	1,615.02	1,477.87	137.14	11.776	
15,500.00	11,517.29	16,327.00	12,479.67	81.34	80.07	-126.57	-4,089.94	335.47	1,617.26	1,477.83	139.43	11.599	
15,600.00	11,518.93	16,471.16	12,480.68	82.74	82.09	-126.47	-4,234.02	339.60	1,618.18	1,475.42	142.76	11.335	
15,700.00	11,520.57	16,591.01	12,479.81	84.15	83.77	-126.37	-4,353.86	341.69	1,617.46	1,471.82	145.64	11.106	
15,800.00	11,522.21	16,704.00	12,476.47	85.58	85.37	-126.21	-4,466.78	343.19	1,614.98	1,466.51	148.47	10.877	
15,900.00	11,523.85	16,781.50	12,474.45	87.01	86.48	-126.11	-4,544.24	344.24	1,612.97	1,462.35	150.62	10.709	
16,000.00	11,525.49	16,893.66	12,474.64	88.45	88.08	-126.06	-4,656.39	345.34	1,612.20	1,458.85	153.35	10.513	
16,100.00	11,527.13	17,016.16	12,472.20	89.89	89.85	-125.94	-4,778.86	345.88	1,609.61	1,453.26	156.36	10.295	
16,200.00	11,528.77	17,107.96	12,469.90	91.34	91.17	-125.84	-4,870.63	346.48	1,606.96	1,448.14	158.82	10.118	
16,300.00	11,530.42	17,205.21	12,468.41	92.80	92.59	-125.76	-4,967.87	346.78	1,604.61	1,443.24	161.36	9.944	
16,400.00	11,532.06	17,298.19	12,467.41	94.27	93.94	-125.70	-5,060.84	346.98	1,602.46	1,438.64	163.81	9.782	
16,500.00	11,533.70	17,388.37	12,467.63	95.74	95.26	-125.68	-5,151.02	347.21	1,601.08	1,434.90	166.18	9.635	
16,600.00	11,535.34	17,490.89	12,467.13	97.22	96.77	-125.62	-5,253.54	347.83	1,599.58	1,430.76	168.83	9.475	
16,700.00	11,536.98	17,580.20	12,467.65	98.70	98.09	-125.60	-5,342.84	348.29	1,598.62	1,427.43	171.19	9.338	
16,800.00	11,538.62	17,679.86	12,468.50	100.19	99.57	-125.58	-5,442.49	348.94	1,597.94	1,424.19	173.75	9.197	
16,900.00	11,540.26	17,783.36	12,468.54	101.68	101.10	-125.53	-5,545.98	350.10	1,597.17	1,420.72	176.45	9.052	
17,000.00	11,541.90	17,893.28	12,468.57	103.18	102.74	-125.49	-5,655.91	350.81	1,596.01	1,416.74	179.27	8.903	
17,100.00	11,543.54	18,009.98	12,467.15	104.68	104.49	-125.40	-5,772.60	351.35	1,593.99	1,411.71	182.28	8.745	
17,200.00	11,545.18	18,078.68	12,466.26	106.19	105.52	-125.34	-5,841.28	351.83	1,592.20	1,407.85	184.35	8.637	
17,300.00	11,546.82	18,198.85	12,467.19	107.70	107.34	-125.31	-5,961.43	353.32	1,592.16	1,404.77	187.39	8.496	
17,400.00	11,548.46	18,296.03	12,465.11	109.22	108.81	-125.19	-6,058.59	354.37	1,590.11	1,400.00	190.11	8.364	
17,500.00	11,550.10	18,402.97	12,462.78	110.74	110.43	-125.06	-6,165.49	355.82	1,588.28	1,395.23	193.05	8.227	
17,600.00	11,551.74	18,519.60	12,459.10	112.26	112.20	-124.90	-6,282.05	357.03	1,585.62	1,389.38	196.24	8.080	
17,700.00	11,553.38	18,629.31	12,453.48	113.79	113.88	-124.67	-6,391.61	358.42	1,582.03	1,382.63	199.39	7.934	
17,800.00	11,555.02	18,713.56	12,449.26	115.32	115.17	-124.50	-6,475.75	359.36	1,578.46	1,376.43	202.03	7.813	
17,900.00	11,556.66	18,779.00	12,448.09	116.85	116.17	-124.42	-6,541.17	360.20	1,576.82	1,372.68	204.13	7.724	
18,000.00	11,558.30	18,873.00	12,448.68	118.39	117.61	-124.39	-6,635.16	361.40	1,576.52	1,369.80	206.73	7.626	
18,100.00	11,559.94	18,995.23	12,449.48	119.93	119.48	-124.37	-6,757.38	361.91	1,575.54	1,365.66	209.88	7.507	
18,200.00	11,561.59	19,103.90	12,448.85	121.47	121.15	-124.31	-6,866.05	362.11	1,573.67	1,360.87	212.80	7.395	
18,300.00	11,563.23	19,218.58	12,446.45	123.02	122.92	-124.19	-6,980.70	362.49	1,571.09	1,355.15	215.94	7.275	
18,400.00	11,564.87	19,295.89	12,444.35	124.57	124.11	-124.10	-7,057.98	362.85	1,568.37	1,350.00	218.37	7.182	
18,500.00	11,566.51	19,374.29	12,445.19	126.12	125.33	-124.09	-7,136.38	363.42	1,567.79	1,347.15	220.64	7.106	
18,600.00	11,568.15	19,473.52	12,446.43	127.67	126.87	-124.09	-7,235.59	363.70	1,567.04	1,343.73	223.32	7.017	
18,611.43	11,568.33	19,481.37	12,446.64	127.85	126.99	-124.09	-7,243.44	363.71	1,567.03	1,343.49	223.54	7.010	
18,700.00	11,569.79	19,543.62	12,449.33	129.23	127.95	-124.15	-7,305.63	363.83	1,567.81	1,342.57	225.24	6.961	
18,800.00	11,571.43	19,628.00	12,454.94	130.79	129.27	-124.29	-7,389.82	364.08	1,570.10	1,342.78	227.32	6.907	
18,900.00	11,573.07	19,725.47	12,462.38	132.35	130.79	-124.48	-7,487.01	364.39	1,572.99	1,343.37	229.62	6.851	
19,000.00	11,574.71	19,824.86	12,470.05	133.91	132.34	-124.68	-7,586.09	364.64	1,575.90	1,343.95	231.94	6.794	
19,100.00	11,576.35	19,972.63	12,479.20	135.48	134.65	-124.90	-7,733.57	364.68	1,578.00	1,342.68	235.32	6.706	
19,200.00	11,577.99	20,099.96	12,479.59	137.04	136.64	-124.87	-7,860.89	364.91	1,576.52	1,337.88	238.64	6.606	
19,300.00	11,579.63	20,194.00	12,478.47	138.61	138.11	-124.80	-7,954.92	365.45	1,574.63	1,333.26	241.37	6.524	
19,400.00	11,581.27	20,289.00	12,477.63	140.18	139.60	-124.73	-8,049.91	366.34	1,573.20	1,329.08	244.12	6.444	
19,500.00	11,582.91	20,403.10	12,476.34	141.76	141.39	-124.63	-8,164.00	367.35	1,571.61	1,324.31	247.29	6.355	
19,600.00	11,584.55	20,501.93	12,475.34	143.33	142.94	-124.57	-8,262.83	367.64	1,569.58	1,319.45	250.12	6.275	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 16H (Well H) - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,700.00	11,586.19	20,600.42	12,474.02	144.91	144.49	-124.49	-8,361.31	368.27	1,567.65	1,314.67	252.99	6.197	
19,800.00	11,587.83	20,704.17	12,472.00	146.48	146.12	-124.37	-8,465.03	369.36	1,565.73	1,309.71	256.02	6.116	
19,900.00	11,589.47	20,797.01	12,469.03	148.06	147.59	-124.22	-8,557.81	370.79	1,563.54	1,304.61	258.93	6.039	
20,000.00	11,591.11	20,877.60	12,468.51	149.65	148.86	-124.16	-8,638.39	371.96	1,562.66	1,301.25	261.41	5.978	
20,100.00	11,592.76	20,975.36	12,468.81	151.23	150.40	-124.11	-8,736.14	373.20	1,562.20	1,297.99	264.20	5.913	
20,131.97	11,593.28	21,003.01	12,469.13	151.73	150.84	-124.11	-8,763.79	373.50	1,562.15	1,297.15	265.00	5.895	
20,200.00	11,594.40	21,043.00	12,469.91	152.81	151.47	-124.11	-8,803.77	373.88	1,562.48	1,296.28	266.21	5.869	
20,300.00	11,596.04	21,137.00	12,474.76	154.40	152.96	-124.21	-8,897.63	374.66	1,564.39	1,295.80	268.59	5.824	
20,400.00	11,597.68	21,205.15	12,480.51	155.98	154.04	-124.35	-8,965.53	375.26	1,568.01	1,297.83	270.19	5.803	
20,500.00	11,599.32	21,296.67	12,489.29	157.57	155.50	-124.57	-9,056.62	376.17	1,572.57	1,300.36	272.21	5.777	
20,600.00	11,600.96	21,389.27	12,498.99	159.16	156.97	-124.82	-9,148.71	376.94	1,577.55	1,303.36	274.19	5.754	
20,700.00	11,602.60	21,559.36	12,512.47	160.75	159.67	-125.13	-9,318.20	378.68	1,581.71	1,303.63	278.08	5.688	
20,800.00	11,604.24	21,763.42	12,504.64	162.35	162.92	-124.79	-9,521.97	381.24	1,578.43	1,294.94	283.49	5.568	
20,900.00	11,605.88	21,890.44	12,490.91	163.94	164.93	-124.30	-9,648.24	382.95	1,571.65	1,284.00	287.66	5.464	
21,000.00	11,607.52	21,978.22	12,480.94	165.53	166.33	-123.95	-9,735.44	384.07	1,564.62	1,273.52	291.10	5.375	
21,100.00	11,609.16	22,082.97	12,469.20	167.13	167.99	-123.53	-9,839.52	385.57	1,557.88	1,262.99	294.89	5.283	
21,200.00	11,610.80	22,173.00	12,459.02	168.73	169.43	-123.16	-9,928.96	386.74	1,551.07	1,252.67	298.40	5.198	
21,300.00	11,612.44	22,267.00	12,448.86	170.32	170.92	-122.78	-10,022.40	388.35	1,544.94	1,242.94	302.00	5.116	
21,400.00	11,614.08	22,371.41	12,437.53	171.92	172.59	-122.35	-10,126.16	390.44	1,539.10	1,233.26	305.85	5.032	
21,500.00	11,615.72	22,471.14	12,426.36	173.52	174.18	-121.92	-10,225.25	392.40	1,533.13	1,223.49	309.64	4.951	
21,600.00	11,617.36	22,532.00	12,419.42	175.12	175.15	-121.66	-10,285.71	393.37	1,527.43	1,214.90	312.52	4.887	
21,638.81	11,618.00	22,532.00	12,419.42	175.74	175.15	-121.66	-10,285.71	393.37	1,526.57	1,213.67	312.90	4.879 SF	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 2H (Well C) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	24.00	0.00	0.00	100.21	-19.81	110.03	114.35				
100.00	100.00	76.45	100.45	0.27	0.12	100.10	-19.59	109.91	111.65	111.26	0.39	288.503	
200.00	200.00	177.09	201.08	0.63	0.29	99.66	-18.62	109.40	110.98	110.07	0.91	121.533	
300.00	300.00	277.91	301.88	0.99	0.65	98.95	-17.04	108.21	109.56	107.93	1.63	67.066	
400.00	400.00	378.03	401.98	1.34	1.01	98.25	-15.45	106.62	107.75	105.40	2.35	45.833	
500.00	500.00	477.81	501.74	1.70	1.37	97.58	-13.98	105.06	106.00	102.94	3.07	34.563	
600.00	600.00	577.29	601.20	2.06	1.72	97.07	-12.88	103.80	104.61	100.82	3.78	27.660	
700.00	700.00	676.84	700.75	2.42	2.08	96.60	-11.91	103.03	103.72	99.23	4.50	23.066	
800.00	800.00	776.87	800.76	2.78	2.44	96.25	-11.21	102.36	102.98	97.76	5.21	19.752	
900.00	900.00	876.75	900.64	3.14	2.80	95.99	-10.68	101.72	102.28	96.35	5.93	17.249	
1,000.00	1,000.00	976.80	1,000.69	3.50	3.15	95.83	-10.33	101.15	101.68	95.04	6.65	15.301	
1,100.00	1,100.00	1,077.06	1,100.95	3.85	3.51	95.77	-10.14	100.35	100.87	93.51	7.36	13.704	
1,200.00	1,200.00	1,177.31	1,201.19	4.21	3.87	95.89	-10.25	99.26	99.80	91.73	8.07	12.362	
1,300.00	1,300.00	1,278.09	1,301.96	4.57	4.22	96.03	-10.33	97.81	98.37	89.58	8.79	11.194	
1,400.00	1,400.00	1,380.91	1,404.72	4.93	4.59	95.80	-9.62	94.64	95.25	85.74	9.51	10.018	
1,500.00	1,500.00	1,483.99	1,507.53	5.29	4.97	94.73	-7.25	87.68	88.30	78.09	10.22	8.641	
1,600.00	1,599.98	1,584.39	1,607.47	5.64	5.34	-162.42	-4.13	78.55	80.67	69.75	10.92	7.388	
1,700.00	1,699.84	1,684.64	1,707.24	5.97	5.71	-165.69	-0.97	69.23	76.34	64.72	11.61	6.573	
1,800.00	1,799.45	1,785.69	1,807.67	6.32	6.09	-170.15	2.52	58.64	74.55	62.24	12.31	6.057	
1,843.31	1,842.51	1,829.11	1,850.76	6.47	6.26	-172.44	4.23	53.58	74.35	61.73	12.62	5.893	CC, ES
1,900.00	1,898.76	1,885.61	1,906.83	6.67	6.48	-175.44	6.41	47.01	75.18	62.16	13.02	5.774	
2,000.00	1,998.01	1,985.99	2,006.44	7.03	6.86	179.58	9.98	35.07	76.55	62.82	13.74	5.573	
2,100.00	2,097.27	2,087.24	2,106.77	7.39	7.26	174.97	12.84	21.80	77.09	62.64	14.45	5.334	
2,125.29	2,122.37	2,112.43	2,131.71	7.49	7.36	173.86	13.43	18.30	77.07	62.43	14.64	5.265	
2,200.00	2,196.52	2,186.84	2,205.39	7.76	7.65	170.64	15.16	8.06	77.27	62.08	15.19	5.086	
2,300.00	2,295.78	2,286.27	2,303.90	8.14	8.05	166.51	17.49	-5.23	78.27	62.32	15.94	4.909	
2,400.00	2,395.03	2,385.46	2,402.26	8.51	8.44	162.60	20.09	-17.85	80.36	63.66	16.70	4.812	
2,500.00	2,494.29	2,484.81	2,500.82	8.89	8.84	159.00	22.93	-29.89	83.44	65.98	17.46	4.778	
2,600.00	2,593.54	2,583.89	2,599.25	9.27	9.23	156.09	25.72	-40.96	87.55	69.33	18.23	4.804	
2,700.00	2,692.80	2,683.12	2,697.93	9.66	9.61	145.89	28.52	-50.98	92.41	73.43	18.98	4.868	
2,800.00	2,792.07	2,783.47	2,797.77	10.04	10.01	132.39	31.30	-60.74	95.80	76.07	19.73	4.855	
2,900.00	2,891.33	2,883.73	2,897.36	10.43	10.40	132.09	34.24	-71.88	97.57	77.09	20.49	4.762	
3,000.00	2,990.58	2,983.58	2,996.63	10.82	10.79	132.02	37.29	-82.26	99.96	78.71	21.24	4.705	
3,100.00	3,089.84	3,084.58	3,096.94	11.21	11.19	131.75	40.11	-93.62	101.53	79.52	22.01	4.614	
3,200.00	3,189.09	3,184.65	3,196.25	11.60	11.59	131.21	42.85	-105.67	102.47	79.70	22.78	4.499	
3,300.00	3,288.35	3,283.87	3,294.80	11.99	11.99	131.04	45.37	-116.89	103.84	80.30	23.54	4.411	
3,400.00	3,387.60	3,383.89	3,394.30	12.38	12.38	131.66	47.20	-126.82	105.76	81.48	24.29	4.355	
3,500.00	3,486.86	3,486.71	3,496.51	12.78	12.79	132.31	48.21	-137.93	106.48	81.46	25.03	4.255	
3,600.00	3,586.11	3,586.92	3,595.79	13.17	13.19	131.86	49.44	-151.49	105.30	79.50	25.80	4.081	
3,700.00	3,685.37	3,686.88	3,694.82	13.57	13.60	131.32	50.87	-165.02	104.25	77.67	26.58	3.922	
3,800.00	3,784.62	3,786.80	3,793.79	13.97	14.01	130.63	52.50	-178.68	103.25	75.89	27.36	3.773	
3,900.00	3,883.88	3,886.56	3,892.58	14.36	14.42	129.80	54.41	-192.36	102.43	74.27	28.16	3.637	
4,000.00	3,983.13	3,986.55	3,991.66	14.76	14.83	129.17	56.13	-205.72	101.74	72.79	28.95	3.515	
4,100.00	4,082.39	4,086.68	4,090.87	15.16	15.24	128.54	57.75	-219.18	100.95	71.21	29.74	3.394	
4,200.00	4,181.64	4,185.89	4,189.12	15.56	15.65	127.59	59.87	-232.81	100.32	69.77	30.55	3.284	
4,204.45	4,186.06	4,190.23	4,193.42	15.58	15.67	127.54	59.98	-233.39	100.32	69.74	30.58	3.280	
4,300.00	4,280.90	4,283.82	4,286.24	15.96	16.05	126.71	63.11	-244.99	101.47	70.12	31.35	3.236	
4,400.00	4,380.15	4,383.28	4,384.90	16.36	16.46	125.68	67.54	-256.71	103.94	71.77	32.16	3.232	
4,500.00	4,479.40	4,484.25	4,485.02	16.76	16.87	124.52	72.03	-269.04	106.15	73.16	32.99	3.218	
4,600.00	4,578.66	4,585.29	4,585.11	17.16	17.29	123.30	75.66	-282.33	107.14	73.33	33.81	3.169	
4,700.00	4,677.91	4,685.49	4,684.51	17.56	17.70	122.85	78.02	-294.75	107.69	73.08	34.61	3.111	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 2H (Well C) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,777.17	4,785.45	4,783.62	17.96	18.11	122.21	80.55	-307.49	108.18	72.75	35.42	3.054	
4,900.00	4,876.42	4,885.17	4,882.46	18.36	18.52	121.36	83.44	-320.40	108.83	72.59	36.24	3.003	
5,000.00	4,975.68	4,985.20	4,981.73	18.76	18.92	121.06	85.85	-332.45	109.66	72.63	37.04	2.961	
5,100.00	5,074.93	5,085.22	5,081.02	19.17	19.33	120.92	87.99	-344.32	110.41	72.58	37.83	2.919	
5,200.00	5,174.19	5,185.55	5,180.64	19.57	19.73	120.90	89.91	-356.11	111.04	72.42	38.62	2.876	
5,300.00	5,273.44	5,285.74	5,280.08	19.97	20.14	120.79	91.70	-368.19	111.39	71.98	39.41	2.827	
5,400.00	5,372.70	5,385.95	5,379.52	20.37	20.55	120.63	93.43	-380.45	111.58	71.38	40.20	2.776	
5,500.00	5,471.95	5,486.01	5,478.81	20.78	20.95	120.51	95.02	-392.71	111.65	70.65	40.99	2.724	
5,600.00	5,571.21	5,586.04	5,578.08	21.18	21.36	120.37	96.61	-405.02	111.69	69.90	41.79	2.673	
5,700.00	5,670.46	5,686.37	5,677.60	21.58	21.77	120.13	98.16	-417.62	111.53	68.94	42.59	2.619	
5,800.00	5,769.72	5,786.38	5,776.79	21.99	22.18	119.89	99.60	-430.27	111.25	67.86	43.39	2.564	
5,900.00	5,868.97	5,886.50	5,876.11	22.39	22.59	119.71	100.94	-442.85	110.93	66.74	44.19	2.511	
6,000.00	5,968.23	5,986.49	5,975.31	22.79	23.00	119.65	101.99	-455.34	110.43	65.45	44.98	2.455	
6,053.88	6,021.71	6,039.94	6,028.37	23.01	23.21	119.72	102.58	-461.77	110.32	64.92	45.40	2.430	
6,100.00	6,067.48	6,085.59	6,073.71	23.20	23.40	119.82	103.17	-467.08	110.42	64.66	45.76	2.413	
6,200.00	6,166.74	6,185.13	6,172.60	23.60	23.80	120.07	104.91	-478.27	111.22	64.69	46.53	2.390	
6,300.00	6,265.99	6,285.22	6,271.98	24.01	24.20	120.03	106.91	-490.04	111.92	64.60	47.32	2.365	
6,400.00	6,365.25	6,384.96	6,371.06	24.41	24.60	120.23	108.78	-501.27	112.82	64.72	48.10	2.345	
6,500.00	6,464.50	6,484.92	6,470.40	24.82	25.00	120.51	110.66	-512.31	113.85	64.97	48.87	2.329	
6,600.00	6,563.76	6,585.07	6,569.91	25.22	25.40	120.76	112.52	-523.47	114.81	65.16	49.65	2.313	
6,700.00	6,663.01	6,685.15	6,669.33	25.63	25.81	120.97	114.31	-534.74	115.64	65.22	50.42	2.294	
6,800.00	6,762.27	6,784.95	6,768.50	26.03	26.20	121.29	116.00	-545.79	116.52	65.33	51.19	2.276	
6,900.00	6,861.52	6,884.97	6,867.91	26.44	26.60	121.67	117.69	-556.67	117.52	65.57	51.95	2.262	
7,000.00	6,960.78	6,985.27	6,967.61	26.84	27.00	122.14	119.15	-567.52	118.37	65.67	52.70	2.246	
7,100.00	7,060.03	7,085.30	7,067.06	27.25	27.40	122.73	120.32	-578.26	119.06	65.61	53.45	2.228	
7,200.00	7,159.29	7,185.36	7,166.55	27.65	27.80	123.41	121.33	-588.87	119.73	65.55	54.19	2.210	
7,300.00	7,258.54	7,285.33	7,265.97	28.06	28.19	124.19	122.11	-599.36	120.32	65.41	54.91	2.191	
7,400.00	7,357.80	7,383.33	7,363.46	28.46	28.58	124.86	123.69	-609.15	121.88	66.24	55.64	2.191	SF
7,500.00	7,457.05	7,482.52	7,462.22	28.87	28.96	125.69	125.90	-618.04	124.61	68.26	56.35	2.211	
7,600.00	7,556.31	7,582.88	7,562.16	29.27	29.35	126.50	128.19	-626.98	127.45	70.37	57.07	2.233	
7,700.00	7,655.56	7,683.06	7,661.83	29.68	29.74	126.90	130.79	-636.74	129.95	72.13	57.82	2.247	
7,800.00	7,754.82	7,782.48	7,760.78	30.08	30.13	127.41	133.33	-646.07	132.67	74.12	58.55	2.266	
7,900.00	7,854.07	7,881.92	7,859.81	30.49	30.51	128.16	135.70	-654.70	135.80	76.53	59.26	2.291	
8,000.00	7,953.33	7,981.18	7,958.76	30.90	30.89	129.30	137.62	-662.31	139.35	79.41	59.94	2.325	
8,100.00	8,052.58	8,080.56	8,057.91	31.30	31.26	130.75	139.22	-668.93	143.46	82.88	60.58	2.368	
8,200.00	8,151.84	8,180.08	8,157.23	31.71	31.62	132.32	140.54	-675.08	147.85	86.64	61.21	2.416	
8,300.00	8,251.09	8,279.76	8,256.74	32.11	31.98	133.99	141.65	-680.75	152.59	90.76	61.83	2.468	
8,400.00	8,350.35	8,379.12	8,355.95	32.52	32.35	135.65	142.57	-686.19	157.50	95.06	62.44	2.523	
8,500.00	8,449.60	8,478.32	8,455.03	32.93	32.70	137.36	143.38	-691.04	162.94	99.91	63.04	2.585	
8,600.00	8,548.86	8,577.51	8,554.12	33.33	33.05	139.12	143.95	-695.37	168.83	105.20	63.63	2.653	
8,700.00	8,648.11	8,676.64	8,653.18	33.74	33.40	140.93	144.29	-699.16	175.19	110.98	64.21	2.728	
8,800.00	8,747.37	8,776.10	8,752.58	34.15	33.75	142.74	144.38	-702.55	181.94	117.14	64.80	2.808	
8,900.00	8,846.62	8,876.59	8,853.01	34.55	34.10	144.52	144.16	-706.01	188.68	123.28	65.40	2.885	
9,000.00	8,945.88	8,976.74	8,953.09	34.96	34.45	146.24	143.56	-709.71	195.18	129.18	66.01	2.957	
9,100.00	9,045.13	9,076.57	9,052.85	35.36	34.80	147.89	142.70	-713.49	201.67	135.06	66.61	3.027	
9,200.00	9,144.39	9,176.14	9,152.33	35.77	35.15	149.44	141.83	-717.28	208.28	141.05	67.23	3.098	
9,300.00	9,243.64	9,275.40	9,251.52	36.18	35.49	150.91	140.91	-720.94	215.12	147.28	67.84	3.171	
9,400.00	9,342.90	9,374.17	9,350.24	36.58	35.84	152.33	139.91	-724.24	222.39	153.93	68.45	3.249	
9,500.00	9,442.15	9,473.02	9,449.04	36.99	36.17	153.76	138.68	-727.10	230.13	161.06	69.07	3.332	
9,600.00	9,541.40	9,571.80	9,547.78	37.40	36.51	155.16	137.30	-729.60	238.30	168.62	69.68	3.420	
9,700.00	9,640.66	9,670.52	9,646.46	37.80	36.84	156.46	136.03	-731.77	246.96	176.65	70.30	3.513	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 2H (Well C) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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	9,739.91	9,769.31	9,745.23	38.21	37.18	157.63	134.98	-733.79	255.94	185.00	70.94	3.608	
9,900.00	9,839.36	9,866.77	9,842.68	38.61	37.50	158.65	134.03	-735.30	263.93	192.37	71.56	3.688	
10,000.00	9,939.11	9,964.50	9,940.40	38.98	37.81	159.41	132.98	-735.77	269.75	197.58	72.17	3.738	
10,100.00	10,039.04	10,064.43	10,040.31	39.33	38.12	159.98	131.54	-735.87	272.61	199.78	72.83	3.743	
10,200.00	10,139.04	10,165.04	10,140.91	39.65	38.44	76.95	129.62	-735.99	272.49	199.00	73.48	3.708	
10,300.00	10,239.04	10,265.53	10,241.36	39.97	38.75	77.49	126.95	-736.21	271.69	197.56	74.13	3.665	
10,400.00	10,339.04	10,365.56	10,341.33	40.28	39.07	78.18	123.58	-736.36	270.82	196.06	74.76	3.623	
10,500.00	10,439.04	10,464.63	10,440.33	40.60	39.38	78.94	119.90	-736.34	270.11	194.74	75.37	3.584	
10,600.00	10,539.04	10,563.54	10,539.19	40.92	39.68	79.65	116.59	-735.97	269.86	193.87	75.98	3.552	
10,614.00	10,553.04	10,577.40	10,553.04	40.97	39.72	79.74	116.16	-735.89	269.85	193.78	76.07	3.547	
10,700.00	10,639.04	10,662.76	10,638.36	41.24	39.99	80.31	113.54	-735.30	269.99	193.38	76.60	3.525	
10,800.00	10,739.04	10,763.08	10,738.63	41.56	40.30	81.01	110.31	-734.56	270.19	192.94	77.25	3.498	
10,900.00	10,839.04	10,862.28	10,837.77	41.89	40.60	81.70	107.13	-733.78	270.48	192.61	77.87	3.474	
11,000.00	10,938.95	10,960.94	10,936.38	42.20	40.91	-97.57	104.15	-732.65	271.53	193.04	78.49	3.459	
11,100.00	11,037.16	11,054.00	11,029.38	42.50	41.19	-99.96	101.28	-730.99	275.70	196.59	79.11	3.485	
11,200.00	11,130.73	11,141.48	11,116.77	42.77	41.44	-104.39	99.46	-727.65	287.14	207.33	79.82	3.598	
11,300.00	11,216.80	11,247.58	11,222.80	43.01	41.77	-112.05	97.65	-724.91	307.30	226.09	81.21	3.784	
11,400.00	11,292.78	11,324.27	11,299.46	43.23	42.02	-117.26	95.73	-725.33	339.02	256.74	82.27	4.121	
11,500.00	11,356.34	11,388.07	11,363.24	43.41	42.22	-120.02	94.00	-725.45	387.42	304.21	83.21	4.656	
11,600.00	11,405.56	11,438.49	11,413.63	43.59	42.38	-119.34	92.42	-724.98	451.64	367.72	83.92	5.382	
11,700.00	11,438.94	11,473.87	11,448.99	43.79	42.49	-113.86	91.30	-724.49	528.51	444.11	84.39	6.262	
11,800.00	11,455.47	11,492.83	11,467.94	44.02	42.55	-101.34	90.72	-724.21	614.18	529.52	84.66	7.254	
11,900.00	11,458.23	11,498.43	11,473.53	44.31	42.57	-95.34	90.55	-724.12	704.71	619.92	84.79	8.311	
12,000.00	11,459.87	12,786.00	12,208.38	44.67	46.10	-161.28	-699.12	-740.98	791.33	731.84	59.49	13.302	
12,100.00	11,461.51	12,884.03	12,205.24	45.08	46.57	-161.57	-796.97	-745.82	784.87	724.99	59.88	13.108	
12,200.00	11,463.15	12,987.76	12,200.16	45.56	47.12	-161.59	-900.55	-747.45	777.88	717.34	60.54	12.849	
12,300.00	11,464.79	13,079.38	12,195.44	46.10	47.64	-161.46	-992.04	-746.81	771.37	710.19	61.17	12.610	
12,400.00	11,466.43	13,181.38	12,190.37	46.69	48.27	-161.30	-1,093.91	-745.89	765.09	703.08	62.02	12.337	
12,500.00	11,468.07	13,280.04	12,185.83	47.33	48.93	-161.21	-1,192.47	-745.78	758.93	696.11	62.82	12.081	
12,600.00	11,469.72	13,382.98	12,180.45	48.02	49.66	-161.05	-1,295.27	-745.00	752.37	688.59	63.78	11.796	
12,700.00	11,471.36	13,485.16	12,175.09	48.77	50.44	-160.87	-1,397.30	-744.03	745.88	681.08	64.80	11.511	
12,800.00	11,473.00	13,607.84	12,166.13	49.55	51.42	-160.53	-1,519.63	-742.11	737.70	671.31	66.39	11.111	
12,900.00	11,474.64	13,724.52	12,153.73	50.38	52.42	-160.09	-1,635.63	-740.28	726.34	658.30	68.04	10.675	
13,000.00	11,476.28	13,824.43	12,141.93	51.25	53.32	-159.67	-1,734.83	-738.70	713.93	644.57	69.36	10.293	
13,100.00	11,477.92	13,916.00	12,131.06	52.16	54.17	-159.27	-1,825.74	-737.20	701.57	631.06	70.51	9.950	
13,200.00	11,479.56	13,991.38	12,123.79	53.10	54.89	-158.95	-1,900.75	-735.59	691.59	620.34	71.24	9.707	
13,300.00	11,481.20	14,061.51	12,119.88	54.08	55.57	-158.64	-1,970.72	-732.94	685.89	613.98	71.91	9.539	
13,367.56	11,482.31	14,105.00	12,118.76	54.76	56.00	-158.42	-2,014.12	-730.44	684.52	612.20	72.32	9.465	
13,400.00	11,482.84	14,129.38	12,118.63	55.09	56.24	-158.29	-2,038.44	-728.78	684.62	611.99	72.62	9.427	
13,500.00	11,484.48	14,199.00	12,120.80	56.14	56.93	-157.94	-2,107.79	-723.19	688.45	615.01	73.44	9.374	
13,600.00	11,486.12	14,262.85	12,126.05	57.21	57.58	-157.72	-2,171.21	-718.02	697.06	622.93	74.13	9.404	
13,700.00	11,487.76	14,367.44	12,139.42	58.30	58.69	-157.85	-2,274.82	-714.09	708.51	633.23	75.28	9.411	
13,800.00	11,489.40	14,496.63	12,155.61	59.43	60.13	-158.91	-2,402.75	-721.46	716.17	640.01	76.16	9.403	
13,900.00	11,491.04	14,590.20	12,166.05	60.57	61.20	-159.64	-2,495.57	-726.95	722.71	646.09	76.62	9.432	
14,000.00	11,492.68	14,687.19	12,176.94	61.75	62.32	-160.29	-2,591.85	-731.35	729.89	652.67	77.23	9.451	
14,100.00	11,494.32	14,786.31	12,187.69	62.94	63.49	-160.79	-2,690.35	-734.06	737.37	659.37	78.01	9.453	
14,200.00	11,495.96	14,886.52	12,197.97	64.15	64.68	-161.19	-2,790.01	-735.59	744.75	665.83	78.92	9.437	
14,300.00	11,497.60	14,981.91	12,207.99	65.38	65.84	-161.55	-2,884.86	-736.76	752.48	672.71	79.77	9.433	
14,400.00	11,499.24	15,074.46	12,218.22	66.63	66.98	-161.87	-2,976.84	-737.58	760.87	680.28	80.60	9.440	
14,500.00	11,500.89	15,163.37	12,228.53	67.90	68.08	-162.02	-3,065.14	-735.92	770.63	689.11	81.52	9.453	
14,600.00	11,502.53	15,273.56	12,241.78	69.18	69.46	-162.17	-3,174.49	-733.28	781.06	698.13	82.93	9.419	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 2H (Well C) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,700.00	11,504.17	15,465.45	12,252.62	70.48	71.92	-162.70	-3,365.88	-736.74	783.94	698.05	85.88	9.128	
14,800.00	11,505.81	15,585.94	12,252.15	71.79	73.48	-163.32	-3,486.07	-745.20	779.61	692.52	87.10	8.951	
14,900.00	11,507.45	15,667.10	12,250.87	73.12	74.54	-163.58	-3,567.12	-748.89	775.08	687.35	87.73	8.835	
15,000.00	11,509.09	15,747.65	12,251.15	74.46	75.60	-163.57	-3,647.66	-748.26	773.74	685.10	88.63	8.730	
15,026.94	11,509.53	15,771.76	12,251.46	74.83	75.92	-163.55	-3,671.77	-747.90	773.69	684.74	88.95	8.698	
15,100.00	11,510.73	15,848.14	12,252.62	75.81	76.94	-163.51	-3,748.13	-746.68	773.75	683.66	90.08	8.589	
15,200.00	11,512.37	15,946.54	12,253.20	77.18	78.26	-163.43	-3,846.51	-744.90	773.00	681.46	91.53	8.445	
15,213.95	11,512.60	15,958.77	12,253.35	77.37	78.42	-163.42	-3,858.74	-744.67	772.98	681.29	91.69	8.430	
15,300.00	11,514.01	16,039.39	12,254.85	78.55	79.51	-163.37	-3,939.33	-743.13	773.40	680.57	92.83	8.332	
15,400.00	11,515.65	16,146.77	12,256.78	79.94	80.97	-163.28	-4,046.66	-740.88	773.91	679.37	94.54	8.186	
15,450.57	11,516.48	16,195.42	12,257.22	80.65	81.64	-163.25	-4,095.31	-740.01	773.68	678.42	95.26	8.121	
15,500.00	11,517.29	16,232.78	12,257.98	81.34	82.15	-163.21	-4,132.65	-739.16	774.07	678.38	95.69	8.089	
15,600.00	11,518.93	16,334.17	12,261.57	82.74	83.56	-163.13	-4,233.94	-736.45	776.40	679.13	97.28	7.981	
15,700.00	11,520.57	16,425.05	12,264.06	84.15	84.82	-163.10	-4,324.77	-734.84	777.76	679.23	98.53	7.894	
15,800.00	11,522.21	16,501.58	12,267.87	85.58	85.90	-163.01	-4,401.15	-732.07	781.76	682.32	99.44	7.861	
15,900.00	11,523.85	16,577.08	12,273.59	87.01	86.96	-162.84	-4,476.30	-727.64	788.89	688.48	100.41	7.857	
16,000.00	11,525.49	16,655.08	12,281.87	88.45	88.06	-162.72	-4,553.72	-723.00	798.94	697.55	101.39	7.880	
16,100.00	11,527.13	16,753.63	12,294.31	89.89	89.47	-162.74	-4,651.39	-719.08	810.36	707.53	102.82	7.881	
16,200.00	11,528.77	16,859.16	12,308.11	91.34	90.99	-162.95	-4,756.00	-717.53	821.47	717.22	104.24	7.880	
16,300.00	11,530.42	17,027.54	12,326.07	92.80	93.42	-163.54	-4,923.34	-720.26	830.34	723.35	106.99	7.761	
16,400.00	11,532.06	17,111.84	12,331.46	94.27	94.65	-163.84	-5,007.42	-722.82	833.79	726.12	107.67	7.744	
16,500.00	11,533.70	17,222.08	12,338.65	95.74	96.25	-164.15	-5,117.41	-724.94	837.72	728.65	109.07	7.681	
16,600.00	11,535.34	17,333.81	12,342.60	97.22	97.89	-164.20	-5,229.05	-724.04	839.44	728.60	110.85	7.573	
16,700.00	11,536.98	17,414.96	12,346.08	98.70	99.08	-164.12	-5,310.09	-721.53	842.53	730.58	111.95	7.526	
16,800.00	11,538.62	17,543.26	12,351.09	100.19	100.97	-164.21	-5,438.27	-720.89	844.54	730.40	114.14	7.399	
16,900.00	11,540.26	17,678.80	12,352.60	101.68	102.97	-164.42	-5,573.78	-722.97	843.48	727.17	116.32	7.252	
17,000.00	11,541.90	17,754.90	12,351.98	103.18	104.10	-164.41	-5,649.87	-722.69	841.05	723.80	117.25	7.173	
17,032.67	11,542.43	17,781.00	12,352.31	103.67	104.49	-164.40	-5,675.96	-722.25	840.98	723.38	117.60	7.151	
17,100.00	11,543.54	17,851.31	12,353.38	104.68	105.54	-164.37	-5,746.25	-721.21	841.01	722.25	118.76	7.082	
17,200.00	11,545.18	17,983.71	12,352.94	106.19	107.51	-164.38	-5,878.65	-720.85	839.01	717.87	121.14	6.926	
17,300.00	11,546.82	18,105.83	12,348.25	107.70	109.35	-164.43	-6,000.66	-722.38	833.07	709.92	123.15	6.765	
17,400.00	11,548.46	18,211.31	12,342.81	109.22	110.93	-164.47	-6,105.99	-723.95	825.87	701.09	124.79	6.618	
17,500.00	11,550.10	18,309.15	12,336.59	110.74	112.41	-164.30	-6,203.61	-722.84	818.24	691.68	126.55	6.466	
17,600.00	11,551.74	18,395.71	12,331.03	112.26	113.72	-163.94	-6,289.89	-718.63	811.58	683.19	128.39	6.321	
17,700.00	11,553.38	18,479.22	12,327.31	113.79	114.98	-163.59	-6,373.20	-714.22	806.93	676.82	130.11	6.202	
17,800.00	11,555.02	18,563.72	12,324.98	115.32	116.26	-163.20	-6,457.50	-708.90	804.25	672.33	131.92	6.097	
17,877.79	11,556.30	18,628.00	12,323.85	116.51	117.24	-162.82	-6,521.52	-703.27	803.52	670.09	133.43	6.022	
17,900.00	11,556.66	18,628.00	12,323.85	116.85	117.24	-162.82	-6,521.52	-703.27	803.83	670.74	133.08	6.040	
18,000.00	11,558.30	18,700.27	12,324.88	118.39	118.33	-162.29	-6,593.28	-694.90	807.26	672.62	134.64	5.996	
18,100.00	11,559.94	18,792.88	12,330.29	119.93	119.74	-161.66	-6,685.02	-683.49	814.77	677.67	137.10	5.943	
18,200.00	11,561.59	18,924.77	12,337.92	121.47	121.76	-161.38	-6,816.45	-676.17	820.24	679.82	140.42	5.841	
18,300.00	11,563.23	19,043.07	12,343.06	123.02	123.58	-161.50	-6,934.62	-675.85	822.63	680.17	142.47	5.774	
18,400.00	11,564.87	19,151.64	12,345.73	124.57	125.25	-161.68	-7,043.15	-677.27	822.66	678.60	144.07	5.710	
18,500.00	11,566.51	19,300.23	12,346.61	126.12	127.54	-161.92	-7,191.68	-680.10	821.31	674.69	146.62	5.602	
18,600.00	11,568.15	19,403.61	12,342.76	127.67	129.13	-162.03	-7,294.95	-682.49	815.20	667.03	148.17	5.502	
18,700.00	11,569.79	19,489.91	12,339.85	129.23	130.46	-162.09	-7,381.19	-684.01	809.63	660.25	149.38	5.420	
18,800.00	11,571.43	19,573.00	12,338.99	130.79	131.75	-162.16	-7,464.27	-685.03	806.35	655.91	150.44	5.360	
18,900.00	11,573.07	19,664.52	12,339.59	132.35	133.17	-162.28	-7,555.78	-686.31	804.67	653.05	151.62	5.307	
19,000.00	11,574.71	19,817.05	12,335.65	133.91	135.53	-162.45	-7,708.20	-689.36	799.70	645.38	154.33	5.182	
19,100.00	11,576.35	19,926.81	12,327.48	135.48	137.24	-162.37	-7,817.64	-690.42	790.43	634.07	156.35	5.055	
19,200.00	11,577.99	20,016.19	12,320.85	137.04	138.63	-162.23	-7,906.78	-690.17	781.61	623.53	158.09	4.944	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 2H (Well C) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.00	11,579.63	20,094.93	12,316.42	138.61	139.86	-162.10	-7,985.39	-689.44	774.75	615.22	159.52	4.857	
19,400.00	11,581.27	20,194.01	12,313.44	140.18	141.41	-161.99	-8,084.42	-688.36	770.37	608.93	161.43	4.772	
19,500.00	11,582.91	20,301.11	12,308.61	141.76	143.08	-161.92	-8,191.41	-688.57	764.15	600.69	163.45	4.675	
19,600.00	11,584.55	20,431.01	12,300.62	143.33	145.12	-161.76	-8,321.04	-688.54	756.61	590.46	166.15	4.554	
19,700.00	11,586.19	20,524.12	12,293.12	144.91	146.58	-161.58	-8,413.85	-688.16	747.22	579.11	168.11	4.445	
19,800.00	11,587.83	20,643.97	12,280.91	146.48	148.45	-161.17	-8,533.05	-686.28	736.15	565.05	171.10	4.302	
19,900.00	11,589.47	20,742.35	12,269.61	148.06	150.00	-160.75	-8,630.76	-684.14	724.14	550.38	173.76	4.167	
20,000.00	11,591.11	20,831.79	12,259.58	149.65	151.40	-160.31	-8,719.60	-681.56	712.70	536.37	176.33	4.042	
20,100.00	11,592.76	20,895.00	12,253.84	151.23	152.40	-160.02	-8,782.52	-679.66	703.86	525.97	177.88	3.957	
20,200.00	11,594.40	20,989.00	12,249.76	152.81	153.88	-159.63	-8,876.33	-675.77	699.33	518.92	180.41	3.876	
20,259.06	11,595.36	21,019.98	12,249.63	153.75	154.37	-159.52	-8,907.27	-674.28	698.46	517.70	180.76	3.864	
20,300.00	11,596.04	21,058.80	12,249.73	154.40	154.98	-159.42	-8,946.07	-672.81	698.34	516.69	181.65	3.844	
20,400.00	11,597.68	21,190.72	12,249.34	155.98	157.06	-159.37	-9,077.96	-671.96	696.59	511.95	184.64	3.773	
20,500.00	11,599.32	21,273.00	12,249.18	157.57	158.36	-159.40	-9,160.23	-672.18	694.23	508.47	185.76	3.737	
20,600.00	11,600.96	21,373.27	12,249.31	159.16	159.95	-159.38	-9,260.50	-671.57	692.70	505.10	187.60	3.692	
20,700.00	11,602.60	21,473.97	12,248.73	160.75	161.54	-159.32	-9,361.20	-670.71	690.61	501.05	189.56	3.643	
20,800.00	11,604.24	21,584.40	12,246.31	162.35	163.29	-159.25	-9,471.60	-670.30	686.76	494.86	191.89	3.579	
20,900.00	11,605.88	21,663.68	12,245.67	163.94	164.54	-159.21	-9,550.87	-669.85	684.36	491.32	193.04	3.545	
20,921.79	11,606.24	21,679.85	12,245.86	164.29	164.80	-159.21	-9,567.03	-669.69	684.27	491.05	193.22	3.541	
21,000.00	11,607.52	21,746.00	12,248.01	165.53	165.85	-159.21	-9,633.14	-668.75	685.49	491.39	194.10	3.532	
21,100.00	11,609.16	21,860.55	12,251.59	167.13	167.67	-159.26	-9,747.62	-667.59	687.02	490.63	196.39	3.498	
21,200.00	11,610.80	21,982.18	12,251.19	168.73	169.60	-159.20	-9,869.24	-666.63	685.14	486.02	199.12	3.441	
21,300.00	11,612.44	22,101.10	12,247.02	170.32	171.50	-159.07	-9,988.09	-666.19	680.12	478.28	201.83	3.370	
21,400.00	11,614.08	22,223.15	12,238.61	171.92	173.44	-158.72	-10,109.82	-664.78	672.25	467.17	205.08	3.278	
21,500.00	11,615.72	22,319.11	12,230.21	173.52	174.96	-158.32	-10,205.40	-662.73	663.02	455.05	207.97	3.188	
21,600.00	11,617.36	22,414.19	12,222.52	175.12	176.48	-157.92	-10,300.13	-660.69	654.43	443.62	210.82	3.104	
21,638.81	11,618.00	22,426.00	12,221.59	175.74	176.67	-157.87	-10,311.91	-660.45	651.76	440.83	210.93	3.090	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 3H (Well B) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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	25.00	0.00	0.00	98.57	-19.60	130.00	133.83				
100.00	100.00	75.53	100.53	0.27	0.27	98.57	-19.58	129.90	131.37	130.83	0.54	244.253	
200.00	200.00	176.50	201.49	0.63	0.63	98.54	-19.40	129.11	130.57	129.32	1.25	104.080	
300.00	300.00	277.32	302.30	0.99	0.99	98.39	-18.86	127.79	129.20	127.22	1.97	65.495	
400.00	400.00	377.93	402.89	1.34	1.35	98.05	-17.81	125.85	127.14	124.45	2.69	47.243	
500.00	500.00	477.46	502.39	1.70	1.71	97.43	-16.16	123.93	125.01	121.60	3.41	36.704	
600.00	600.00	575.78	600.68	2.06	2.06	96.37	-13.75	123.07	123.84	119.73	4.11	30.100	
700.00	700.00	675.65	700.51	2.42	2.41	95.20	-11.18	122.85	123.36	118.53	4.83	25.551	
800.00	800.00	775.53	800.37	2.78	2.77	94.31	-9.24	122.68	123.02	117.48	5.54	22.197	
900.00	900.00	875.57	900.40	3.14	3.12	93.58	-7.67	122.47	122.71	116.46	6.26	19.609	
1,000.00	1,000.00	975.69	1,000.51	3.50	3.48	92.88	-6.14	122.21	122.37	115.39	6.97	17.544	
1,100.00	1,100.00	1,075.82	1,100.63	3.85	3.84	92.35	-4.99	121.77	121.88	114.19	7.69	15.845	
1,200.00	1,200.00	1,175.90	1,200.71	4.21	4.20	92.00	-4.24	121.26	121.34	112.93	8.41	14.431	
1,300.00	1,300.00	1,276.08	1,300.89	4.57	4.56	91.64	-3.45	120.63	120.69	111.56	9.13	13.225	
1,400.00	1,400.00	1,376.44	1,401.21	4.93	4.92	90.49	-1.03	119.84	119.85	110.00	9.84	12.174	
1,500.00	1,500.00	1,476.50	1,501.12	5.29	5.28	87.97	4.21	118.71	118.79	108.22	10.56	11.245	
1,525.03	1,525.03	1,501.46	1,526.04	5.37	5.37	-167.72	5.60	118.42	118.67	107.93	10.74	11.048	CC, ES
1,600.00	1,599.98	1,576.25	1,600.70	5.64	5.64	-169.97	9.93	117.59	119.73	108.46	11.27	10.621	
1,700.00	1,699.84	1,675.62	1,699.81	5.97	6.00	-173.66	16.99	116.42	124.58	112.61	11.97	10.405	
1,800.00	1,799.45	1,774.69	1,798.51	6.32	6.37	-177.77	25.50	115.20	133.67	120.99	12.68	10.543	
1,900.00	1,898.76	1,873.53	1,896.92	6.67	6.73	178.46	34.54	113.83	146.40	133.02	13.39	10.936	
2,000.00	1,998.01	1,971.98	1,994.91	7.03	7.10	175.17	43.92	112.37	160.13	146.03	14.09	11.362	
2,100.00	2,097.27	2,071.32	2,093.75	7.39	7.47	172.24	53.79	110.70	174.27	159.46	14.81	11.768	
2,200.00	2,196.52	2,172.69	2,194.63	7.76	7.85	169.70	63.46	108.15	187.88	172.34	15.54	12.092	
2,300.00	2,295.78	2,271.44	2,292.92	8.14	8.22	167.59	72.43	104.99	200.98	184.72	16.26	12.362	
2,400.00	2,395.03	2,369.20	2,390.17	8.51	8.59	165.65	81.86	101.94	214.66	197.69	16.97	12.646	
2,500.00	2,494.29	2,470.83	2,491.31	8.89	8.98	163.93	91.27	98.60	228.21	210.50	17.72	12.882	
2,600.00	2,593.54	2,572.45	2,592.54	9.27	9.36	162.65	99.09	94.65	240.61	222.15	18.45	13.038	
2,700.00	2,692.80	2,669.75	2,689.50	9.66	9.72	153.41	106.38	90.97	252.87	233.70	19.17	13.188	
2,800.00	2,792.07	2,767.53	2,786.93	10.04	10.09	139.70	114.08	87.86	264.44	244.54	19.90	13.289	
2,900.00	2,891.33	2,868.22	2,887.27	10.43	10.47	139.66	121.95	84.99	275.69	255.05	20.64	13.354	
3,000.00	2,990.58	2,972.90	2,991.69	10.82	10.86	139.87	128.22	81.35	285.42	264.01	21.41	13.334	
3,100.00	3,089.84	3,076.18	3,094.78	11.21	11.24	140.24	132.86	77.09	293.80	271.65	22.15	13.263	
3,200.00	3,189.09	3,175.76	3,194.27	11.60	11.59	141.01	134.88	73.38	301.21	278.34	22.88	13.167	
3,300.00	3,288.35	3,267.64	3,286.12	11.99	11.91	141.90	136.39	71.57	309.99	286.43	23.56	13.160	
3,400.00	3,387.60	3,359.05	3,377.50	12.38	12.23	143.07	137.75	73.11	321.86	297.65	24.21	13.294	
3,500.00	3,486.86	3,456.03	3,474.42	12.78	12.55	144.34	139.30	76.28	335.32	310.42	24.89	13.471	
3,600.00	3,586.11	3,559.22	3,577.55	13.17	12.90	145.59	140.75	79.36	348.61	322.99	25.62	13.609	
3,700.00	3,685.37	3,659.59	3,677.90	13.57	13.24	146.69	141.68	81.12	360.72	334.40	26.32	13.705	
3,800.00	3,784.62	3,759.18	3,777.47	13.97	13.58	147.73	142.57	83.00	373.07	346.05	27.02	13.805	
3,900.00	3,883.88	3,868.96	3,887.23	14.36	13.96	148.64	143.92	83.32	384.26	356.47	27.79	13.828	
4,000.00	3,983.13	3,969.78	3,988.01	14.76	14.32	149.23	145.58	81.26	393.54	365.02	28.51	13.802	
4,100.00	4,082.39	4,067.87	4,086.07	15.16	14.67	149.74	147.46	79.27	402.98	373.75	29.23	13.788	
4,200.00	4,181.64	4,166.57	4,184.73	15.56	15.02	150.17	149.88	77.38	412.75	382.80	29.95	13.783	
4,300.00	4,280.90	4,270.61	4,288.70	15.96	15.39	150.61	152.19	74.97	422.10	391.41	30.69	13.755	
4,400.00	4,380.15	4,375.54	4,393.59	16.36	15.76	151.21	152.83	71.74	430.16	398.74	31.42	13.690	
4,500.00	4,479.40	4,475.04	4,493.03	16.76	16.10	151.82	152.72	68.34	437.68	405.55	32.13	13.622	
4,600.00	4,578.66	4,571.83	4,589.77	17.16	16.43	152.50	151.98	65.72	445.68	412.86	32.82	13.580	
4,700.00	4,677.91	4,670.39	4,688.31	17.56	16.76	153.34	150.21	63.99	454.28	420.77	33.51	13.557	
4,800.00	4,777.17	4,771.33	4,789.21	17.96	17.09	154.18	148.13	62.08	462.75	428.55	34.21	13.529	
4,900.00	4,876.42	4,872.21	4,890.04	18.36	17.43	154.99	146.04	59.90	471.07	436.17	34.90	13.496	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 3H (Well B) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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
5,000.00	4,975.68	4,972.64	4,990.42	18.76	17.77	155.72	144.19	57.29	479.13	443.53	35.60	13.457	
5,100.00	5,074.93	5,073.03	5,090.76	19.17	18.11	156.40	142.56	54.51	487.17	450.86	36.31	13.418	
5,200.00	5,174.19	5,172.71	5,190.38	19.57	18.44	157.06	140.77	51.61	495.08	458.08	37.01	13.378	
5,300.00	5,273.44	5,272.25	5,289.86	19.97	18.78	157.70	139.04	48.74	503.10	465.39	37.71	13.341	
5,400.00	5,372.70	5,364.51	5,382.08	20.37	19.09	158.29	137.40	46.59	511.72	473.34	38.38	13.335	
5,500.00	5,471.95	5,461.00	5,478.55	20.78	19.42	158.97	135.33	45.76	521.70	482.64	39.05	13.359	
5,600.00	5,571.21	5,558.60	5,576.13	21.18	19.74	159.64	133.24	45.16	532.00	492.26	39.74	13.388	
5,700.00	5,670.46	5,653.15	5,670.66	21.58	20.06	160.16	132.23	44.89	542.93	502.53	40.40	13.438	
5,800.00	5,769.72	5,751.98	5,769.49	21.99	20.39	160.61	131.97	45.04	554.50	513.41	41.09	13.494	
5,900.00	5,868.97	5,852.11	5,869.63	22.39	20.72	161.08	131.49	45.11	565.99	524.19	41.79	13.543	
6,000.00	5,968.23	5,951.03	5,968.54	22.79	21.05	161.52	130.93	45.13	577.44	534.96	42.49	13.591	
6,100.00	6,067.48	6,050.21	6,067.72	23.20	21.39	161.96	130.33	45.21	588.98	545.79	43.18	13.639	
6,200.00	6,166.74	6,148.11	6,165.62	23.60	21.72	162.37	129.72	45.40	600.66	556.79	43.87	13.691	
6,300.00	6,265.99	6,246.67	6,264.18	24.01	22.05	162.77	129.24	45.75	612.54	567.98	44.56	13.745	
6,400.00	6,365.25	6,347.26	6,364.76	24.41	22.39	163.15	128.75	46.03	624.38	579.11	45.27	13.792	
6,500.00	6,464.50	6,446.72	6,464.23	24.82	22.72	163.51	128.35	46.11	636.08	590.10	45.97	13.836	
6,600.00	6,563.76	6,544.42	6,561.92	25.22	23.05	163.83	128.12	46.38	648.01	601.35	46.66	13.887	
6,700.00	6,663.01	6,644.83	6,662.33	25.63	23.40	164.15	127.96	46.53	659.84	612.47	47.37	13.929	
6,800.00	6,762.27	6,743.21	6,760.71	26.03	23.73	164.44	127.85	46.79	671.82	623.75	48.07	13.976	
6,900.00	6,861.52	6,844.16	6,861.66	26.44	24.08	164.72	127.84	46.87	683.64	634.86	48.79	14.013	
7,000.00	6,960.78	6,942.77	6,960.27	26.84	24.42	164.98	127.81	46.85	695.39	645.90	49.49	14.051	
7,100.00	7,060.03	7,042.06	7,059.56	27.25	24.76	165.24	127.78	47.01	707.32	657.13	50.20	14.091	
7,200.00	7,159.29	7,142.01	7,159.51	27.65	25.10	165.52	127.50	47.01	719.08	668.18	50.91	14.126	
7,300.00	7,258.54	7,241.38	7,258.88	28.06	25.45	165.78	127.23	47.03	730.88	679.27	51.61	14.161	
7,400.00	7,357.80	7,338.82	7,356.32	28.46	25.78	166.02	127.03	47.07	742.72	690.41	52.30	14.200	
7,500.00	7,457.05	7,438.81	7,456.31	28.87	26.12	166.27	126.76	47.34	754.79	701.77	53.01	14.238	
7,600.00	7,556.31	7,537.07	7,554.57	29.27	26.46	166.49	126.69	47.45	766.73	713.02	53.71	14.275	
7,700.00	7,655.56	7,636.26	7,653.76	29.68	26.80	166.71	126.54	47.73	778.85	724.43	54.42	14.313	
7,800.00	7,754.82	7,733.52	7,751.02	30.08	27.13	166.91	126.49	48.05	791.04	735.93	55.11	14.354	
7,900.00	7,854.07	7,830.73	7,848.22	30.49	27.47	167.10	126.62	48.64	803.53	747.72	55.80	14.399	
8,000.00	7,953.33	7,930.19	7,947.69	30.90	27.81	167.28	126.96	49.33	816.13	759.62	56.51	14.441	
8,100.00	8,052.58	8,028.21	8,045.70	31.30	28.15	167.45	127.12	50.05	828.77	771.56	57.21	14.485	
8,200.00	8,151.84	8,124.72	8,142.21	31.71	28.49	167.63	127.22	50.99	841.65	783.75	57.90	14.535	
8,300.00	8,251.09	8,221.00	8,238.48	32.11	28.82	167.79	127.52	52.32	854.94	796.35	58.59	14.591	
8,400.00	8,350.35	8,318.96	8,336.43	32.52	29.16	167.94	127.89	53.88	868.47	809.18	59.29	14.647	
8,500.00	8,449.60	8,418.07	8,435.52	32.93	29.50	168.09	128.23	55.43	881.98	821.97	60.00	14.699	
8,600.00	8,548.86	8,515.80	8,533.23	33.33	29.84	168.23	128.75	57.05	895.58	834.88	60.70	14.753	
8,700.00	8,648.11	8,617.28	8,634.70	33.74	30.19	168.36	129.39	58.64	909.12	847.69	61.43	14.799	
8,800.00	8,747.37	8,718.96	8,736.37	34.15	30.55	168.48	130.08	59.93	922.37	860.21	62.16	14.839	
8,900.00	8,846.62	8,818.48	8,835.88	34.55	30.90	168.58	131.00	60.96	935.42	872.55	62.88	14.877	
9,000.00	8,945.88	8,917.93	8,935.32	34.96	31.24	168.65	132.24	62.10	948.61	885.02	63.59	14.917	
9,100.00	9,045.13	9,022.00	9,039.38	35.36	31.61	168.73	133.48	62.83	961.35	897.01	64.34	14.942	
9,200.00	9,144.39	9,121.99	9,139.36	35.77	31.96	168.81	134.55	63.27	973.82	908.76	65.06	14.968	
9,300.00	9,243.64	9,221.41	9,238.77	36.18	32.31	168.90	135.42	63.72	986.30	920.52	65.78	14.995	
9,400.00	9,342.90	9,321.59	9,338.95	36.58	32.66	169.02	135.68	64.15	998.70	932.21	66.49	15.020	
9,500.00	9,442.15	9,422.28	9,439.64	36.99	33.01	169.18	135.40	64.50	1,011.00	943.78	67.21	15.042	
9,600.00	9,541.40	9,524.17	9,541.53	37.40	33.36	169.35	134.67	64.69	1,023.10	955.16	67.93	15.060	
9,700.00	9,640.66	9,622.72	9,640.07	37.80	33.70	169.54	133.40	64.76	1,035.07	966.43	68.64	15.080	
9,800.00	9,739.91	9,722.09	9,739.44	38.21	34.04	169.73	132.19	64.91	1,047.12	977.78	69.34	15.100	
9,900.00	9,839.36	9,822.12	9,839.46	38.61	34.38	169.91	131.38	64.98	1,057.46	987.41	70.05	15.095	
10,000.00	9,939.11	9,921.00	9,938.34	38.98	34.72	170.03	130.93	65.02	1,064.38	993.63	70.75	15.044	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 3H (Well B) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,039.04	10,018.52	10,035.86	39.33	35.06	170.08	130.71	65.21	1,068.03	996.60	71.44	14.950	
10,200.00	10,139.04	10,127.18	10,144.51	39.65	35.44	86.62	131.12	65.14	1,068.44	996.26	72.18	14.802	
10,300.00	10,239.04	10,245.57	10,262.89	39.97	35.86	86.55	132.24	63.43	1,067.06	994.09	72.97	14.623	
10,400.00	10,339.04	10,355.10	10,372.35	40.28	36.24	86.45	133.99	60.21	1,064.20	990.50	73.70	14.439	
10,500.00	10,439.04	10,453.08	10,470.27	40.60	36.59	86.34	135.71	57.03	1,061.08	986.70	74.38	14.265	
10,600.00	10,539.04	10,552.47	10,569.59	40.92	36.94	86.22	137.87	54.06	1,058.24	983.17	75.07	14.096	
10,700.00	10,639.04	10,651.64	10,668.66	41.24	37.29	86.04	140.91	50.98	1,055.34	979.58	75.76	13.929	
10,800.00	10,739.04	10,749.03	10,765.95	41.56	37.64	85.83	144.58	48.10	1,052.66	976.21	76.45	13.770	
10,900.00	10,839.04	10,859.91	10,876.69	41.89	38.03	85.60	148.59	44.40	1,049.60	972.40	77.19	13.597	
11,000.00	10,938.95	10,965.07	10,981.75	42.20	38.40	-94.33	150.33	40.22	1,045.96	968.06	77.90	13.427	
11,100.00	11,037.16	11,073.98	11,090.55	42.50	38.78	-95.77	150.89	35.29	1,043.05	964.45	78.61	13.269	
11,200.00	11,130.73	11,184.84	11,201.20	42.77	39.17	-98.08	150.42	28.64	1,041.15	961.86	79.29	13.130	
11,224.00	11,152.17	11,209.57	11,225.88	42.83	39.26	-98.69	150.11	26.95	1,041.05	961.60	79.45	13.104	
11,300.00	11,216.80	11,273.50	11,289.64	43.01	39.48	-100.35	149.03	22.49	1,042.49	962.60	79.89	13.049	
11,400.00	11,292.78	11,345.35	11,361.32	43.23	39.73	-102.07	147.62	17.83	1,050.35	969.93	80.42	13.061	
11,500.00	11,356.34	11,406.06	11,421.91	43.41	39.94	-102.95	146.36	14.19	1,066.64	985.77	80.87	13.189	
11,600.00	11,405.56	11,451.57	11,467.34	43.59	40.10	-102.44	145.42	11.66	1,092.71	1,011.48	81.24	13.451	
11,700.00	11,438.94	11,481.08	11,496.81	43.79	40.20	-100.11	144.69	10.25	1,129.03	1,047.54	81.49	13.855	
11,800.00	11,455.47	11,497.91	11,513.61	44.02	40.26	-95.92	144.09	9.61	1,174.84	1,093.21	81.63	14.392	
11,900.00	11,458.23	12,584.70	12,084.08	44.31	43.49	-120.93	-611.49	47.62	1,217.69	1,137.93	79.76	15.267	
12,000.00	11,459.87	12,755.42	12,078.97	44.67	44.28	-120.92	-781.69	36.26	1,208.77	1,127.66	81.12	14.902	
12,100.00	11,461.51	12,820.00	12,076.96	45.08	44.61	-120.95	-845.99	30.60	1,198.18	1,116.41	81.77	14.653	
12,200.00	11,463.15	12,895.46	12,074.60	45.56	45.04	-120.93	-921.27	26.13	1,189.99	1,107.39	82.60	14.407	
12,300.00	11,464.79	12,969.03	12,072.10	46.10	45.49	-120.84	-994.78	24.21	1,184.34	1,100.84	83.49	14.185	
12,400.00	11,466.43	13,050.44	12,068.74	46.69	46.02	-120.66	-1,076.11	24.28	1,180.63	1,096.07	84.56	13.962	
12,500.00	11,468.07	13,139.59	12,064.20	47.33	46.63	-120.39	-1,165.12	26.03	1,178.10	1,092.28	85.83	13.727	
12,600.00	11,469.72	13,235.42	12,056.90	48.02	47.35	-119.94	-1,260.59	30.08	1,176.31	1,088.98	87.33	13.470	
12,700.00	11,471.36	13,344.08	12,046.96	48.77	48.21	-119.34	-1,368.66	35.33	1,174.37	1,085.23	89.14	13.174	
12,800.00	11,473.00	13,448.06	12,038.02	49.55	49.08	-118.82	-1,472.20	38.99	1,171.66	1,080.71	90.95	12.882	
12,900.00	11,474.64	13,534.43	12,032.37	50.38	49.83	-118.48	-1,558.34	41.40	1,169.40	1,076.90	92.51	12.641	
13,000.00	11,476.28	13,625.54	12,027.71	51.25	50.65	-118.16	-1,649.27	44.67	1,168.52	1,074.34	94.18	12.408	
13,100.00	11,477.92	13,728.32	12,024.11	52.16	51.61	-117.88	-1,751.95	47.47	1,167.70	1,071.63	96.06	12.155	
13,199.65	11,479.55	13,816.97	12,022.19	53.10	52.47	-117.71	-1,840.56	49.35	1,167.01	1,069.27	97.74	11.940	
13,200.00	11,479.56	13,817.26	12,022.19	53.10	52.47	-117.71	-1,840.85	49.35	1,167.01	1,069.26	97.74	11.939	
13,300.00	11,481.20	13,898.24	12,021.83	54.08	53.27	-117.60	-1,921.80	51.73	1,167.83	1,068.52	99.31	11.760	
13,400.00	11,482.84	13,976.84	12,024.30	55.09	54.08	-117.62	-2,000.32	54.03	1,170.31	1,069.52	100.79	11.611	
13,500.00	11,484.48	14,047.00	12,027.59	56.14	54.81	-117.65	-2,070.33	57.13	1,174.90	1,072.77	102.13	11.504	
13,600.00	11,486.12	14,122.40	12,031.63	57.21	55.63	-117.68	-2,145.45	62.17	1,181.78	1,078.19	103.59	11.408	
13,700.00	11,487.76	14,182.60	12,035.13	58.30	56.29	-117.67	-2,205.27	67.85	1,191.36	1,086.61	104.75	11.373	
13,800.00	11,489.40	14,236.00	12,038.33	59.43	56.88	-117.62	-2,258.09	75.01	1,204.53	1,098.78	105.75	11.391	
13,900.00	11,491.04	14,331.00	12,045.43	60.57	57.96	-117.56	-2,351.72	89.46	1,219.91	1,112.17	107.74	11.323	
14,000.00	11,492.68	14,466.39	12,058.09	61.75	59.55	-117.64	-2,485.38	106.80	1,234.09	1,123.42	110.67	11.151	
14,100.00	11,494.32	14,739.03	12,085.05	62.94	62.84	-118.41	-2,756.20	116.52	1,241.44	1,125.36	116.08	10.695	
14,200.00	11,495.96	14,926.05	12,103.66	64.15	65.13	-119.46	-2,941.37	99.21	1,236.44	1,117.33	119.11	10.381	
14,300.00	11,497.60	14,993.00	12,110.52	65.38	65.95	-119.91	-3,007.39	90.43	1,228.81	1,108.34	120.47	10.200	
14,400.00	11,499.24	15,085.00	12,118.42	66.63	67.11	-120.40	-3,098.62	81.75	1,223.35	1,101.11	122.24	10.008	
14,500.00	11,500.89	15,196.71	12,120.21	67.90	68.54	-120.55	-3,210.12	76.32	1,218.38	1,093.75	124.63	9.776	
14,600.00	11,502.53	15,274.00	12,117.68	69.18	69.54	-120.44	-3,287.35	75.23	1,213.79	1,087.18	126.62	9.586	
14,700.00	11,504.17	15,371.48	12,112.69	70.48	70.82	-120.17	-3,384.70	76.07	1,210.32	1,081.19	129.13	9.373	
14,800.00	11,505.81	15,463.00	12,106.82	71.79	72.04	-119.85	-3,476.01	77.89	1,207.19	1,075.59	131.60	9.173	
14,900.00	11,507.45	15,529.57	12,103.92	73.12	72.94	-119.65	-3,542.49	79.73	1,205.73	1,072.27	133.46	9.034	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 3H (Well B) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,909.93	11,507.61	15,536.61	12,103.77	73.25	73.03	-119.64	-3,549.53	79.94	1,205.71	1,072.07	133.65	9.022	
15,000.00	11,509.09	15,599.97	12,103.73	74.46	73.89	-119.56	-3,612.85	81.94	1,206.71	1,071.43	135.28	8.920	
15,100.00	11,510.73	15,673.72	12,106.46	75.81	74.89	-119.57	-3,686.49	84.68	1,210.12	1,073.06	137.06	8.829	
15,200.00	11,512.37	15,763.91	12,113.11	77.18	76.13	-119.73	-3,776.38	87.76	1,215.11	1,075.98	139.13	8.733	
15,300.00	11,514.01	15,875.25	12,123.15	78.55	77.68	-120.05	-3,887.24	89.64	1,219.42	1,077.79	141.63	8.610	
15,400.00	11,515.65	15,957.87	12,131.84	79.94	78.83	-120.34	-3,969.40	90.78	1,224.32	1,080.93	143.39	8.538	
15,500.00	11,517.29	16,034.91	12,141.75	81.34	79.92	-120.67	-4,045.78	92.33	1,230.99	1,086.06	144.94	8.493	
15,600.00	11,518.93	16,132.11	12,156.61	82.74	81.29	-121.18	-4,141.82	93.99	1,238.75	1,091.89	146.86	8.435	
15,700.00	11,520.57	16,259.82	12,175.69	84.15	83.11	-121.86	-4,268.09	94.79	1,245.52	1,096.05	149.46	8.333	
15,800.00	11,522.21	16,439.77	12,193.54	85.58	85.68	-122.53	-4,447.08	92.84	1,248.46	1,095.18	153.28	8.145	
15,900.00	11,523.85	16,576.32	12,195.47	87.01	87.64	-122.60	-4,583.56	90.56	1,246.10	1,089.60	156.50	7.962	
16,000.00	11,525.49	16,669.77	12,192.70	88.45	88.98	-122.47	-4,676.96	90.17	1,242.51	1,083.45	159.05	7.812	
16,100.00	11,527.13	16,789.24	12,187.29	89.89	90.72	-122.19	-4,796.31	90.80	1,238.93	1,076.62	162.31	7.633	
16,200.00	11,528.77	16,868.12	12,183.92	91.34	91.87	-122.02	-4,875.12	90.97	1,235.17	1,070.52	164.65	7.502	
16,300.00	11,530.42	16,939.34	12,182.59	92.80	92.91	-121.92	-4,946.32	91.61	1,233.31	1,066.60	166.70	7.398	
16,324.00	11,530.81	16,956.06	12,182.62	93.16	93.16	-121.91	-4,963.04	91.85	1,233.23	1,066.06	167.17	7.377	
16,400.00	11,532.06	17,017.66	12,183.52	94.27	94.06	-121.89	-5,024.62	92.98	1,233.72	1,064.92	168.81	7.309	
16,500.00	11,533.70	17,119.43	12,185.95	95.74	95.56	-121.89	-5,126.34	95.11	1,235.12	1,063.66	171.46	7.204	
16,600.00	11,535.34	17,256.02	12,188.80	97.22	97.59	-121.94	-5,262.89	95.41	1,234.82	1,059.93	174.89	7.061	
16,700.00	11,536.98	17,340.59	12,190.26	98.70	98.84	-121.98	-5,347.45	94.77	1,233.44	1,056.33	177.11	6.964	
16,746.51	11,537.74	17,378.01	12,191.09	99.39	99.40	-122.00	-5,384.86	94.80	1,233.26	1,055.16	178.10	6.925	
16,800.00	11,538.62	17,420.22	12,192.40	100.19	100.03	-122.02	-5,427.05	95.04	1,233.50	1,054.31	179.19	6.884	
16,900.00	11,540.26	17,538.06	12,196.05	101.68	101.79	-122.10	-5,544.83	95.93	1,234.21	1,052.03	182.18	6.775	
17,000.00	11,541.90	17,656.93	12,195.52	103.18	103.57	-122.01	-5,663.68	96.55	1,232.74	1,047.36	185.38	6.650	
17,100.00	11,543.54	17,760.31	12,192.96	104.68	105.13	-121.84	-5,767.02	97.58	1,230.63	1,042.29	188.34	6.534	
17,200.00	11,545.18	17,862.91	12,188.09	106.19	106.68	-121.56	-5,869.49	99.44	1,228.02	1,036.57	191.45	6.414	
17,300.00	11,546.82	17,955.47	12,183.73	107.70	108.09	-121.29	-5,961.92	101.48	1,225.80	1,031.48	194.32	6.308	
17,400.00	11,548.46	18,060.49	12,178.80	109.22	109.69	-120.98	-6,066.80	104.23	1,224.00	1,026.44	197.56	6.196	
17,500.00	11,550.10	18,179.55	12,172.07	110.74	111.50	-120.62	-6,185.65	106.08	1,220.77	1,019.59	201.18	6.068	
17,600.00	11,551.74	18,277.70	12,165.84	112.26	113.00	-120.29	-6,283.60	107.30	1,217.00	1,012.69	204.32	5.956	
17,700.00	11,553.38	18,374.29	12,159.93	113.79	114.48	-119.98	-6,379.99	108.58	1,213.44	1,006.02	207.42	5.850	
17,800.00	11,555.02	18,471.08	12,155.01	115.32	115.97	-119.71	-6,476.65	109.69	1,210.29	999.81	210.48	5.750	
17,900.00	11,556.66	18,572.62	12,150.27	116.85	117.53	-119.45	-6,578.07	110.43	1,207.01	993.37	213.64	5.650	
18,000.00	11,558.30	18,666.97	12,146.18	118.39	118.98	-119.21	-6,672.33	111.24	1,204.02	987.41	216.62	5.558	
18,100.00	11,559.94	18,758.08	12,144.62	119.93	120.38	-119.11	-6,763.42	111.18	1,201.53	982.19	219.35	5.478	
18,200.00	11,561.59	18,842.32	12,145.78	121.47	121.68	-119.13	-6,847.66	110.77	1,200.17	978.44	221.73	5.413	
18,252.29	11,562.44	18,886.17	12,147.14	122.28	122.36	-119.16	-6,891.48	110.64	1,199.99	977.07	222.91	5.383	
18,300.00	11,563.23	18,930.34	12,148.92	123.02	123.04	-119.22	-6,935.62	110.60	1,200.12	976.04	224.07	5.356	
18,400.00	11,564.87	19,045.37	12,153.81	124.57	124.82	-119.40	-7,050.53	109.44	1,199.70	972.71	226.99	5.285	
18,500.00	11,566.51	19,145.39	12,157.09	126.12	126.37	-119.52	-7,150.49	108.12	1,198.56	968.95	229.60	5.220	
18,600.00	11,568.15	19,235.66	12,160.95	127.67	127.77	-119.66	-7,240.67	107.06	1,198.03	966.10	231.93	5.165	
18,618.26	11,568.45	19,252.32	12,161.78	127.96	128.03	-119.69	-7,257.31	106.88	1,198.02	965.67	232.35	5.156	
18,700.00	11,569.79	19,336.21	12,166.23	129.23	129.34	-119.86	-7,341.08	106.01	1,198.12	963.69	234.43	5.111	
18,800.00	11,571.43	19,447.02	12,170.92	130.79	131.06	-120.04	-7,451.78	104.45	1,197.38	960.17	237.22	5.048	
18,900.00	11,573.07	19,541.92	12,174.71	132.35	132.54	-120.19	-7,546.59	102.91	1,196.38	956.74	239.64	4.992	
18,983.40	11,574.44	19,617.69	12,177.57	133.65	133.72	-120.29	-7,622.30	102.40	1,196.13	954.51	241.62	4.951	
19,000.00	11,574.71	19,633.00	12,178.04	133.91	133.96	-120.30	-7,637.61	102.43	1,196.14	954.11	242.03	4.942	
19,100.00	11,576.35	19,742.75	12,179.79	135.48	135.68	-120.29	-7,747.33	103.45	1,196.15	951.06	245.09	4.880	
19,200.00	11,577.99	19,861.51	12,178.21	137.04	137.54	-120.15	-7,866.07	104.52	1,194.63	946.03	248.60	4.805	
19,300.00	11,579.63	19,981.21	12,173.65	138.61	139.42	-119.89	-7,985.68	104.92	1,191.37	939.10	252.27	4.723	
19,400.00	11,581.27	20,079.24	12,168.91	140.18	140.96	-119.65	-8,083.60	104.94	1,187.37	931.90	255.47	4.648	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 3H (Well B) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,500.00	11,582.91	20,169.52	12,164.66	141.76	142.38	-119.41	-8,173.77	105.69	1,184.14	925.63	258.51	4.581	
19,600.00	11,584.55	20,265.19	12,161.58	143.33	143.89	-119.23	-8,269.39	106.04	1,181.28	919.71	261.57	4.516	
19,700.00	11,586.19	20,354.97	12,159.36	144.91	145.30	-119.07	-8,359.15	106.87	1,179.27	914.81	264.46	4.459	
19,800.00	11,587.83	20,460.65	12,157.83	146.48	146.97	-118.94	-8,464.80	107.50	1,177.49	909.82	267.67	4.399	
19,900.00	11,589.47	20,554.98	12,157.74	148.06	148.45	-118.91	-8,559.13	106.62	1,175.07	904.62	270.44	4.345	
19,960.91	11,590.47	20,597.56	12,158.63	149.03	149.12	-118.93	-8,601.70	106.47	1,174.52	902.84	271.67	4.323	
20,000.00	11,591.11	20,628.53	12,159.72	149.65	149.61	-118.96	-8,632.65	106.55	1,174.64	902.13	272.51	4.310	
20,100.00	11,592.76	20,723.77	12,164.46	151.23	151.12	-119.12	-8,727.77	106.49	1,175.40	900.45	274.95	4.275	
20,200.00	11,594.40	20,822.31	12,169.53	152.81	152.68	-119.28	-8,826.18	106.87	1,176.63	899.17	277.47	4.241	
20,300.00	11,596.04	20,932.47	12,173.12	154.40	154.43	-119.37	-8,936.28	107.21	1,176.85	896.40	280.45	4.196	
20,400.00	11,597.68	21,018.10	12,177.83	155.98	155.79	-119.53	-9,021.78	107.03	1,177.76	895.19	282.58	4.168	
20,500.00	11,599.32	21,109.71	12,185.58	157.57	157.25	-119.84	-9,113.05	106.30	1,179.65	895.07	284.58	4.145	
20,600.00	11,600.96	21,204.19	12,194.50	159.16	158.75	-120.19	-9,207.11	105.48	1,182.02	895.47	286.55	4.125	
20,700.00	11,602.60	21,299.15	12,203.61	160.75	160.26	-120.53	-9,301.62	105.39	1,185.16	896.63	288.54	4.107	
20,800.00	11,604.24	21,439.37	12,211.21	162.35	162.49	-120.76	-9,441.60	106.35	1,187.00	894.85	292.15	4.063	
20,900.00	11,605.88	21,590.68	12,204.45	163.94	164.90	-120.35	-9,592.66	108.73	1,184.38	887.39	296.99	3.988	
21,000.00	11,607.52	21,705.06	12,191.48	165.53	166.72	-119.69	-9,706.27	111.21	1,178.90	877.47	301.43	3.911	
21,100.00	11,609.16	21,802.95	12,179.78	167.13	168.28	-119.09	-9,803.43	113.33	1,173.28	867.80	305.48	3.841	
21,200.00	11,610.80	21,901.42	12,168.07	168.73	169.85	-118.49	-9,901.18	115.57	1,167.92	858.36	309.56	3.773	
21,300.00	11,612.44	21,996.53	12,156.88	170.32	171.36	-117.91	-9,995.60	117.79	1,162.80	849.24	313.56	3.708	
21,400.00	11,614.08	22,108.34	12,143.45	171.92	173.15	-117.20	-10,106.57	120.43	1,157.77	839.71	318.05	3.640	
21,500.00	11,615.72	22,197.04	12,132.53	173.52	174.56	-116.63	-10,194.58	122.18	1,152.36	830.44	321.93	3.580	
21,600.00	11,617.36	22,288.00	12,121.75	175.12	176.01	-116.06	-10,284.88	123.88	1,147.29	821.47	325.82	3.521	
21,638.81	11,618.00	22,288.00	12,121.75	175.74	176.01	-116.06	-10,284.88	123.88	1,146.43	820.35	326.08	3.516	SF

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 4H (Well A) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	23.00	0.00	0.00	97.57	-19.94	149.99	153.05				
100.00	100.00	77.11	100.11	0.27	0.19	97.57	-19.92	149.97	151.29	150.83	0.46	329.441	
200.00	200.00	177.27	200.27	0.63	0.55	97.54	-19.83	149.85	151.15	149.98	1.18	128.530	
300.00	300.00	277.51	300.51	0.99	0.90	97.73	-20.30	149.58	150.96	149.07	1.88	80.192	
400.00	400.00	377.25	400.25	1.34	1.25	97.75	-20.31	149.30	150.67	148.08	2.59	58.176	
500.00	500.00	477.17	500.17	1.70	1.60	97.46	-19.55	149.26	150.54	147.24	3.30	45.650	
600.00	600.00	577.06	600.05	2.06	1.95	97.18	-18.81	149.31	150.49	146.48	4.01	37.549	
700.00	700.00	677.32	700.31	2.42	2.30	96.80	-17.80	149.30	150.36	145.64	4.72	31.847	
800.00	800.00	777.52	800.50	2.78	2.66	96.42	-16.79	149.16	150.10	144.67	5.44	27.611	
900.00	900.00	877.81	900.79	3.14	3.02	96.02	-15.69	148.84	149.67	143.52	6.15	24.325	
1,000.00	1,000.00	978.27	1,001.24	3.50	3.38	95.70	-14.80	148.28	149.02	142.15	6.87	21.691	
1,100.00	1,100.00	1,078.46	1,101.42	3.85	3.73	95.41	-13.95	147.38	148.05	140.46	7.59	19.514	
1,200.00	1,200.00	1,178.53	1,201.48	4.21	4.09	95.13	-13.16	146.56	147.16	138.85	8.30	17.725	
1,300.00	1,300.00	1,277.66	1,300.61	4.57	4.44	94.99	-12.69	145.48	146.03	137.02	9.01	16.206	
1,314.95	1,314.95	1,291.98	1,314.93	4.62	4.49	94.95	-12.60	145.46	146.00	136.89	9.11	16.018	CC, ES
1,400.00	1,400.00	1,373.29	1,396.22	4.93	4.77	94.60	-11.80	146.55	147.07	137.38	9.70	15.163	
1,500.00	1,500.00	1,470.06	1,492.90	5.29	5.11	93.86	-10.14	150.53	151.04	140.65	10.38	14.544	
1,600.00	1,599.98	1,569.11	1,591.80	5.64	5.45	-162.04	-8.46	155.51	157.62	146.54	11.07	14.236	
1,700.00	1,699.84	1,665.28	1,687.78	5.97	5.79	-163.36	-6.27	161.18	168.41	156.68	11.73	14.352	
1,800.00	1,799.45	1,760.22	1,782.30	6.32	6.13	-165.17	-2.80	169.36	185.31	172.92	12.39	14.956	
1,900.00	1,898.76	1,857.31	1,878.88	6.67	6.48	-167.07	1.19	178.47	206.11	193.04	13.07	15.773	
2,000.00	1,998.01	1,954.71	1,975.73	7.03	6.83	-168.83	5.70	187.70	227.64	213.90	13.75	16.559	
2,100.00	2,097.27	2,051.79	2,072.25	7.39	7.19	-170.38	10.68	196.89	249.38	234.95	14.43	17.284	
2,200.00	2,196.52	2,148.64	2,168.50	7.76	7.55	-171.76	15.98	206.23	271.48	256.37	15.11	17.966	
2,300.00	2,295.78	2,245.12	2,264.36	8.14	7.91	-172.97	21.53	215.68	293.89	278.10	15.79	18.609	
2,400.00	2,395.03	2,340.10	2,358.65	8.51	8.27	-174.11	27.66	225.33	316.87	300.41	16.47	19.244	
2,500.00	2,494.29	2,439.27	2,457.07	8.89	8.65	-175.11	33.97	235.78	340.33	323.16	17.17	19.816	
2,600.00	2,593.54	2,537.22	2,554.43	9.27	9.02	-175.64	38.00	245.67	363.00	345.13	17.87	20.309	
2,700.00	2,692.80	2,632.16	2,648.77	9.66	9.38	175.58	41.93	255.59	386.01	367.45	18.55	20.808	
2,800.00	2,792.07	2,733.53	2,749.50	10.04	9.77	162.28	44.68	266.55	408.74	389.46	19.28	21.200	
2,900.00	2,891.33	2,837.81	2,853.27	10.43	10.16	163.11	44.41	276.81	429.90	409.87	20.03	21.467	
3,000.00	2,990.58	2,941.46	2,956.56	10.82	10.54	163.77	44.51	285.42	449.70	428.93	20.77	21.655	
3,100.00	3,089.84	3,034.00	3,048.76	11.21	10.89	164.16	45.85	293.25	469.89	448.45	21.43	21.922	
3,200.00	3,189.09	3,124.18	3,138.49	11.60	11.23	164.50	47.45	302.07	491.40	469.32	22.08	22.252	
3,300.00	3,288.35	3,235.65	3,249.53	11.99	11.65	164.97	48.42	311.77	511.78	488.89	22.88	22.363	
3,400.00	3,387.60	3,325.50	3,339.06	12.38	11.98	165.37	48.70	319.33	531.84	508.30	23.54	22.598	
3,500.00	3,486.86	3,417.19	3,430.30	12.78	12.33	165.76	49.06	328.29	553.26	529.06	24.20	22.865	
3,600.00	3,586.11	3,520.67	3,533.29	13.17	12.72	166.07	50.41	338.23	574.66	549.71	24.95	23.036	
3,700.00	3,685.37	3,625.36	3,637.58	13.57	13.12	166.25	52.79	347.15	595.13	569.43	25.70	23.154	
3,800.00	3,784.62	3,730.78	3,742.71	13.97	13.51	166.36	55.67	354.35	613.99	587.52	26.46	23.202	
3,900.00	3,883.88	3,824.97	3,836.64	14.36	13.86	166.40	58.74	360.73	632.87	605.72	27.15	23.310	
4,000.00	3,983.13	3,918.99	3,930.33	14.76	14.22	166.40	62.24	367.71	652.46	624.62	27.84	23.439	
4,100.00	4,082.39	4,014.04	4,025.00	15.16	14.58	166.37	66.28	375.17	672.51	643.98	28.53	23.572	
4,200.00	4,181.64	4,108.94	4,119.45	15.56	14.94	166.27	71.14	382.97	693.02	663.80	29.22	23.714	
4,300.00	4,280.90	4,210.15	4,220.15	15.96	15.33	166.12	76.91	391.39	713.73	683.77	29.96	23.820	
4,400.00	4,380.15	4,315.84	4,325.42	16.36	15.73	166.03	82.20	399.10	733.33	702.59	30.73	23.863	
4,500.00	4,479.40	4,421.77	4,431.06	16.76	16.13	166.06	85.82	406.14	752.12	720.62	31.49	23.881	
4,600.00	4,578.66	4,525.76	4,534.85	17.16	16.51	166.20	87.79	412.17	769.87	737.63	32.24	23.877	
4,700.00	4,677.91	4,629.93	4,638.85	17.56	16.90	166.28	90.36	417.46	787.00	754.01	32.99	23.854	
4,800.00	4,777.17	4,733.48	4,742.26	17.96	17.27	166.31	93.52	421.92	803.45	769.71	33.74	23.815	
4,900.00	4,876.42	4,833.81	4,842.44	18.36	17.64	166.29	97.29	425.72	819.47	785.00	34.46	23.778	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 4H (Well A) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,975.68	4,926.55	4,935.04	18.76	17.98	166.25	100.99	429.47	835.78	800.63	35.15	23.778	
5,100.00	5,074.93	5,015.00	5,023.33	19.17	18.30	166.24	104.26	433.62	852.71	816.90	35.81	23.813	
5,200.00	5,174.19	5,110.00	5,118.12	19.57	18.66	166.29	106.98	439.30	870.77	834.27	36.51	23.853	
5,300.00	5,273.44	5,199.91	5,207.78	19.97	18.99	166.38	109.00	445.67	889.81	852.64	37.17	23.940	
5,400.00	5,372.70	5,298.00	5,305.59	20.37	19.36	166.47	111.25	452.69	908.95	871.07	37.88	23.993	
5,500.00	5,471.95	5,396.05	5,403.36	20.78	19.73	166.55	113.63	459.70	928.11	889.51	38.60	24.045	
5,600.00	5,571.21	5,495.95	5,502.98	21.18	20.10	166.61	116.31	466.70	947.15	907.83	39.33	24.083	
5,700.00	5,670.46	5,589.68	5,596.44	21.58	20.46	166.67	118.79	473.43	966.37	926.35	40.02	24.150	
5,800.00	5,769.72	5,684.90	5,691.35	21.99	20.82	166.73	121.23	480.64	985.96	945.25	40.71	24.217	
5,900.00	5,868.97	5,782.72	5,788.84	22.39	21.19	166.79	123.87	488.18	1,005.70	964.27	41.43	24.275	
6,000.00	5,968.23	5,881.54	5,887.33	22.79	21.56	166.84	126.59	495.75	1,025.41	983.25	42.15	24.326	
6,100.00	6,067.48	5,980.33	5,985.80	23.20	21.93	166.89	129.34	503.25	1,045.03	1,002.16	42.87	24.374	
6,200.00	6,166.74	6,078.11	6,083.26	23.60	22.30	166.93	132.10	510.63	1,064.63	1,021.04	43.59	24.423	
6,300.00	6,265.99	6,175.23	6,180.05	24.01	22.67	166.96	135.14	518.01	1,084.31	1,040.01	44.30	24.475	
6,400.00	6,365.25	6,273.21	6,277.70	24.41	23.04	166.97	138.37	525.46	1,104.02	1,059.00	45.02	24.522	
6,500.00	6,464.50	6,370.97	6,375.11	24.82	23.41	166.99	141.62	532.92	1,123.76	1,078.02	45.74	24.569	
6,600.00	6,563.76	6,471.76	6,475.56	25.22	23.79	167.01	144.88	540.56	1,143.44	1,096.96	46.48	24.603	
6,700.00	6,663.01	6,574.08	6,577.57	25.63	24.18	167.04	147.80	547.94	1,162.71	1,115.49	47.22	24.622	
6,800.00	6,762.27	6,672.84	6,676.05	26.03	24.55	167.07	150.68	554.88	1,181.81	1,133.86	47.95	24.649	
6,900.00	6,861.52	6,775.50	6,778.42	26.44	24.94	167.10	153.77	561.98	1,200.81	1,152.12	48.69	24.661	
7,000.00	6,960.78	6,877.59	6,880.26	26.84	25.32	167.13	156.49	568.56	1,219.32	1,169.88	49.44	24.664	
7,100.00	7,060.03	6,979.86	6,982.29	27.25	25.70	167.17	159.18	574.93	1,237.60	1,187.42	50.18	24.663	
7,200.00	7,159.29	7,080.44	7,082.66	27.65	26.08	167.20	161.93	580.88	1,255.60	1,204.68	50.91	24.661	
7,300.00	7,258.54	7,184.34	7,186.37	28.06	26.46	167.27	163.85	586.84	1,273.33	1,221.66	51.67	24.645	
7,400.00	7,357.80	7,281.00	7,282.87	28.46	26.81	167.38	164.56	592.34	1,290.90	1,238.53	52.37	24.649	
7,500.00	7,457.05	7,388.27	7,389.98	28.87	27.20	167.52	164.89	598.25	1,308.26	1,255.12	53.14	24.619	
7,600.00	7,556.31	7,500.90	7,502.49	29.27	27.61	167.66	165.25	603.29	1,324.59	1,270.66	53.93	24.560	
7,700.00	7,655.56	7,601.67	7,603.19	29.68	27.97	167.77	165.58	607.27	1,340.42	1,285.76	54.66	24.522	
7,800.00	7,754.82	7,706.69	7,708.13	30.08	28.35	167.88	166.04	611.23	1,356.11	1,300.70	55.41	24.473	
7,900.00	7,854.07	7,824.53	7,825.92	30.49	28.76	168.02	166.16	614.53	1,370.82	1,314.59	56.22	24.382	
8,000.00	7,953.33	7,943.06	7,944.44	30.90	29.17	168.17	165.64	616.17	1,384.06	1,327.04	57.02	24.273	
8,100.00	8,052.58	8,038.00	8,039.37	31.30	29.49	168.29	165.22	617.04	1,396.86	1,339.15	57.71	24.203	
8,200.00	8,151.84	8,132.00	8,133.37	31.71	29.81	168.40	165.07	618.09	1,409.89	1,351.48	58.41	24.139	
8,300.00	8,251.09	8,226.00	8,227.36	32.11	30.14	168.49	165.23	619.45	1,423.28	1,364.18	59.10	24.082	
8,400.00	8,350.35	8,324.08	8,325.42	32.52	30.49	168.58	165.60	621.17	1,436.98	1,377.17	59.81	24.024	
8,500.00	8,449.60	8,419.75	8,421.07	32.93	30.82	168.64	166.35	622.88	1,450.77	1,390.25	60.52	23.973	
8,600.00	8,548.86	8,515.86	8,517.16	33.33	31.16	168.70	167.46	624.82	1,464.80	1,403.58	61.22	23.926	
8,700.00	8,648.11	8,631.72	8,633.00	33.74	31.57	168.75	169.00	626.57	1,478.36	1,416.34	62.02	23.837	
8,800.00	8,747.37	8,742.16	8,743.42	34.15	31.95	168.78	170.89	626.96	1,490.78	1,428.00	62.78	23.745	
8,900.00	8,846.62	8,848.56	8,849.79	34.55	32.31	168.78	173.33	626.92	1,502.89	1,439.37	63.52	23.659	
9,000.00	8,945.88	8,984.63	8,985.84	34.96	32.76	168.88	173.79	625.18	1,513.67	1,449.32	64.35	23.522	
9,100.00	9,045.13	9,114.39	9,115.48	35.36	33.15	169.08	171.16	620.45	1,521.81	1,456.69	65.12	23.369	
9,200.00	9,144.39	9,223.27	9,224.18	35.77	33.48	169.29	167.73	615.27	1,528.83	1,463.00	65.83	23.224	
9,300.00	9,243.64	9,330.58	9,331.29	36.18	33.81	169.50	164.31	609.66	1,535.38	1,468.85	66.53	23.078	
9,400.00	9,342.90	9,436.27	9,436.76	36.58	34.13	169.69	160.96	603.62	1,541.47	1,474.24	67.23	22.928	
9,500.00	9,442.15	9,526.37	9,526.67	36.99	34.41	169.86	157.95	598.55	1,547.66	1,479.76	67.90	22.794	
9,600.00	9,541.40	9,611.09	9,611.23	37.40	34.67	170.03	154.94	594.49	1,554.68	1,486.13	68.55	22.679	
9,700.00	9,640.66	9,695.22	9,695.25	37.80	34.93	170.20	151.94	591.30	1,562.72	1,493.52	69.20	22.583	
9,800.00	9,739.91	9,788.34	9,788.28	38.21	35.22	170.38	148.82	588.54	1,571.58	1,501.71	69.87	22.492	
9,900.00	9,839.36	9,885.24	9,885.09	38.61	35.53	170.56	146.01	585.75	1,578.91	1,508.36	70.55	22.379	
10,000.00	9,939.11	9,981.48	9,981.28	38.98	35.84	170.69	143.88	583.19	1,583.06	1,511.83	71.23	22.225	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 4H (Well A) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,039.04	10,079.55	10,079.30	39.33	36.15	170.78	142.00	580.73	1,583.95	1,512.04	71.91	22.027	
10,200.00	10,139.04	10,177.22	10,176.93	39.65	36.47	87.36	140.80	578.36	1,581.92	1,509.35	72.57	21.798	
10,300.00	10,239.04	10,275.11	10,274.80	39.97	36.78	87.37	140.56	576.10	1,579.60	1,506.36	73.23	21.569	
10,400.00	10,339.04	10,369.93	10,369.58	40.28	37.10	87.35	141.07	574.06	1,577.47	1,503.58	73.89	21.349	
10,500.00	10,439.04	10,464.73	10,464.37	40.60	37.41	87.31	141.95	572.34	1,575.71	1,501.16	74.55	21.137	
10,600.00	10,539.04	10,558.53	10,558.15	40.92	37.72	87.28	142.91	570.96	1,574.29	1,499.08	75.20	20.934	
10,700.00	10,639.04	10,663.21	10,662.83	41.24	38.07	87.25	143.62	569.56	1,572.99	1,497.09	75.90	20.725	
10,800.00	10,739.04	10,769.22	10,768.82	41.56	38.42	87.25	143.47	567.76	1,571.28	1,494.69	76.60	20.514	
10,900.00	10,839.04	10,867.38	10,866.96	41.89	38.74	87.27	142.91	565.96	1,569.42	1,492.15	77.26	20.312	
11,000.00	10,938.95	10,963.18	10,962.75	42.20	39.06	-92.35	142.09	564.41	1,567.87	1,489.95	77.92	20.122	
11,100.00	11,037.16	11,060.38	11,059.91	42.50	39.38	-92.98	139.94	563.09	1,567.24	1,488.68	78.56	19.951	
11,189.91	11,121.58	11,176.55	11,175.97	42.74	39.76	-94.31	135.70	560.56	1,566.99	1,487.78	79.21	19.782	
11,200.00	11,130.73	11,182.97	11,182.38	42.77	39.78	-94.41	135.50	560.38	1,567.00	1,487.73	79.26	19.770	
11,300.00	11,216.80	11,276.42	11,275.74	43.01	40.08	-95.92	132.66	557.30	1,568.21	1,488.36	79.84	19.641	
11,400.00	11,292.78	11,354.11	11,353.36	43.23	40.33	-97.23	131.18	554.49	1,573.06	1,492.71	80.36	19.576	
11,500.00	11,356.34	11,413.32	11,412.54	43.41	40.53	-97.85	130.49	552.38	1,583.31	1,502.52	80.79	19.599	
11,600.00	11,405.56	11,459.73	11,458.92	43.59	40.68	-97.61	130.14	550.83	1,600.16	1,519.02	81.14	19.720	
11,700.00	11,438.94	11,492.64	11,491.81	43.79	40.79	-96.28	129.86	549.78	1,624.16	1,542.74	81.42	19.948	
11,800.00	11,455.47	11,509.60	11,508.76	44.02	40.84	-93.63	129.69	549.26	1,655.21	1,573.61	81.60	20.285	
11,900.00	11,458.23	11,513.31	11,512.47	44.31	40.86	-92.41	129.65	549.15	1,692.44	1,610.75	81.70	20.717	
12,000.00	11,459.87	12,632.00	12,194.71	44.67	43.94	-115.34	-580.60	558.14	1,719.77	1,638.05	81.72	21.045	
12,100.00	11,461.51	12,714.78	12,199.24	45.08	44.30	-115.42	-663.22	560.55	1,723.23	1,640.80	82.43	20.905	
12,200.00	11,463.15	12,821.47	12,206.47	45.56	44.82	-115.55	-769.62	563.61	1,727.21	1,643.88	83.33	20.727	
12,300.00	11,464.79	12,906.64	12,212.80	46.10	45.29	-115.68	-854.52	565.89	1,731.31	1,647.10	84.21	20.559	
12,400.00	11,466.43	13,010.00	12,221.64	46.69	45.90	-115.87	-957.48	568.14	1,735.44	1,650.18	85.27	20.352	
12,500.00	11,468.07	13,104.00	12,230.63	47.33	46.51	-116.08	-1,051.03	569.99	1,739.88	1,653.54	86.35	20.150	
12,600.00	11,469.72	13,272.65	12,239.49	48.02	47.68	-116.23	-1,219.35	573.22	1,742.21	1,654.05	88.16	19.763	
12,700.00	11,471.36	13,385.15	12,238.68	48.77	48.53	-116.13	-1,331.81	575.97	1,742.53	1,652.82	89.71	19.424	
12,800.00	11,473.00	13,508.59	12,234.43	49.55	49.53	-115.92	-1,455.14	578.94	1,741.57	1,650.04	91.53	19.027	
12,900.00	11,474.64	13,592.43	12,231.01	50.38	50.24	-115.75	-1,538.88	581.22	1,740.69	1,647.68	93.02	18.714	
12,927.92	11,475.09	13,614.03	12,230.38	50.62	50.43	-115.72	-1,560.46	581.84	1,740.64	1,647.22	93.42	18.631	
13,000.00	11,476.28	13,671.00	12,229.67	51.25	50.93	-115.66	-1,617.40	583.46	1,740.98	1,646.51	94.47	18.428	
13,100.00	11,477.92	13,771.28	12,229.25	52.16	51.84	-115.57	-1,717.64	586.38	1,741.88	1,645.66	96.22	18.103	
13,200.00	11,479.56	13,873.00	12,229.09	53.10	52.80	-115.49	-1,819.32	589.11	1,742.70	1,644.65	98.05	17.774	
13,300.00	11,481.20	13,973.57	12,230.34	54.08	53.79	-115.46	-1,919.86	590.97	1,743.37	1,643.46	99.90	17.451	
13,400.00	11,482.84	14,068.26	12,230.23	55.09	54.75	-115.39	-2,014.51	593.71	1,744.38	1,642.61	101.77	17.141	
13,500.00	11,484.48	14,179.81	12,231.87	56.14	55.91	-115.37	-2,126.03	595.45	1,744.87	1,640.99	103.88	16.797	
13,600.00	11,486.12	14,302.54	12,234.35	57.21	57.23	-115.38	-2,248.73	596.57	1,745.12	1,638.94	106.18	16.436	
13,700.00	11,487.76	14,405.03	12,232.85	58.30	58.37	-115.29	-2,351.20	597.51	1,743.78	1,635.46	108.32	16.098	
13,800.00	11,489.40	14,506.13	12,230.77	59.43	59.51	-115.17	-2,452.26	599.07	1,742.76	1,632.25	110.51	15.770	
13,900.00	11,491.04	14,601.42	12,230.18	60.57	60.61	-115.11	-2,547.54	599.87	1,741.73	1,629.09	112.64	15.463	
13,954.87	11,491.94	14,637.24	12,230.79	61.22	61.03	-115.11	-2,583.36	599.99	1,741.49	1,627.93	113.57	15.335	
14,000.00	11,492.68	14,662.09	12,231.46	61.75	61.32	-115.12	-2,608.20	600.32	1,741.86	1,627.60	114.26	15.245	
14,100.00	11,494.32	14,719.12	12,233.80	62.94	62.00	-115.14	-2,665.15	601.90	1,744.54	1,628.75	115.80	15.066	
14,200.00	11,495.96	14,809.66	12,239.38	64.15	63.10	-115.23	-2,755.46	604.95	1,748.68	1,630.84	117.85	14.839	
14,300.00	11,497.60	14,948.72	12,248.89	65.38	64.82	-115.45	-2,894.18	606.35	1,750.61	1,629.97	120.64	14.510	
14,400.00	11,499.24	15,039.54	12,255.09	66.63	65.96	-115.58	-2,984.79	607.91	1,753.52	1,630.78	122.74	14.286	
14,500.00	11,500.89	15,171.24	12,264.23	67.90	67.63	-115.79	-3,116.16	608.18	1,755.13	1,629.66	125.47	13.989	
14,600.00	11,502.53	15,262.97	12,270.78	69.18	68.81	-115.96	-3,207.65	607.63	1,756.17	1,628.57	127.61	13.763	
14,700.00	11,504.17	15,352.57	12,276.76	70.48	69.98	-116.10	-3,297.06	607.93	1,757.87	1,628.12	129.74	13.549	
14,800.00	11,505.81	15,449.22	12,283.68	71.79	71.25	-116.26	-3,393.45	608.49	1,759.99	1,627.99	132.00	13.333	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 552H - 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
20,300.00	11,596.04	20,287.96	11,593.11	154.40	79.17	-89.87	-8,945.97	401.74	1,320.01	1,087.04	232.97	5.666	
20,400.00	11,597.68	20,387.96	11,594.75	155.98	79.83	-89.87	-9,045.95	402.66	1,320.01	1,084.79	235.22	5.612	
20,500.00	11,599.32	20,487.96	11,596.38	157.57	80.49	-89.87	-9,145.93	403.58	1,320.01	1,082.54	237.47	5.559	
20,600.00	11,600.96	20,587.96	11,598.02	159.16	81.16	-89.87	-9,245.92	404.50	1,320.01	1,080.28	239.73	5.506	
20,700.00	11,602.60	20,687.96	11,599.65	160.75	81.82	-89.87	-9,345.90	405.43	1,320.01	1,078.02	241.99	5.455	
20,800.00	11,604.24	20,787.96	11,601.28	162.35	82.49	-89.87	-9,445.88	406.35	1,320.01	1,075.75	244.26	5.404	
20,900.00	11,605.88	20,887.96	11,602.92	163.94	83.15	-89.87	-9,545.86	407.27	1,320.01	1,073.49	246.52	5.355	
21,000.00	11,607.52	20,987.96	11,604.55	165.53	83.82	-89.87	-9,645.84	408.19	1,320.01	1,071.22	248.79	5.306	
21,100.00	11,609.16	21,087.96	11,606.19	167.13	84.49	-89.87	-9,745.83	409.11	1,320.01	1,068.94	251.06	5.258	
21,200.00	11,610.80	21,187.96	11,607.82	168.73	85.17	-89.87	-9,845.81	410.03	1,320.01	1,066.67	253.34	5.210	
21,300.00	11,612.44	21,287.96	11,609.46	170.32	85.84	-89.87	-9,945.79	410.95	1,320.01	1,064.39	255.61	5.164	
21,400.00	11,614.08	21,387.96	11,611.09	171.92	86.52	-89.87	-10,045.77	411.88	1,320.01	1,062.11	257.89	5.118	
21,500.00	11,615.72	21,487.96	11,612.72	173.52	87.19	-89.87	-10,145.76	412.80	1,320.01	1,059.83	260.18	5.074	
21,600.00	11,617.36	21,587.96	11,614.36	175.12	87.87	-89.87	-10,245.74	413.72	1,320.01	1,057.55	262.46	5.029	
21,638.81	11,618.00	21,626.77	11,614.99	175.74	88.14	-89.87	-10,284.55	414.08	1,320.01	1,056.66	263.35	5.012	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 4H (Well A) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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
14,900.00	11,507.45	15,622.09	12,290.79	73.12	73.55	-116.40	-3,566.10	609.01	1,760.85	1,625.30	135.55	12.990	
15,000.00	11,509.09	15,754.00	12,288.61	74.46	75.31	-116.32	-3,697.95	606.99	1,756.93	1,618.36	138.57	12.679	
15,100.00	11,510.73	15,845.40	12,285.82	75.81	76.55	-116.22	-3,789.30	606.51	1,753.54	1,612.51	141.04	12.433	
15,200.00	11,512.37	15,937.71	12,282.43	77.18	77.82	-116.08	-3,881.55	606.61	1,750.48	1,606.93	143.55	12.194	
15,300.00	11,514.01	16,026.97	12,279.77	78.55	79.05	-115.97	-3,970.77	606.93	1,747.94	1,601.92	146.03	11.970	
15,400.00	11,515.65	16,113.70	12,278.40	79.94	80.25	-115.89	-4,057.49	607.31	1,746.09	1,597.65	148.45	11.763	
15,500.00	11,517.29	16,226.00	12,277.99	81.34	81.81	-115.85	-4,169.78	606.70	1,743.86	1,592.59	151.27	11.528	
15,600.00	11,518.93	16,321.00	12,277.71	82.74	83.14	-115.81	-4,264.78	606.32	1,741.82	1,588.01	153.82	11.324	
15,700.00	11,520.57	16,399.09	12,278.07	84.15	84.25	-115.79	-4,342.86	606.92	1,741.04	1,584.95	156.09	11.154	
15,800.00	11,522.21	16,525.45	12,276.82	85.58	86.04	-115.69	-4,469.21	607.97	1,739.86	1,580.60	159.26	10.925	
15,900.00	11,523.85	16,657.86	12,269.80	87.01	87.95	-115.43	-4,601.42	608.68	1,736.42	1,573.75	162.67	10.674	
16,000.00	11,525.49	16,768.95	12,261.56	88.45	89.55	-115.13	-4,712.21	609.24	1,732.17	1,566.38	165.79	10.448	
16,100.00	11,527.13	16,852.80	12,255.37	89.89	90.77	-114.91	-4,795.82	609.53	1,727.86	1,559.42	168.44	10.258	
16,200.00	11,528.77	16,935.11	12,251.42	91.34	91.97	-114.76	-4,878.04	609.96	1,724.78	1,553.77	171.01	10.086	
16,300.00	11,530.42	17,028.40	12,247.67	92.80	93.33	-114.60	-4,971.25	610.85	1,722.43	1,548.66	173.77	9.912	
16,400.00	11,532.06	17,124.16	12,244.38	94.27	94.74	-114.45	-5,066.94	611.66	1,720.25	1,543.68	176.57	9.742	
16,500.00	11,533.70	17,229.20	12,241.13	95.74	96.28	-114.30	-5,171.92	612.62	1,718.30	1,538.75	179.56	9.570	
16,600.00	11,535.34	17,306.51	12,238.89	97.22	97.43	-114.19	-5,249.20	613.17	1,716.34	1,534.32	182.03	9.429	
16,642.30	11,536.03	17,332.38	12,238.81	97.85	97.81	-114.18	-5,275.07	613.50	1,716.14	1,533.23	182.91	9.382	
16,700.00	11,536.98	17,358.00	12,239.14	98.70	98.19	-114.17	-5,300.68	613.91	1,716.56	1,532.67	183.89	9.335	
16,800.00	11,538.62	17,433.62	12,242.89	100.19	99.32	-114.24	-5,376.18	615.23	1,718.79	1,532.70	186.09	9.236	
16,900.00	11,540.26	17,545.37	12,252.42	101.68	100.99	-114.47	-5,487.52	616.81	1,722.13	1,533.22	188.91	9.116	
17,000.00	11,541.90	17,683.18	12,259.10	103.18	103.06	-114.61	-5,625.15	617.06	1,722.47	1,530.16	192.31	8.957	
17,100.00	11,543.54	17,799.08	12,264.01	104.68	104.80	-114.71	-5,740.93	617.80	1,723.43	1,528.12	195.31	8.824	
17,200.00	11,545.18	17,942.00	12,258.70	106.19	106.95	-114.48	-5,883.72	619.05	1,720.93	1,521.81	199.12	8.643	
17,300.00	11,546.82	18,018.00	12,256.50	107.70	108.10	-114.38	-5,959.68	619.62	1,718.84	1,517.19	201.65	8.524	
17,400.00	11,548.46	18,092.79	12,257.01	109.22	109.23	-114.36	-6,034.46	620.14	1,718.17	1,514.14	204.04	8.421	
17,500.00	11,550.10	18,205.45	12,258.78	110.74	110.94	-114.36	-6,147.11	620.85	1,717.90	1,510.80	207.11	8.295	
17,600.00	11,551.74	18,301.00	12,257.99	112.26	112.40	-114.29	-6,242.64	621.68	1,716.85	1,506.90	209.95	8.178	
17,700.00	11,553.38	18,395.00	12,256.27	113.79	113.83	-114.17	-6,336.61	623.64	1,716.49	1,503.67	212.82	8.066	
17,800.00	11,555.02	18,534.93	12,247.77	115.32	115.98	-113.81	-6,476.19	627.52	1,715.02	1,498.19	216.82	7.910	
17,900.00	11,556.66	18,624.64	12,240.53	116.85	117.36	-113.52	-6,565.58	629.78	1,712.59	1,492.74	219.86	7.790	
18,000.00	11,558.30	18,702.09	12,236.76	118.39	118.56	-113.35	-6,642.91	631.63	1,711.35	1,488.82	222.53	7.690	
18,046.50	11,559.07	18,738.60	12,235.66	119.11	119.12	-113.29	-6,679.39	632.59	1,711.22	1,487.46	223.75	7.648	
18,100.00	11,559.94	18,785.25	12,234.75	119.93	119.84	-113.23	-6,726.01	633.90	1,711.38	1,486.14	225.24	7.598	
18,200.00	11,561.59	18,893.28	12,235.79	121.47	121.50	-113.20	-6,834.02	635.14	1,711.30	1,482.97	228.33	7.495	
18,206.39	11,561.69	18,898.55	12,235.97	121.57	121.59	-113.21	-6,839.28	635.15	1,711.30	1,482.81	228.49	7.490	
18,300.00	11,563.23	18,981.90	12,240.41	123.02	122.87	-113.31	-6,922.51	635.01	1,711.72	1,480.85	230.87	7.414	
18,400.00	11,564.87	19,083.91	12,246.21	124.57	124.45	-113.46	-7,024.35	634.50	1,712.02	1,478.38	233.64	7.328	
18,500.00	11,566.51	19,167.17	12,253.28	126.12	125.74	-113.66	-7,107.30	633.79	1,713.11	1,477.17	235.95	7.261	
18,600.00	11,568.15	19,284.35	12,262.84	127.67	127.56	-113.91	-7,224.09	633.05	1,714.36	1,475.48	238.88	7.177	
18,700.00	11,569.79	19,440.34	12,267.85	129.23	129.98	-114.03	-7,379.96	631.51	1,713.28	1,470.61	242.67	7.060	
18,800.00	11,571.43	19,538.80	12,267.84	130.79	131.50	-114.01	-7,478.42	630.35	1,710.68	1,465.11	245.58	6.966	
18,900.00	11,573.07	19,650.83	12,265.87	132.35	133.25	-113.92	-7,590.42	629.16	1,707.48	1,458.68	248.80	6.863	
19,000.00	11,574.71	19,748.63	12,263.43	133.91	134.77	-113.82	-7,688.19	628.41	1,704.25	1,452.43	251.82	6.768	
19,100.00	11,576.35	19,845.72	12,260.38	135.48	136.28	-113.70	-7,785.23	627.75	1,700.87	1,446.00	254.87	6.673	
19,200.00	11,577.99	19,924.75	12,259.83	137.04	137.52	-113.66	-7,864.25	627.13	1,698.37	1,440.86	257.50	6.596	
19,300.00	11,579.63	19,999.00	12,261.89	138.61	138.68	-113.70	-7,938.47	626.54	1,697.26	1,437.36	259.89	6.531	
19,400.00	11,581.27	20,094.66	12,265.62	140.18	140.18	-113.78	-8,034.05	626.24	1,697.04	1,434.41	262.63	6.462	
19,500.00	11,582.91	20,209.78	12,266.86	141.76	141.99	-113.77	-8,149.16	626.93	1,696.52	1,430.63	265.89	6.381	
19,600.00	11,584.55	20,325.54	12,263.71	143.33	143.81	-113.61	-8,264.86	628.40	1,695.09	1,425.73	269.36	6.293	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 4H (Well A) - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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
19,700.00	11,586.19	20,438.32	12,258.88	144.91	145.59	-113.40	-8,377.53	629.52	1,692.78	1,419.94	272.83	6.204	
19,800.00	11,587.83	20,541.01	12,252.51	146.48	147.21	-113.14	-8,480.01	630.83	1,690.00	1,413.79	276.21	6.118	
19,900.00	11,589.47	20,634.67	12,246.33	148.06	148.69	-112.90	-8,573.46	632.30	1,687.37	1,407.93	279.44	6.038	
20,000.00	11,591.11	20,769.97	12,236.28	149.65	150.82	-112.50	-8,708.37	634.04	1,684.29	1,400.77	283.53	5.941	
20,100.00	11,592.76	20,848.00	12,229.98	151.23	152.06	-112.27	-8,786.14	634.78	1,680.59	1,394.05	286.53	5.865	
20,200.00	11,594.40	20,932.97	12,224.16	152.81	153.40	-112.03	-8,870.90	635.91	1,677.78	1,388.16	289.62	5.793	
20,300.00	11,596.04	21,012.78	12,221.07	154.40	154.67	-111.89	-8,950.64	637.02	1,676.15	1,383.69	292.46	5.731	
20,366.59	11,597.13	21,062.24	12,220.91	155.45	155.45	-111.86	-9,000.09	637.56	1,675.77	1,381.61	294.17	5.697	
20,400.00	11,597.68	21,085.51	12,221.37	155.98	155.82	-111.86	-9,023.35	637.81	1,675.87	1,380.92	294.95	5.682	
20,500.00	11,599.32	21,162.31	12,225.11	157.57	157.04	-111.93	-9,100.05	638.75	1,677.31	1,380.00	297.32	5.641	
20,600.00	11,600.96	21,253.90	12,230.35	159.16	158.50	-112.04	-9,191.48	640.31	1,679.56	1,379.61	299.95	5.599	
20,700.00	11,602.60	21,357.83	12,237.98	160.75	160.16	-112.22	-9,295.12	641.79	1,682.19	1,379.42	302.78	5.556	
20,800.00	11,604.24	21,506.95	12,241.78	162.35	162.53	-112.25	-9,444.12	644.11	1,683.18	1,376.37	306.81	5.486	
20,900.00	11,605.88	21,596.68	12,241.28	163.94	163.96	-112.19	-9,533.85	645.39	1,682.83	1,373.10	309.72	5.433	
21,000.00	11,607.52	21,711.13	12,240.51	165.53	165.78	-112.10	-9,648.27	646.95	1,682.37	1,369.21	313.16	5.372	
21,100.00	11,609.16	21,819.45	12,237.87	167.13	167.51	-111.95	-9,756.55	648.44	1,681.26	1,364.69	316.56	5.311	
21,200.00	11,610.80	21,920.59	12,233.66	168.73	169.13	-111.76	-9,857.59	649.98	1,679.65	1,359.74	319.91	5.250	
21,300.00	11,612.44	22,014.87	12,231.99	170.32	170.63	-111.65	-9,951.84	651.01	1,678.54	1,355.54	323.00	5.197	
21,400.00	11,614.08	22,116.63	12,231.96	171.92	172.25	-111.61	-10,053.61	651.23	1,677.26	1,351.14	326.12	5.143	
21,500.00	11,615.72	22,212.23	12,233.58	173.52	173.78	-111.62	-10,149.19	651.02	1,676.22	1,347.18	329.04	5.094	
21,600.00	11,617.36	22,325.93	12,235.29	175.12	175.59	-111.64	-10,262.88	650.72	1,675.10	1,342.80	332.30	5.041	
21,638.81	11,618.00	22,371.23	12,235.33	175.74	176.32	-111.62	-10,308.17	650.43	1,674.31	1,340.70	333.61	5.019 SF	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	27.00	0.00	0.00	90.00	0.00	20.00	33.60				
100.00	100.00	73.00	100.00	0.27	0.26	90.00	0.00	20.00	20.00	19.47	0.53	37.694	
200.00	200.00	173.00	200.00	0.63	0.62	90.00	0.00	20.00	20.00	18.75	1.25	16.032	
300.00	300.00	273.00	300.00	0.99	0.98	90.00	0.00	20.00	20.00	18.04	1.96	10.181	
400.00	400.00	373.00	400.00	1.34	1.34	90.00	0.00	20.00	20.00	17.32	2.68	7.459	
500.00	500.00	473.00	500.00	1.70	1.70	90.00	0.00	20.00	20.00	16.60	3.40	5.885	
600.00	600.00	573.00	600.00	2.06	2.05	90.00	0.00	20.00	20.00	15.88	4.12	4.860	
700.00	700.00	673.00	700.00	2.42	2.41	90.00	0.00	20.00	20.00	15.17	4.83	4.139	
800.00	800.00	773.00	800.00	2.78	2.77	90.00	0.00	20.00	20.00	14.45	5.55	3.604	
900.00	900.00	873.00	900.00	3.14	3.13	90.00	0.00	20.00	20.00	13.73	6.27	3.192	
1,000.00	1,000.00	973.00	1,000.00	3.50	3.49	90.00	0.00	20.00	20.00	13.02	6.98	2.864	
1,100.00	1,100.00	1,073.00	1,100.00	3.85	3.85	90.00	0.00	20.00	20.00	12.30	7.70	2.597	
1,200.00	1,200.00	1,173.00	1,200.00	4.21	4.20	90.00	0.00	20.00	20.00	11.58	8.42	2.376	
1,300.00	1,300.00	1,273.00	1,300.00	4.57	4.56	90.00	0.00	20.00	20.00	10.87	9.13	2.190	
1,400.00	1,400.00	1,373.00	1,400.00	4.93	4.92	90.00	0.00	20.00	20.00	10.15	9.85	2.030	
1,500.00	1,500.00	1,473.00	1,500.00	5.29	5.28	90.00	0.00	20.00	20.00	9.43	10.57	1.893	Collision Risk Procedures Req., CC, ES
1,600.00	1,599.98	1,572.60	1,599.59	5.64	5.64	-167.96	0.70	20.59	22.31	11.04	11.27	1.980	Collision Risk Procedures Req.
1,700.00	1,699.84	1,671.52	1,698.42	5.97	5.99	-175.79	3.93	23.30	30.62	18.67	11.95	2.562	
1,800.00	1,799.45	1,769.23	1,795.84	6.32	6.34	177.34	9.68	28.13	45.56	32.94	12.62	3.611	
1,900.00	1,898.76	1,865.24	1,891.25	6.67	6.68	172.78	17.81	34.95	66.74	53.47	13.26	5.031	
2,000.00	1,998.01	1,961.28	1,986.40	7.03	7.02	170.05	27.47	43.65	90.95	77.03	13.92	6.534	
2,100.00	2,097.27	2,057.93	2,082.20	7.39	7.36	169.57	35.39	53.72	115.66	101.07	14.59	7.925	
2,200.00	2,196.52	2,154.44	2,177.87	7.76	7.70	170.28	41.20	65.00	140.61	125.34	15.27	9.208	
2,300.00	2,295.78	2,250.93	2,273.48	8.14	8.04	171.55	45.13	77.38	165.83	149.88	15.95	10.399	
2,400.00	2,395.03	2,347.62	2,369.28	8.51	8.39	172.59	48.78	89.96	191.15	174.52	16.63	11.495	
2,500.00	2,494.29	2,444.31	2,465.08	8.89	8.73	173.39	52.43	102.53	216.52	199.20	17.31	12.505	
2,600.00	2,593.54	2,541.00	2,560.88	9.27	9.08	174.02	56.08	115.11	241.92	223.91	18.00	13.438	
2,700.00	2,692.80	2,637.71	2,656.70	9.66	9.43	166.21	59.73	127.69	267.22	248.53	18.69	14.296	
2,800.00	2,792.07	2,734.51	2,752.61	10.04	9.77	153.67	63.39	140.28	291.77	272.38	19.39	15.051	
2,900.00	2,891.33	2,831.33	2,848.54	10.43	10.12	154.78	67.04	152.87	316.12	296.04	20.08	15.741	
3,000.00	2,990.58	2,928.15	2,944.46	10.82	10.47	155.74	70.69	165.47	340.58	319.80	20.78	16.389	
3,100.00	3,089.84	3,024.97	3,040.39	11.21	10.82	156.57	74.35	178.06	365.11	343.63	21.48	16.997	
3,200.00	3,189.09	3,121.79	3,136.31	11.60	11.17	157.29	78.00	190.65	389.70	367.52	22.18	17.568	
3,300.00	3,288.35	3,218.61	3,232.24	11.99	11.52	157.93	81.66	203.25	414.34	391.46	22.88	18.106	
3,400.00	3,387.60	3,315.42	3,328.17	12.38	11.87	158.50	85.31	215.84	439.03	415.44	23.59	18.613	
3,500.00	3,486.86	3,412.24	3,424.09	12.78	12.22	159.00	88.97	228.43	463.76	439.46	24.29	19.091	
3,600.00	3,586.11	3,509.06	3,520.02	13.17	12.58	159.46	92.62	241.03	488.51	463.51	25.00	19.543	
3,700.00	3,685.37	3,605.88	3,615.95	13.57	12.93	159.87	96.27	253.62	513.29	487.59	25.70	19.970	
3,800.00	3,784.62	3,702.70	3,711.87	13.97	13.28	160.24	99.93	266.21	538.09	511.68	26.41	20.375	
3,900.00	3,883.88	3,799.52	3,807.80	14.36	13.63	160.58	103.58	278.80	562.92	535.80	27.12	20.759	
4,000.00	3,983.13	3,896.33	3,903.72	14.76	13.99	160.89	107.24	291.40	587.76	559.93	27.82	21.124	
4,100.00	4,082.39	3,993.15	3,999.65	15.16	14.34	161.18	110.89	303.99	612.61	584.08	28.53	21.470	
4,200.00	4,181.64	4,089.97	4,095.58	15.56	14.69	161.44	114.55	316.58	637.48	608.24	29.24	21.800	
4,300.00	4,280.90	4,186.79	4,191.50	15.96	15.05	161.69	118.20	329.18	662.36	632.41	29.95	22.114	
4,400.00	4,380.15	4,283.61	4,287.43	16.36	15.40	161.92	121.85	341.77	687.25	656.59	30.66	22.414	
4,500.00	4,479.40	4,397.36	4,400.28	16.76	15.82	162.17	125.85	355.53	711.26	679.75	31.51	22.573	
4,600.00	4,578.66	4,517.73	4,520.08	17.16	16.25	162.45	129.07	366.63	732.33	699.95	32.38	22.615	
4,700.00	4,677.91	4,639.60	4,641.69	17.56	16.69	162.74	131.26	374.17	750.32	717.08	33.23	22.577	
4,800.00	4,777.17	4,762.75	4,764.77	17.96	17.13	163.04	132.37	378.00	765.17	731.11	34.06	22.465	
4,900.00	4,876.42	4,874.40	4,876.42	18.36	17.52	163.33	132.51	378.49	777.25	742.43	34.82	22.323	
5,000.00	4,975.68	4,973.66	4,975.68	18.76	17.86	163.59	132.51	378.49	788.93	753.41	35.53	22.206	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,074.93	5,072.91	5,074.93	19.17	18.21	163.83	132.51	378.49	800.64	764.40	36.24	22.094	
5,200.00	5,174.19	5,172.17	5,174.19	19.57	18.56	164.07	132.51	378.49	812.35	775.41	36.95	21.987	
5,300.00	5,273.44	5,271.42	5,273.44	19.97	18.91	164.30	132.51	378.49	824.08	786.43	37.66	21.883	
5,400.00	5,372.70	5,370.68	5,372.70	20.37	19.25	164.53	132.51	378.49	835.83	797.46	38.37	21.784	
5,500.00	5,471.95	5,469.93	5,471.95	20.78	19.60	164.75	132.51	378.49	847.58	808.50	39.08	21.688	
5,600.00	5,571.21	5,569.19	5,571.21	21.18	19.95	164.96	132.51	378.49	859.35	819.56	39.79	21.596	
5,700.00	5,670.46	5,668.44	5,670.46	21.58	20.30	165.17	132.51	378.49	871.13	830.62	40.50	21.507	
5,800.00	5,769.72	5,767.70	5,769.72	21.99	20.65	165.37	132.51	378.49	882.92	841.70	41.22	21.421	
5,900.00	5,868.97	5,866.95	5,868.97	22.39	21.00	165.57	132.51	378.49	894.72	852.79	41.93	21.338	
6,000.00	5,968.23	5,966.21	5,968.23	22.79	21.35	165.76	132.51	378.49	906.53	863.89	42.64	21.258	
6,100.00	6,067.48	6,065.46	6,067.48	23.20	21.70	165.95	132.51	378.49	918.35	874.99	43.36	21.181	
6,200.00	6,166.74	6,164.72	6,166.74	23.60	22.05	166.13	132.51	378.49	930.18	886.11	44.07	21.106	
6,300.00	6,265.99	6,263.97	6,265.99	24.01	22.40	166.31	132.51	378.49	942.02	897.23	44.79	21.034	
6,400.00	6,365.25	6,363.23	6,365.25	24.41	22.75	166.48	132.51	378.49	953.87	908.37	45.50	20.964	
6,500.00	6,464.50	6,462.48	6,464.50	24.82	23.10	166.65	132.51	378.49	965.72	919.51	46.21	20.897	
6,600.00	6,563.76	6,561.74	6,563.76	25.22	23.45	166.82	132.51	378.49	977.59	930.66	46.93	20.831	
6,700.00	6,663.01	6,660.99	6,663.01	25.63	23.80	166.98	132.51	378.49	989.46	941.81	47.64	20.767	
6,800.00	6,762.27	6,760.25	6,762.27	26.03	24.15	167.13	132.51	378.49	1,001.34	952.98	48.36	20.706	
6,900.00	6,861.52	6,859.50	6,861.52	26.44	24.50	167.29	132.51	378.49	1,013.23	964.15	49.08	20.646	
7,000.00	6,960.78	6,958.76	6,960.78	26.84	24.86	167.44	132.51	378.49	1,025.12	975.33	49.79	20.588	
7,100.00	7,060.03	7,058.01	7,060.03	27.25	25.21	167.58	132.51	378.49	1,037.02	986.51	50.51	20.532	
7,200.00	7,159.29	7,157.27	7,159.29	27.65	25.56	167.73	132.51	378.49	1,048.93	997.70	51.22	20.477	
7,300.00	7,258.54	7,256.52	7,258.54	28.06	25.91	167.87	132.51	378.49	1,060.84	1,008.90	51.94	20.424	
7,400.00	7,357.80	7,355.78	7,357.80	28.46	26.26	168.00	132.51	378.49	1,072.76	1,020.10	52.66	20.373	
7,500.00	7,457.05	7,455.03	7,457.05	28.87	26.61	168.14	132.51	378.49	1,084.68	1,031.31	53.37	20.322	
7,600.00	7,556.31	7,554.29	7,556.31	29.27	26.97	168.27	132.51	378.49	1,096.61	1,042.52	54.09	20.274	
7,700.00	7,655.56	7,653.54	7,655.56	29.68	27.32	168.40	132.51	378.49	1,108.55	1,053.74	54.81	20.226	
7,800.00	7,754.82	7,752.80	7,754.82	30.08	27.67	168.52	132.51	378.49	1,120.49	1,064.97	55.53	20.180	
7,900.00	7,854.07	7,852.05	7,854.07	30.49	28.02	168.64	132.51	378.49	1,132.44	1,076.20	56.24	20.135	
8,000.00	7,953.33	7,951.31	7,953.33	30.90	28.38	168.76	132.51	378.49	1,144.39	1,087.43	56.96	20.091	
8,100.00	8,052.58	8,050.56	8,052.58	31.30	28.73	168.88	132.51	378.49	1,156.35	1,098.67	57.68	20.048	
8,200.00	8,151.84	8,149.82	8,151.84	31.71	29.08	169.00	132.51	378.49	1,168.31	1,109.91	58.40	20.007	
8,300.00	8,251.09	8,249.07	8,251.09	32.11	29.43	169.11	132.51	378.49	1,180.28	1,121.16	59.11	19.966	
8,400.00	8,350.35	8,348.33	8,350.35	32.52	29.79	169.22	132.51	378.49	1,192.25	1,132.41	59.83	19.926	
8,500.00	8,449.60	8,447.58	8,449.60	32.93	30.14	169.33	132.51	378.49	1,204.22	1,143.67	60.55	19.888	
8,600.00	8,548.86	8,546.84	8,548.86	33.33	30.49	169.43	132.51	378.49	1,216.20	1,154.93	61.27	19.850	
8,700.00	8,648.11	8,646.09	8,648.11	33.74	30.85	169.54	132.51	378.49	1,228.18	1,166.20	61.99	19.813	
8,800.00	8,747.37	8,745.35	8,747.37	34.15	31.20	169.64	132.51	378.49	1,240.17	1,177.46	62.71	19.777	
8,900.00	8,846.62	8,844.60	8,846.62	34.55	31.55	169.74	132.51	378.49	1,252.16	1,188.74	63.43	19.742	
9,000.00	8,945.88	8,943.86	8,945.88	34.96	31.90	169.84	132.51	378.49	1,264.16	1,200.01	64.14	19.708	
9,100.00	9,045.13	9,043.11	9,045.13	35.36	32.26	169.94	132.51	378.49	1,276.15	1,211.29	64.86	19.675	
9,200.00	9,144.39	9,142.37	9,144.39	35.77	32.61	170.03	132.51	378.49	1,288.16	1,222.57	65.58	19.642	
9,300.00	9,243.64	9,241.62	9,243.64	36.18	32.96	170.12	132.51	378.49	1,300.16	1,233.86	66.30	19.610	
9,400.00	9,342.90	9,340.87	9,342.90	36.58	33.32	170.22	132.51	378.49	1,312.17	1,245.15	67.02	19.579	
9,500.00	9,442.15	9,440.13	9,442.15	36.99	33.67	170.30	132.51	378.49	1,324.18	1,256.44	67.74	19.548	
9,600.00	9,541.40	9,539.38	9,541.40	37.40	34.02	170.39	132.51	378.49	1,336.20	1,267.74	68.46	19.518	
9,700.00	9,640.66	9,638.64	9,640.66	37.80	34.38	170.48	132.51	378.49	1,348.21	1,279.03	69.18	19.489	
9,800.00	9,739.91	9,737.89	9,739.91	38.21	34.73	170.56	132.51	378.49	1,360.23	1,290.33	69.90	19.460	
9,900.00	9,839.36	9,837.34	9,839.36	38.61	35.09	170.67	132.51	378.49	1,370.58	1,299.96	70.62	19.408	
10,000.00	9,939.11	9,937.09	9,939.11	38.98	35.44	170.74	132.51	378.49	1,377.50	1,306.17	71.33	19.311	
10,100.00	10,039.04	10,037.02	10,039.04	39.33	35.80	170.77	132.51	378.49	1,380.98	1,308.93	72.04	19.169	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State 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
10,200.00	10,139.04	10,137.02	10,139.04	39.65	36.15	87.33	132.51	378.49	1,381.42	1,308.68	72.74	18.991	
10,300.00	10,239.04	10,237.02	10,239.04	39.97	36.51	87.33	132.51	378.49	1,381.42	1,307.99	73.43	18.812	
10,400.00	10,339.04	10,337.02	10,339.04	40.28	36.87	87.33	132.51	378.49	1,381.42	1,307.30	74.13	18.636	
10,500.00	10,439.04	10,437.02	10,439.04	40.60	37.22	87.33	132.51	378.49	1,381.42	1,306.60	74.82	18.463	
10,600.00	10,539.04	10,537.02	10,539.04	40.92	37.58	87.33	132.51	378.49	1,381.42	1,305.91	75.52	18.293	
10,700.00	10,639.04	10,637.02	10,639.04	41.24	37.94	87.33	132.51	378.49	1,381.42	1,305.21	76.21	18.126	
10,800.00	10,739.04	10,737.02	10,739.04	41.56	38.29	87.33	132.51	378.49	1,381.42	1,304.51	76.91	17.962	
10,900.00	10,839.04	10,837.02	10,839.04	41.89	38.65	87.33	132.51	378.49	1,381.42	1,303.82	77.60	17.801	
11,000.00	10,938.95	10,961.86	10,963.59	42.20	39.07	-92.09	126.55	378.02	1,381.00	1,302.62	78.37	17.621	
11,100.00	11,037.16	11,102.50	11,098.89	42.50	39.49	-91.87	89.59	375.11	1,378.38	1,299.28	79.11	17.424	
11,200.00	11,130.73	11,237.98	11,216.97	42.77	39.84	-91.51	24.01	369.95	1,373.63	1,293.88	79.75	17.224	
11,300.00	11,216.80	11,366.45	11,311.75	43.01	40.08	-91.07	-62.04	363.18	1,367.14	1,286.81	80.33	17.019	
11,400.00	11,292.78	11,487.18	11,381.24	43.23	40.25	-90.60	-160.19	355.45	1,359.39	1,278.52	80.87	16.809	
11,500.00	11,356.34	11,600.33	11,426.33	43.41	40.40	-90.14	-263.46	347.33	1,350.86	1,269.48	81.38	16.599	
11,600.00	11,405.56	11,706.58	11,449.39	43.59	40.51	-89.72	-366.70	339.20	1,341.97	1,260.13	81.84	16.398	
11,700.00	11,438.94	11,794.34	11,454.29	43.79	40.56	-89.50	-454.00	332.44	1,333.24	1,251.02	82.21	16.216	
11,800.00	11,455.47	11,861.63	11,455.39	44.02	40.61	-89.74	-521.17	328.53	1,326.52	1,243.98	82.54	16.071	
11,900.00	11,458.23	11,929.94	11,456.51	44.31	40.66	-89.90	-589.42	326.17	1,322.15	1,239.27	82.89	15.951	
12,000.00	11,459.87	12,000.00	11,457.66	44.67	40.71	-89.90	-659.47	325.45	1,320.17	1,236.89	83.29	15.851	
12,046.87	11,460.64	12,034.83	11,458.23	44.85	40.74	-89.90	-694.29	325.69	1,320.04	1,236.54	83.51	15.808	
12,100.00	11,461.51	12,087.96	11,459.09	45.08	40.80	-89.90	-747.41	326.18	1,320.04	1,236.24	83.80	15.752	
12,200.00	11,463.15	12,187.96	11,460.73	45.56	40.90	-89.89	-847.39	327.11	1,320.04	1,235.62	84.42	15.636	
12,300.00	11,464.79	12,287.96	11,462.36	46.10	41.03	-89.89	-947.38	328.03	1,320.04	1,234.92	85.12	15.508	
12,400.00	11,466.43	12,387.96	11,464.00	46.69	41.16	-89.89	-1,047.36	328.95	1,320.04	1,234.16	85.88	15.371	
12,500.00	11,468.07	12,487.96	11,465.63	47.33	41.31	-89.89	-1,147.34	329.87	1,320.04	1,233.33	86.71	15.224	
12,600.00	11,469.72	12,587.96	11,467.27	48.02	41.48	-89.89	-1,247.32	330.79	1,320.04	1,232.44	87.60	15.070	
12,700.00	11,471.36	12,687.96	11,468.90	48.77	41.65	-89.89	-1,347.31	331.71	1,320.04	1,231.49	88.55	14.908	
12,800.00	11,473.00	12,787.96	11,470.54	49.55	41.84	-89.89	-1,447.29	332.63	1,320.04	1,230.48	89.55	14.740	
12,900.00	11,474.64	12,887.96	11,472.17	50.38	42.04	-89.89	-1,547.27	333.56	1,320.04	1,229.42	90.62	14.567	
13,000.00	11,476.28	12,987.96	11,473.80	51.25	42.26	-89.89	-1,647.25	334.48	1,320.04	1,228.30	91.73	14.390	
13,100.00	11,477.92	13,087.96	11,475.44	52.16	42.49	-89.89	-1,747.24	335.40	1,320.04	1,227.14	92.90	14.209	
13,200.00	11,479.56	13,187.96	11,477.07	53.10	42.73	-89.89	-1,847.22	336.32	1,320.04	1,225.92	94.12	14.026	
13,300.00	11,481.20	13,287.96	11,478.71	54.08	42.98	-89.89	-1,947.20	337.24	1,320.04	1,224.66	95.38	13.840	
13,400.00	11,482.84	13,387.96	11,480.34	55.09	43.24	-89.89	-2,047.18	338.16	1,320.04	1,223.35	96.68	13.653	
13,500.00	11,484.48	13,487.96	11,481.98	56.14	43.52	-89.89	-2,147.16	339.08	1,320.04	1,222.00	98.03	13.465	
13,600.00	11,486.12	13,587.96	11,483.61	57.21	43.81	-89.89	-2,247.15	340.01	1,320.04	1,220.62	99.42	13.277	
13,700.00	11,487.76	13,687.96	11,485.24	58.30	44.11	-89.89	-2,347.13	340.93	1,320.04	1,219.19	100.85	13.090	
13,800.00	11,489.40	13,787.96	11,486.88	59.43	44.42	-89.89	-2,447.11	341.85	1,320.03	1,217.73	102.31	12.903	
13,900.00	11,491.04	13,887.96	11,488.51	60.57	44.74	-89.89	-2,547.09	342.77	1,320.03	1,216.23	103.81	12.716	
14,000.00	11,492.68	13,987.96	11,490.15	61.75	45.07	-89.89	-2,647.08	343.69	1,320.03	1,214.70	105.34	12.532	
14,100.00	11,494.32	14,087.96	11,491.78	62.94	45.41	-89.89	-2,747.06	344.61	1,320.03	1,213.14	106.90	12.349	
14,200.00	11,495.96	14,187.96	11,493.42	64.15	45.77	-89.89	-2,847.04	345.53	1,320.03	1,211.54	108.49	12.167	
14,300.00	11,497.60	14,287.96	11,495.05	65.38	46.13	-89.89	-2,947.02	346.46	1,320.03	1,209.92	110.11	11.988	
14,400.00	11,499.24	14,387.96	11,496.69	66.63	46.50	-89.89	-3,047.01	347.38	1,320.03	1,208.28	111.76	11.812	
14,500.00	11,500.89	14,487.96	11,498.32	67.90	46.88	-89.89	-3,146.99	348.30	1,320.03	1,206.60	113.43	11.637	
14,600.00	11,502.53	14,587.96	11,499.95	69.18	47.27	-89.89	-3,246.97	349.22	1,320.03	1,204.90	115.13	11.466	
14,700.00	11,504.17	14,687.96	11,501.59	70.48	47.67	-89.89	-3,346.95	350.14	1,320.03	1,203.18	116.85	11.297	
14,800.00	11,505.81	14,787.96	11,503.22	71.79	48.08	-89.89	-3,446.94	351.06	1,320.03	1,201.43	118.60	11.130	
14,900.00	11,507.45	14,887.96	11,504.86	73.12	48.50	-89.89	-3,546.92	351.98	1,320.03	1,199.67	120.37	10.967	
15,000.00	11,509.09	14,987.96	11,506.49	74.46	48.93	-89.89	-3,646.90	352.91	1,320.03	1,197.88	122.15	10.806	
15,100.00	11,510.73	15,087.96	11,508.13	75.81	49.36	-89.89	-3,746.88	353.83	1,320.03	1,196.07	123.96	10.649	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 552H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,200.00	11,512.37	15,187.96	11,509.76	77.18	49.80	-89.89	-3,846.87	354.75	1,320.03	1,194.24	125.79	10.494	
15,300.00	11,514.01	15,287.96	11,511.39	78.55	50.25	-89.89	-3,946.85	355.67	1,320.03	1,192.40	127.63	10.342	
15,400.00	11,515.65	15,387.96	11,513.03	79.94	50.71	-89.89	-4,046.83	356.59	1,320.03	1,190.53	129.50	10.194	
15,500.00	11,517.29	15,487.96	11,514.66	81.34	51.17	-89.89	-4,146.81	357.51	1,320.03	1,188.65	131.38	10.048	
15,600.00	11,518.93	15,587.96	11,516.30	82.74	51.65	-89.89	-4,246.80	358.43	1,320.03	1,186.76	133.27	9.905	
15,700.00	11,520.57	15,687.96	11,517.93	84.15	52.12	-89.89	-4,346.78	359.35	1,320.03	1,184.85	135.18	9.765	
15,800.00	11,522.21	15,787.96	11,519.57	85.58	52.61	-89.89	-4,446.76	360.28	1,320.03	1,182.92	137.11	9.628	
15,900.00	11,523.85	15,887.96	11,521.20	87.01	53.10	-89.88	-4,546.74	361.20	1,320.03	1,180.98	139.05	9.493	
16,000.00	11,525.49	15,987.96	11,522.83	88.45	53.60	-89.88	-4,646.72	362.12	1,320.03	1,179.02	141.00	9.362	
16,100.00	11,527.13	16,087.96	11,524.47	89.89	54.11	-89.88	-4,746.71	363.04	1,320.03	1,177.06	142.97	9.233	
16,200.00	11,528.77	16,187.96	11,526.10	91.34	54.62	-89.88	-4,846.69	363.96	1,320.03	1,175.08	144.95	9.107	
16,300.00	11,530.42	16,287.96	11,527.74	92.80	55.13	-89.88	-4,946.67	364.88	1,320.03	1,173.09	146.94	8.983	
16,400.00	11,532.06	16,387.96	11,529.37	94.27	55.66	-89.88	-5,046.65	365.80	1,320.03	1,171.08	148.94	8.863	
16,500.00	11,533.70	16,487.96	11,531.01	95.74	56.18	-89.88	-5,146.64	366.73	1,320.02	1,169.07	150.96	8.744	
16,600.00	11,535.34	16,587.96	11,532.64	97.22	56.72	-89.88	-5,246.62	367.65	1,320.02	1,167.04	152.98	8.629	
16,700.00	11,536.98	16,687.96	11,534.28	98.70	57.26	-89.88	-5,346.60	368.57	1,320.02	1,165.00	155.02	8.515	
16,800.00	11,538.62	16,787.96	11,535.91	100.19	57.80	-89.88	-5,446.58	369.49	1,320.02	1,162.96	157.07	8.404	
16,900.00	11,540.26	16,887.96	11,537.54	101.68	58.35	-89.88	-5,546.57	370.41	1,320.02	1,160.90	159.12	8.296	
17,000.00	11,541.90	16,987.96	11,539.18	103.18	58.90	-89.88	-5,646.55	371.33	1,320.02	1,158.84	161.19	8.189	
17,100.00	11,543.54	17,087.96	11,540.81	104.68	59.46	-89.88	-5,746.53	372.25	1,320.02	1,156.76	163.26	8.085	
17,200.00	11,545.18	17,187.96	11,542.45	106.19	60.02	-89.88	-5,846.51	373.18	1,320.02	1,154.68	165.34	7.984	
17,300.00	11,546.82	17,287.96	11,544.08	107.70	60.59	-89.88	-5,946.50	374.10	1,320.02	1,152.59	167.43	7.884	
17,400.00	11,548.46	17,387.96	11,545.72	109.22	61.16	-89.88	-6,046.48	375.02	1,320.02	1,150.49	169.53	7.786	
17,500.00	11,550.10	17,487.96	11,547.35	110.74	61.74	-89.88	-6,146.46	375.94	1,320.02	1,148.38	171.64	7.691	
17,600.00	11,551.74	17,587.96	11,548.98	112.26	62.32	-89.88	-6,246.44	376.86	1,320.02	1,146.27	173.75	7.597	
17,700.00	11,553.38	17,687.96	11,550.62	113.79	62.90	-89.88	-6,346.43	377.78	1,320.02	1,144.15	175.87	7.505	
17,800.00	11,555.02	17,787.96	11,552.25	115.32	63.49	-89.88	-6,446.41	378.70	1,320.02	1,142.02	178.00	7.416	
17,900.00	11,556.66	17,887.96	11,553.89	116.85	64.08	-89.88	-6,546.39	379.63	1,320.02	1,139.88	180.14	7.328	
18,000.00	11,558.30	17,987.96	11,555.52	118.39	64.68	-89.88	-6,646.37	380.55	1,320.02	1,137.74	182.28	7.242	
18,100.00	11,559.94	18,087.96	11,557.16	119.93	65.27	-89.88	-6,746.36	381.47	1,320.02	1,135.59	184.43	7.157	
18,200.00	11,561.59	18,187.96	11,558.79	121.47	65.88	-89.88	-6,846.34	382.39	1,320.02	1,133.43	186.58	7.075	
18,300.00	11,563.23	18,287.96	11,560.43	123.02	66.48	-89.88	-6,946.32	383.31	1,320.02	1,131.27	188.74	6.994	
18,400.00	11,564.87	18,387.96	11,562.06	124.57	67.09	-89.88	-7,046.30	384.23	1,320.02	1,129.11	190.91	6.914	
18,500.00	11,566.51	18,487.96	11,563.69	126.12	67.70	-89.88	-7,146.28	385.15	1,320.02	1,126.93	193.08	6.837	
18,600.00	11,568.15	18,587.96	11,565.33	127.67	68.32	-89.88	-7,246.27	386.08	1,320.02	1,124.76	195.26	6.760	
18,700.00	11,569.79	18,687.96	11,566.96	129.23	68.94	-89.88	-7,346.25	387.00	1,320.02	1,122.57	197.44	6.686	
18,800.00	11,571.43	18,787.96	11,568.60	130.79	69.56	-89.88	-7,446.23	387.92	1,320.02	1,120.39	199.63	6.612	
18,900.00	11,573.07	18,887.96	11,570.23	132.35	70.18	-89.88	-7,546.21	388.84	1,320.02	1,118.19	201.82	6.540	
19,000.00	11,574.71	18,987.96	11,571.87	133.91	70.81	-89.88	-7,646.20	389.76	1,320.02	1,115.99	204.02	6.470	
19,100.00	11,576.35	19,087.96	11,573.50	135.48	71.44	-89.88	-7,746.18	390.68	1,320.01	1,113.79	206.22	6.401	
19,200.00	11,577.99	19,187.96	11,575.13	137.04	72.07	-89.88	-7,846.16	391.60	1,320.01	1,111.58	208.43	6.333	
19,300.00	11,579.63	19,287.96	11,576.77	138.61	72.70	-89.88	-7,946.14	392.53	1,320.01	1,109.37	210.64	6.267	
19,400.00	11,581.27	19,387.96	11,578.40	140.18	73.34	-89.88	-8,046.13	393.45	1,320.01	1,107.16	212.86	6.201	
19,500.00	11,582.91	19,487.96	11,580.04	141.76	73.98	-89.88	-8,146.11	394.37	1,320.01	1,104.94	215.08	6.137	
19,600.00	11,584.55	19,587.96	11,581.67	143.33	74.62	-89.87	-8,246.09	395.29	1,320.01	1,102.71	217.30	6.075	
19,700.00	11,586.19	19,687.96	11,583.31	144.91	75.26	-89.87	-8,346.07	396.21	1,320.01	1,100.49	219.53	6.013	
19,800.00	11,587.83	19,787.96	11,584.94	146.48	75.91	-89.87	-8,446.06	397.13	1,320.01	1,098.25	221.76	5.953	
19,900.00	11,589.47	19,887.96	11,586.57	148.06	76.56	-89.87	-8,546.04	398.05	1,320.01	1,096.02	223.99	5.893	
20,000.00	11,591.11	19,987.96	11,588.21	149.65	77.21	-89.87	-8,646.02	398.98	1,320.01	1,093.78	226.23	5.835	
20,100.00	11,592.76	20,087.96	11,589.84	151.23	77.86	-89.87	-8,746.00	399.90	1,320.01	1,091.54	228.47	5.778	
20,200.00	11,594.40	20,187.96	11,591.48	152.81	78.52	-89.87	-8,845.99	400.82	1,320.01	1,089.29	230.72	5.721	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 6H (Well D) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	25.00	0.00	0.00	102.48	-19.93	90.01	95.52				
100.00	100.00	75.18	100.18	0.27	0.12	102.47	-19.90	89.94	92.12	91.73	0.38	239.420	
200.00	200.00	175.43	200.43	0.63	0.28	102.43	-19.76	89.64	91.79	90.89	0.91	101.233	
300.00	300.00	276.33	301.33	0.99	0.64	102.34	-19.43	88.77	90.88	89.25	1.63	55.890	
400.00	400.00	377.46	402.43	1.34	1.00	102.72	-19.54	86.58	88.79	86.45	2.35	37.841	
500.00	500.00	478.36	503.27	1.70	1.37	103.48	-19.90	83.06	85.47	82.41	3.07	27.871	
600.00	600.00	577.68	602.52	2.06	1.73	104.43	-20.42	79.35	81.98	78.20	3.78	21.680	
700.00	700.00	676.62	701.41	2.42	2.08	105.55	-21.34	76.72	79.65	75.15	4.49	17.723	
800.00	800.00	776.39	801.16	2.78	2.44	106.68	-22.40	74.75	78.04	72.84	5.21	14.981	
900.00	900.00	876.36	901.11	3.14	2.80	107.58	-23.13	73.01	76.59	70.67	5.93	12.924	
1,000.00	1,000.00	976.27	1,001.01	3.50	3.16	108.38	-23.69	71.31	75.15	68.50	6.64	11.311	
1,100.00	1,100.00	1,076.24	1,100.97	3.85	3.52	109.07	-24.14	69.84	73.90	66.54	7.36	10.039	
1,200.00	1,200.00	1,176.85	1,201.56	4.21	3.88	109.68	-24.36	68.11	72.35	64.27	8.08	8.954	
1,300.00	1,300.00	1,279.39	1,304.03	4.57	4.25	110.27	-23.81	64.49	68.86	60.06	8.80	7.825	
1,400.00	1,400.00	1,382.20	1,406.44	4.93	4.63	111.38	-21.83	55.74	60.21	50.70	9.50	6.335	
1,500.00	1,500.00	1,482.49	1,506.00	5.29	5.01	113.75	-19.31	43.90	48.33	38.12	10.21	4.733	
1,600.00	1,599.98	1,582.12	1,604.78	5.64	5.39	-139.51	-16.31	31.36	36.97	26.05	10.91	3.388	
1,700.00	1,699.84	1,681.74	1,703.49	5.97	5.77	-140.67	-13.27	18.30	27.78	16.17	11.61	2.394	
1,800.00	1,799.45	1,781.55	1,802.39	6.32	6.17	-148.24	-10.29	5.14	21.44	9.14	12.30	1.744	Collision Risk Procedures Req.
1,900.00	1,898.76	1,881.45	1,901.31	6.67	6.56	-163.95	-7.48	-8.56	18.14	5.15	12.99	1.397	Collision Risk Procedures Req.
2,000.00	1,998.01	1,981.27	2,000.10	7.03	6.96	176.04	-4.86	-22.60	16.72	2.98	13.74	1.217	Collision Risk Procedures Req.
2,013.09	2,011.00	1,994.33	2,013.03	7.08	7.02	173.31	-4.53	-24.43	16.70	2.86	13.84	1.206	Collision Risk Procedures Req., CC, ES
2,100.00	2,097.27	2,080.99	2,098.84	7.39	7.37	156.12	-2.31	-36.33	17.73	3.16	14.57	1.217	Collision Risk Procedures Req.
2,200.00	2,196.52	2,181.01	2,197.86	7.76	7.77	140.02	0.06	-50.21	20.33	4.92	15.41	1.319	Collision Risk Procedures Req.
2,300.00	2,295.78	2,280.94	2,296.65	8.14	8.19	126.29	2.11	-65.10	23.44	7.18	16.26	1.442	Collision Risk Procedures Req.
2,400.00	2,395.03	2,380.66	2,395.24	8.51	8.60	116.24	4.20	-79.93	27.62	10.54	17.08	1.617	Collision Risk Procedures Req.
2,500.00	2,494.29	2,480.50	2,494.10	8.89	9.01	110.79	6.21	-93.77	32.42	14.53	17.88	1.813	Collision Risk Procedures Req.
2,600.00	2,593.54	2,580.23	2,592.88	9.27	9.42	107.15	8.39	-107.34	37.62	18.94	18.67	2.015	
2,700.00	2,692.80	2,680.07	2,691.68	9.66	9.83	95.62	10.73	-121.41	42.66	23.19	19.47	2.191	
2,800.00	2,792.07	2,780.10	2,790.79	10.04	10.25	80.63	13.10	-134.84	44.81	24.55	20.26	2.211	
2,900.00	2,891.33	2,880.25	2,889.97	10.43	10.66	78.64	15.07	-148.56	45.50	24.43	21.06	2.160	
3,000.00	2,990.58	2,980.26	2,988.87	10.82	11.08	75.36	16.78	-163.32	46.12	24.26	21.86	2.110	
3,100.00	3,089.84	3,080.22	3,087.76	11.21	11.50	72.49	18.44	-177.80	46.78	24.13	22.65	2.066	
3,200.00	3,189.09	3,180.09	3,186.60	11.60	11.92	70.10	20.31	-192.00	47.70	24.27	23.43	2.036	
3,300.00	3,288.35	3,280.44	3,285.94	11.99	12.34	68.00	22.16	-206.07	48.63	24.41	24.22	2.008	
3,400.00	3,387.60	3,381.16	3,385.63	12.38	12.76	65.20	22.58	-220.42	48.32	23.32	25.00	1.933	Collision Risk Procedures Req.
3,500.00	3,486.86	3,481.49	3,484.98	12.78	13.18	62.26	21.76	-234.34	46.85	21.08	25.77	1.818	Collision Risk Procedures Req.
3,600.00	3,586.11	3,580.93	3,583.37	13.17	13.60	58.41	20.80	-248.74	45.63	19.12	26.50	1.722	Collision Risk Procedures Req.
3,618.62	3,604.59	3,599.40	3,601.59	13.25	13.67	57.30	20.64	-251.75	45.59	18.96	26.63	1.712	Collision Risk Procedures Req.
3,700.00	3,685.37	3,680.25	3,681.36	13.57	14.02	52.76	20.52	-264.96	46.15	18.97	27.18	1.698	Collision Risk Procedures Req.
3,800.00	3,784.62	3,779.88	3,779.67	13.97	14.46	48.25	21.40	-281.07	47.96	20.10	27.86	1.721	Collision Risk Procedures Req.
3,900.00	3,883.88	3,879.93	3,878.49	14.36	14.89	45.09	22.94	-296.64	50.19	21.62	28.57	1.757	Collision Risk Procedures Req.
4,000.00	3,983.13	3,980.07	3,977.56	14.76	15.31	43.47	24.96	-311.13	52.18	22.87	29.31	1.781	Collision Risk Procedures Req.
4,100.00	4,082.39	4,080.06	4,076.55	15.16	15.73	42.63	27.28	-325.02	54.05	23.99	30.06	1.798	Collision Risk Procedures Req.
4,200.00	4,181.64	4,180.12	4,175.66	15.56	16.15	42.16	29.64	-338.57	55.74	24.92	30.82	1.809	Collision Risk Procedures Req.
4,300.00	4,280.90	4,279.58	4,274.14	15.96	16.57	41.88	32.44	-352.21	57.88	26.31	31.57	1.833	Collision Risk Procedures Req.
4,400.00	4,380.15	4,379.02	4,372.49	16.36	16.99	41.73	36.05	-366.42	61.03	28.70	32.33	1.888	Collision Risk Procedures Req.
4,500.00	4,479.40	4,479.07	4,471.45	16.76	17.41	42.15	40.39	-380.50	64.56	31.44	33.12	1.949	Collision Risk Procedures Req.
4,600.00	4,578.66	4,579.51	4,570.82	17.16	17.84	41.93	43.77	-394.74	67.43	33.53	33.90	1.989	Collision Risk Procedures Req.
4,700.00	4,677.91	4,679.44	4,669.64	17.56	18.26	40.94	46.23	-409.37	69.94	35.30	34.64	2.019	
4,800.00	4,777.17	4,779.18	4,768.25	17.96	18.69	40.17	49.04	-424.05	72.79	37.41	35.38	2.057	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 6H (Well D) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,879.01	4,866.95	18.36	19.11	39.62	52.15	-438.72	75.84	39.71	36.13	2.099	
5,000.00	4,975.68	4,979.12	4,965.95	18.76	19.54	39.42	55.58	-453.17	78.94	42.05	36.90	2.140	
5,100.00	5,074.93	5,079.52	5,065.30	19.17	19.97	39.35	58.85	-467.25	81.63	43.95	37.68	2.167	
5,200.00	5,174.19	5,179.55	5,164.34	19.57	20.39	39.31	61.84	-480.97	83.92	45.47	38.45	2.183	
5,300.00	5,273.44	5,279.46	5,263.22	19.97	20.81	38.91	64.50	-495.13	86.29	47.08	39.20	2.201	
5,400.00	5,372.70	5,379.90	5,362.61	20.37	21.24	38.36	66.85	-509.41	88.46	48.50	39.96	2.214	
5,500.00	5,471.95	5,480.98	5,462.72	20.78	21.66	37.77	68.51	-523.19	89.75	49.03	40.72	2.204	
5,600.00	5,571.21	5,581.28	5,562.08	21.18	22.08	36.62	68.94	-536.92	90.23	48.79	41.44	2.177	
5,700.00	5,670.46	5,681.43	5,661.27	21.58	22.50	35.20	68.89	-550.76	90.54	48.40	42.14	2.149	
5,800.00	5,769.72	5,782.02	5,760.97	21.99	22.92	33.94	68.64	-564.09	90.33	47.48	42.85	2.108	
5,873.08	5,842.26	5,854.73	5,833.06	22.28	23.22	33.16	68.62	-573.55	90.17	46.81	43.36	2.080	
5,900.00	5,868.97	5,881.35	5,859.45	22.39	23.33	32.92	68.71	-577.05	90.21	46.66	43.55	2.071	
6,000.00	5,968.23	5,980.61	5,957.79	22.79	23.75	32.22	69.83	-590.49	91.17	46.90	44.27	2.059	
6,100.00	6,067.48	6,080.66	6,056.93	23.20	24.16	31.55	70.89	-603.88	91.98	46.98	45.00	2.044	
6,200.00	6,166.74	6,179.56	6,154.76	23.60	24.59	30.59	72.20	-618.32	93.93	48.24	45.69	2.056	
6,300.00	6,265.99	6,279.74	6,253.84	24.01	25.01	29.68	73.66	-633.04	96.07	49.66	46.40	2.070	
6,400.00	6,365.25	6,379.68	6,352.70	24.41	25.44	28.83	75.12	-647.65	98.16	51.05	47.12	2.083	
6,500.00	6,464.50	6,479.95	6,451.87	24.82	25.87	27.89	76.36	-662.40	100.23	52.40	47.83	2.096	
6,600.00	6,563.76	6,580.26	6,551.13	25.22	26.30	26.92	77.25	-676.84	101.87	53.33	48.54	2.099	
6,700.00	6,663.01	6,679.72	6,649.60	25.63	26.72	26.37	78.72	-690.80	103.55	54.30	49.26	2.102	
6,800.00	6,762.27	6,780.10	6,748.99	26.03	27.14	26.52	81.47	-704.53	105.62	55.59	50.03	2.111	
6,900.00	6,861.52	6,879.59	6,847.58	26.44	27.56	26.88	84.35	-717.63	107.35	56.54	50.80	2.113	
7,000.00	6,960.78	6,979.61	6,946.60	26.84	27.98	27.08	87.28	-731.37	109.57	58.00	51.57	2.125	
7,100.00	7,060.03	7,080.65	7,046.73	27.25	28.40	27.32	90.02	-744.73	111.25	58.88	52.36	2.124	
7,200.00	7,159.29	7,178.10	7,143.22	27.65	28.81	27.52	92.85	-758.02	113.38	60.29	53.09	2.136	
7,300.00	7,258.54	7,278.97	7,242.96	28.06	29.24	27.54	96.02	-772.77	116.47	62.60	53.87	2.162	
7,400.00	7,357.80	7,380.68	7,343.71	28.46	29.67	27.75	98.84	-786.35	118.29	63.62	54.67	2.164	
7,500.00	7,457.05	7,480.77	7,442.99	28.87	30.08	28.10	101.35	-798.84	119.24	63.78	55.45	2.150	
7,600.00	7,556.31	7,578.77	7,540.02	29.27	30.49	28.05	103.75	-812.34	121.22	65.04	56.18	2.158	
7,700.00	7,655.56	7,678.41	7,638.52	29.68	30.92	27.74	106.21	-827.14	124.13	67.21	56.91	2.181	
7,800.00	7,754.82	7,778.77	7,737.75	30.08	31.35	27.46	108.68	-841.95	126.95	69.28	57.66	2.202	
7,900.00	7,854.07	7,879.20	7,837.12	30.49	31.78	27.30	111.17	-856.34	129.41	71.00	58.42	2.215	
8,000.00	7,953.33	7,979.28	7,936.16	30.90	32.21	27.10	113.39	-870.50	131.59	72.43	59.17	2.224	
8,100.00	8,052.58	8,079.44	8,035.25	31.30	32.64	26.66	115.17	-885.07	133.86	73.97	59.89	2.235	
8,200.00	8,151.84	8,179.99	8,134.78	31.71	33.06	26.31	116.86	-899.20	135.67	75.04	60.64	2.237	
8,300.00	8,251.09	8,279.20	8,232.98	32.11	33.48	25.87	118.32	-913.24	137.46	76.11	61.35	2.241	
8,400.00	8,350.35	8,379.20	8,331.83	32.52	33.91	25.15	119.53	-928.32	139.90	77.85	62.05	2.255	
8,500.00	8,449.60	8,480.68	8,432.26	32.93	34.35	24.56	120.62	-942.86	141.66	78.87	62.78	2.256	
8,600.00	8,548.86	8,579.88	8,530.52	33.33	34.76	24.15	121.75	-956.41	142.88	79.38	63.50	2.250	
8,700.00	8,648.11	8,681.02	8,630.66	33.74	35.19	23.70	122.96	-970.55	144.42	80.18	64.23	2.248	
8,800.00	8,747.37	8,780.21	8,728.94	34.15	35.61	23.35	124.12	-983.92	145.50	80.55	64.95	2.240	
8,900.00	8,846.62	8,880.43	8,828.18	34.55	36.03	22.93	125.32	-997.83	146.96	81.29	65.68	2.238	
9,000.00	8,945.88	8,979.31	8,926.06	34.96	36.45	22.50	126.54	-1,011.80	148.67	82.28	66.38	2.240	
9,100.00	9,045.13	9,079.75	9,025.44	35.36	36.88	21.98	127.66	-1,026.29	150.59	83.49	67.10	2.244	
9,200.00	9,144.39	9,179.71	9,124.35	35.77	37.30	21.38	128.51	-1,040.72	152.40	84.60	67.81	2.248	
9,300.00	9,243.64	9,279.84	9,223.43	36.18	37.73	20.76	129.26	-1,055.14	154.16	85.65	68.51	2.250	
9,400.00	9,342.90	9,379.78	9,322.35	36.58	38.15	20.32	130.38	-1,069.34	155.93	86.70	69.23	2.252	
9,500.00	9,442.15	9,480.22	9,421.82	36.99	38.58	20.13	132.07	-1,083.20	157.59	87.62	69.97	2.252	
9,600.00	9,541.40	9,581.31	9,522.03	37.40	39.00	20.26	134.32	-1,096.33	158.76	88.01	70.75	2.244	
9,700.00	9,640.66	9,682.34	9,622.31	37.80	39.41	20.76	137.13	-1,108.27	159.14	87.60	71.55	2.224	
9,800.00	9,739.91	9,781.55	9,720.82	38.21	39.81	21.41	140.19	-1,119.61	159.33	86.98	72.34	2.202	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 6H (Well D) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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
9,900.00	9,839.36	9,880.54	9,818.94	38.61	40.22	21.19	142.05	-1,132.58	162.03	88.98	73.06	2.218	
10,000.00	9,939.11	9,980.97	9,918.40	38.98	40.65	20.01	142.46	-1,146.51	168.04	94.34	73.70	2.280	
10,100.00	10,039.04	10,082.39	10,018.89	39.33	41.07	18.30	141.90	-1,160.21	176.68	102.39	74.29	2.378	
10,200.00	10,139.04	10,183.73	10,119.43	39.65	41.48	-67.00	140.81	-1,172.76	187.16	112.30	74.86	2.500	
10,300.00	10,239.04	10,286.55	10,221.58	39.97	41.89	-68.86	138.82	-1,184.36	196.91	121.48	75.42	2.611	
10,400.00	10,339.04	10,388.10	10,322.54	40.28	42.28	-70.81	135.35	-1,194.69	205.29	129.31	75.99	2.702	
10,500.00	10,439.04	10,488.26	10,422.15	40.60	42.66	-72.69	131.36	-1,204.38	213.25	136.69	76.57	2.785	
10,600.00	10,539.04	10,589.30	10,522.70	40.92	43.04	-74.35	127.53	-1,213.58	220.92	143.75	77.17	2.863	
10,700.00	10,639.04	10,690.84	10,623.84	41.24	43.42	-75.76	124.04	-1,221.87	227.94	150.15	77.78	2.930	
10,800.00	10,739.04	10,791.17	10,723.83	41.56	43.78	-76.99	120.76	-1,229.32	234.39	155.97	78.42	2.989	
10,900.00	10,839.04	10,883.68	10,816.03	41.89	44.13	-77.41	120.70	-1,236.90	242.37	163.25	79.12	3.063	
11,000.00	10,938.95	10,972.00	10,903.77	42.20	44.48	103.18	124.09	-1,246.35	254.31	174.52	79.79	3.187	
11,100.00	11,037.16	11,066.00	10,996.81	42.50	44.87	105.12	128.19	-1,259.05	273.19	192.53	80.67	3.387	
11,200.00	11,130.73	11,160.82	11,090.57	42.77	45.28	108.55	129.77	-1,273.05	299.08	217.24	81.83	3.655	
11,300.00	11,216.80	11,271.66	11,200.71	43.01	45.71	114.34	127.80	-1,285.05	329.89	246.63	83.26	3.962	
11,400.00	11,292.78	11,360.57	11,289.43	43.23	46.02	118.95	124.86	-1,290.01	369.00	284.24	84.76	4.353	
11,500.00	11,356.34	11,432.19	11,360.97	43.41	46.25	121.34	122.34	-1,292.15	421.13	334.86	86.27	4.881	
11,600.00	11,405.56	11,488.03	11,416.78	43.59	46.42	120.61	120.38	-1,292.93	486.81	399.23	87.58	5.558	
11,700.00	11,438.94	11,526.71	11,455.43	43.79	46.54	115.21	119.03	-1,293.09	564.11	475.51	88.60	6.367	
11,800.00	11,455.47	11,545.70	11,474.40	44.02	46.60	102.53	118.37	-1,293.12	649.92	560.59	89.33	7.276	
11,900.00	11,458.23	12,625.77	12,051.15	44.31	48.91	153.61	-633.10	-1,288.55	665.40	609.80	55.60	11.968	
12,000.00	11,459.87	12,730.77	12,041.34	44.67	49.23	153.69	-737.36	-1,280.93	652.75	596.88	55.87	11.684	
12,100.00	11,461.51	12,830.64	12,031.50	45.08	49.61	153.73	-836.48	-1,273.77	639.68	583.52	56.16	11.390	
12,200.00	11,463.15	12,916.94	12,023.64	45.56	49.98	153.84	-922.16	-1,267.06	627.09	570.71	56.38	11.123	
12,300.00	11,464.79	12,991.71	12,019.90	46.10	50.33	154.06	-996.61	-1,261.39	618.16	561.51	56.65	10.912	
12,400.00	11,466.43	13,072.00	12,017.31	46.69	50.76	154.15	-1,076.77	-1,257.69	612.26	555.07	57.19	10.706	
12,500.00	11,468.07	13,166.00	12,014.71	47.33	51.32	153.95	-1,170.73	-1,257.07	608.44	550.49	57.95	10.499	
12,565.07	11,469.14	13,213.32	12,014.38	47.78	51.62	153.84	-1,218.05	-1,257.41	607.53	548.91	58.62	10.364	
12,600.00	11,469.72	13,239.12	12,014.88	48.02	51.79	153.82	-1,243.84	-1,257.44	607.79	548.80	58.99	10.303	
12,700.00	11,471.36	13,334.99	12,018.80	48.77	52.45	153.89	-1,339.62	-1,256.96	610.15	550.36	59.79	10.205	
12,800.00	11,473.00	13,470.34	12,019.77	49.55	53.44	153.77	-1,474.93	-1,256.51	609.63	549.32	60.31	10.108	
12,900.00	11,474.64	13,587.28	12,014.71	50.38	54.36	153.43	-1,591.77	-1,255.92	604.45	543.17	61.28	9.864	
13,000.00	11,476.28	13,681.00	12,009.06	51.25	55.15	153.08	-1,685.31	-1,255.63	597.91	535.46	62.45	9.575	
13,100.00	11,477.92	13,772.28	12,006.20	52.16	55.94	152.85	-1,776.54	-1,255.24	593.83	530.19	63.64	9.331	
13,200.00	11,479.56	13,861.57	12,003.74	53.10	56.73	152.68	-1,865.79	-1,254.34	589.98	525.07	64.91	9.089	
13,242.67	11,480.26	13,891.69	12,003.89	53.52	57.01	152.67	-1,895.91	-1,254.01	589.52	523.97	65.55	8.994	
13,300.00	11,481.20	13,938.56	12,005.40	54.08	57.44	152.71	-1,942.75	-1,253.49	590.23	523.92	66.31	8.901	
13,400.00	11,482.84	14,041.03	12,009.49	55.09	58.41	152.92	-2,045.12	-1,251.38	591.80	524.51	67.28	8.796	
13,500.00	11,484.48	14,145.59	12,013.37	56.14	59.43	153.16	-2,149.57	-1,248.64	592.88	524.65	68.23	8.690	
13,600.00	11,486.12	14,268.70	12,015.03	57.21	60.68	153.28	-2,272.61	-1,245.95	592.17	523.11	69.06	8.575	
13,700.00	11,487.76	14,369.57	12,011.37	58.30	61.74	152.91	-2,373.41	-1,246.64	588.19	517.62	70.57	8.334	
13,786.16	11,489.17	14,435.52	12,010.07	59.27	62.45	152.66	-2,439.33	-1,247.64	586.47	514.30	72.17	8.126	
13,800.00	11,489.40	14,445.43	12,010.18	59.43	62.56	152.64	-2,449.24	-1,247.73	586.51	514.08	72.43	8.098	
13,900.00	11,491.04	14,531.68	12,013.55	60.57	63.51	152.63	-2,535.43	-1,248.08	589.02	515.01	74.02	7.958	
14,000.00	11,492.68	14,636.16	12,017.28	61.75	64.68	152.54	-2,639.83	-1,249.26	591.69	516.29	75.40	7.847	
14,100.00	11,494.32	14,730.92	12,020.40	62.94	65.76	152.45	-2,734.54	-1,250.23	594.07	517.08	76.98	7.717	
14,200.00	11,495.96	14,828.49	12,025.42	64.15	66.89	152.51	-2,831.97	-1,250.38	597.66	519.25	78.42	7.622	
14,300.00	11,497.60	14,928.46	12,031.19	65.38	68.07	152.74	-2,931.76	-1,248.94	601.10	521.42	79.68	7.544	
14,400.00	11,499.24	15,033.56	12,037.73	66.63	69.32	153.11	-3,036.61	-1,246.05	604.36	523.62	80.74	7.485	
14,500.00	11,500.89	15,146.89	12,042.52	67.90	70.70	153.38	-3,149.80	-1,243.36	606.03	524.25	81.78	7.411	
14,600.00	11,502.53	15,268.22	12,043.06	69.18	72.19	153.47	-3,271.07	-1,240.35	604.16	521.28	82.88	7.290	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 6H (Well D) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 171-MWD

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
14,700.00	11,504.17	15,368.27	12,041.90	70.48	73.44	153.44	-3,371.10	-1,238.48	601.22	516.78	84.45	7.120	
14,800.00	11,505.81	15,460.37	12,040.82	71.79	74.61	153.41	-3,463.17	-1,236.65	598.28	512.13	86.15	6.944	
14,846.10	11,506.56	15,496.05	12,041.12	72.41	75.06	153.41	-3,498.85	-1,236.19	597.88	510.83	87.04	6.869	
14,900.00	11,507.45	15,543.56	12,042.31	73.12	75.67	153.42	-3,546.35	-1,235.82	598.31	510.33	87.99	6.800	
15,000.00	11,509.09	15,640.84	12,045.15	74.46	76.93	153.48	-3,643.57	-1,234.85	599.43	509.86	89.57	6.692	
15,100.00	11,510.73	15,735.70	12,049.42	75.81	78.17	153.70	-3,738.31	-1,232.68	601.38	510.36	91.02	6.607	
15,200.00	11,512.37	15,827.28	12,055.19	77.18	79.38	154.08	-3,829.65	-1,229.51	604.45	512.09	92.36	6.544	
15,300.00	11,514.01	15,915.31	12,062.48	78.55	80.55	154.54	-3,917.32	-1,226.15	609.20	515.54	93.66	6.504	
15,400.00	11,515.65	16,016.60	12,072.05	79.94	81.91	155.11	-4,018.07	-1,222.17	615.00	520.38	94.62	6.500	
15,500.00	11,517.29	16,117.00	12,080.50	81.34	83.27	155.53	-4,118.07	-1,219.40	620.40	524.64	95.76	6.479	
15,600.00	11,518.93	16,212.00	12,088.93	82.74	84.57	155.89	-4,212.68	-1,217.42	626.51	529.46	97.05	6.456	
15,700.00	11,520.57	16,306.00	12,098.04	84.15	85.86	156.23	-4,306.22	-1,215.79	633.53	535.18	98.35	6.442	
15,800.00	11,522.21	16,400.00	12,107.70	85.58	87.17	156.51	-4,399.72	-1,215.08	641.50	541.78	99.72	6.433	
15,900.00	11,523.85	16,495.00	12,117.20	87.01	88.50	156.74	-4,494.24	-1,214.85	649.47	548.34	101.13	6.422	
16,000.00	11,525.49	16,589.00	12,127.87	88.45	89.82	157.02	-4,587.62	-1,214.39	658.59	556.11	102.48	6.427	
16,100.00	11,527.13	16,662.42	12,139.03	89.89	90.85	157.38	-4,660.18	-1,213.47	670.79	566.91	103.88	6.457	
16,200.00	11,528.77	16,756.81	12,155.16	91.34	92.19	157.89	-4,753.17	-1,212.20	684.95	580.05	104.90	6.530	
16,300.00	11,530.42	16,849.09	12,171.26	92.80	93.50	158.36	-4,844.02	-1,211.19	699.60	593.64	105.96	6.602	
16,400.00	11,532.06	16,938.44	12,187.94	94.27	94.77	158.82	-4,931.80	-1,210.31	715.49	608.47	107.02	6.685	
16,500.00	11,533.70	17,021.00	12,204.32	95.74	95.95	159.25	-5,012.72	-1,209.50	732.62	624.52	108.10	6.777	
16,600.00	11,535.34	17,021.00	12,204.32	97.22	95.95	159.25	-5,012.72	-1,209.50	757.77	648.25	109.52	6.919	
16,700.00	11,536.98	17,021.00	12,204.32	98.70	95.95	159.25	-5,012.72	-1,209.50	794.78	684.48	110.30	7.205	
16,800.00	11,538.62	17,021.00	12,204.32	100.19	95.95	159.25	-5,012.72	-1,209.50	842.12	731.55	110.56	7.617	
16,900.00	11,540.26	17,021.00	12,204.32	101.68	95.95	159.25	-5,012.72	-1,209.50	898.13	787.69	110.43	8.133	
17,000.00	11,541.90	17,021.00	12,204.32	103.18	95.95	159.25	-5,012.72	-1,209.50	961.31	851.26	110.05	8.735	
17,100.00	11,543.54	17,021.00	12,204.32	104.68	95.95	159.25	-5,012.72	-1,209.50	1,030.33	920.82	109.52	9.408	
17,200.00	11,545.18	17,021.00	12,204.32	106.19	95.95	159.25	-5,012.72	-1,209.50	1,104.11	995.20	108.91	10.138	
17,300.00	11,546.82	17,021.00	12,204.32	107.70	95.95	159.25	-5,012.72	-1,209.50	1,181.75	1,073.46	108.29	10.913	
17,400.00	11,548.46	17,021.00	12,204.32	109.22	95.95	159.25	-5,012.72	-1,209.50	1,262.54	1,154.87	107.67	11.726	
17,500.00	11,550.10	17,021.00	12,204.32	110.74	95.95	159.25	-5,012.72	-1,209.50	1,345.91	1,238.83	107.09	12.568	
17,600.00	11,551.74	17,021.00	12,204.32	112.26	95.95	159.25	-5,012.72	-1,209.50	1,431.42	1,324.88	106.54	13.435	
17,700.00	11,553.38	17,021.00	12,204.32	113.79	95.95	159.25	-5,012.72	-1,209.50	1,518.70	1,412.66	106.04	14.322	
17,800.00	11,555.02	17,021.00	12,204.32	115.32	95.95	159.25	-5,012.72	-1,209.50	1,607.45	1,501.88	105.58	15.226	
17,900.00	11,556.66	17,021.00	12,204.32	116.85	95.95	159.25	-5,012.72	-1,209.50	1,697.46	1,592.31	105.15	16.143	
18,000.00	11,558.30	17,021.00	12,204.32	118.39	95.95	159.25	-5,012.72	-1,209.50	1,788.54	1,683.76	104.77	17.071	
18,100.00	11,559.94	17,021.00	12,204.32	119.93	95.95	159.25	-5,012.72	-1,209.50	1,880.51	1,776.09	104.43	18.008	
18,200.00	11,561.59	17,021.00	12,204.32	121.47	95.95	159.25	-5,012.72	-1,209.50	1,973.27	1,869.16	104.11	18.953	
18,300.00	11,563.23	17,021.00	12,204.32	123.02	95.95	159.25	-5,012.72	-1,209.50	2,066.71	1,962.88	103.83	19.905	
18,400.00	11,564.87	17,021.00	12,204.32	124.57	95.95	159.25	-5,012.72	-1,209.50	2,160.73	2,057.16	103.58	20.861	
18,500.00	11,566.51	17,021.00	12,204.32	126.12	95.95	159.25	-5,012.72	-1,209.50	2,255.27	2,151.92	103.35	21.822	
18,600.00	11,568.15	17,021.00	12,204.32	127.67	95.95	159.25	-5,012.72	-1,209.50	2,350.26	2,247.12	103.14	22.787	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01 — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	24.00	0.00	0.00	96.43	-19.17	170.03	172.78				
100.00	100.00	76.18	100.18	0.27	0.19	96.46	-19.26	169.99	171.08	170.62	0.46	375.130	
200.00	200.00	176.36	200.36	0.63	0.55	96.71	-19.96	169.71	170.88	169.71	1.17	145.565	
215.23	215.23	191.23	215.23	0.68	0.60	96.76	-20.12	169.68	170.87	169.59	1.28	133.299	
300.00	300.00	276.10	300.09	0.99	0.90	97.16	-21.32	169.57	170.91	169.01	1.89	90.407	
400.00	400.00	376.98	400.95	1.34	1.27	97.73	-22.96	169.07	170.62	168.01	2.61	65.333	
500.00	500.00	476.93	500.89	1.70	1.63	98.18	-24.19	168.34	170.07	166.74	3.33	51.091	
600.00	600.00	577.10	601.06	2.06	1.98	98.50	-25.04	167.63	169.49	165.44	4.05	41.892	
700.00	700.00	677.17	701.12	2.42	2.34	98.83	-25.92	166.85	168.85	164.09	4.76	35.453	
800.00	800.00	777.41	801.35	2.78	2.70	99.12	-26.66	166.00	168.13	162.65	5.48	30.682	
900.00	900.00	877.72	901.65	3.14	3.06	99.41	-27.34	164.97	167.22	161.03	6.20	26.991	
1,000.00	1,000.00	977.52	1,001.45	3.50	3.41	99.52	-27.48	163.94	166.23	159.33	6.91	24.072	
1,100.00	1,100.00	1,077.62	1,101.54	3.85	3.76	99.53	-27.38	163.14	165.43	157.82	7.62	21.723	
1,200.00	1,200.00	1,178.33	1,202.25	4.21	4.12	99.66	-27.56	161.93	164.27	155.94	8.33	19.722	
1,244.40	1,244.40	1,220.48	1,244.40	4.37	4.26	99.71	-27.65	161.58	163.93	155.30	8.63	18.986	CC, ES
1,300.00	1,300.00	1,272.90	1,296.81	4.57	4.44	99.72	-27.77	162.08	164.47	155.46	9.01	18.250	
1,400.00	1,400.00	1,366.32	1,390.15	4.93	4.76	99.47	-27.66	165.78	168.36	158.69	9.67	17.409	
1,500.00	1,500.00	1,459.29	1,482.82	5.29	5.07	98.81	-26.86	173.25	176.16	165.84	10.31	17.079	
1,600.00	1,599.98	1,551.42	1,574.25	5.64	5.38	-157.28	-25.29	184.33	189.42	178.49	10.93	17.325	
1,700.00	1,699.84	1,643.02	1,664.70	5.97	5.70	-158.82	-22.98	198.61	209.41	197.87	11.54	18.149	
1,800.00	1,799.45	1,735.71	1,755.82	6.32	6.04	-160.49	-20.31	215.34	235.16	222.99	12.16	19.333	
1,900.00	1,898.76	1,831.32	1,849.69	6.67	6.40	-162.13	-17.73	233.34	264.66	251.83	12.83	20.631	
2,000.00	1,998.01	1,931.93	1,948.67	7.03	6.79	-163.51	-15.49	251.26	293.77	280.22	13.54	21.691	
2,100.00	2,097.27	2,030.63	2,046.02	7.39	7.18	-164.56	-13.58	267.40	321.57	307.33	14.24	22.581	
2,200.00	2,196.52	2,130.38	2,144.55	7.76	7.57	-165.45	-11.66	282.82	348.58	333.63	14.95	23.317	
2,300.00	2,295.78	2,236.04	2,249.22	8.14	7.99	-166.31	-9.24	297.02	373.68	357.97	15.70	23.796	
2,400.00	2,395.03	2,332.33	2,344.72	8.51	8.36	-167.17	-5.93	308.92	397.85	381.46	16.39	24.279	
2,500.00	2,494.29	2,428.17	2,439.70	8.89	8.74	-167.92	-2.62	321.26	422.59	405.52	17.07	24.759	
2,600.00	2,593.54	2,535.31	2,546.09	9.27	9.15	-168.40	-1.07	333.76	446.10	428.27	17.83	25.016	
2,700.00	2,692.80	2,638.42	2,648.70	9.66	9.55	-177.11	0.12	343.83	467.73	449.16	18.57	25.193	
2,800.00	2,792.07	2,731.35	2,741.18	10.04	9.90	169.21	2.54	352.60	489.20	469.96	19.23	25.433	
2,900.00	2,891.33	2,816.47	2,825.69	10.43	10.24	169.13	5.81	362.21	512.56	492.71	19.85	25.823	
3,000.00	2,990.58	2,901.92	2,910.24	10.82	10.58	169.04	9.45	374.02	538.38	517.92	20.46	26.314	
3,100.00	3,089.84	2,997.46	3,004.65	11.21	10.97	169.03	12.86	388.24	565.21	544.06	21.15	26.721	
3,200.00	3,189.09	3,095.20	3,101.31	11.60	11.38	169.10	15.47	402.53	591.72	569.86	21.86	27.064	
3,300.00	3,288.35	3,190.55	3,195.55	11.99	11.77	169.23	17.43	416.93	618.64	596.09	22.56	27.425	
3,400.00	3,387.60	3,300.30	3,304.21	12.38	12.22	169.38	19.32	432.19	644.40	621.04	23.36	27.584	
3,500.00	3,486.86	3,418.75	3,421.86	12.78	12.69	169.53	21.21	445.74	667.79	643.58	24.21	27.581	
3,600.00	3,586.11	3,526.80	3,529.50	13.17	13.10	169.69	22.36	455.12	688.38	663.40	24.98	27.555	
3,700.00	3,685.37	3,635.18	3,637.57	13.57	13.50	169.86	23.16	463.24	707.81	682.06	25.75	27.489	
3,800.00	3,784.62	3,728.00	3,730.14	13.97	13.85	170.01	23.69	470.05	727.07	700.64	26.43	27.510	
3,900.00	3,883.88	3,819.56	3,821.39	14.36	14.19	170.11	24.82	477.44	747.09	719.99	27.10	27.565	
4,000.00	3,983.13	3,915.05	3,916.52	14.76	14.56	170.13	26.98	485.47	767.52	739.72	27.80	27.610	
4,100.00	4,082.39	4,013.81	4,014.88	15.16	14.93	170.08	30.19	493.82	788.05	759.53	28.51	27.637	
4,200.00	4,181.64	4,111.68	4,112.31	15.56	15.31	169.97	34.26	502.00	808.54	779.31	29.23	27.666	
4,300.00	4,280.90	4,215.44	4,215.68	15.96	15.70	169.92	37.62	510.37	828.68	798.71	29.97	27.649	
4,400.00	4,380.15	4,316.77	4,316.72	16.36	16.08	170.03	38.64	517.95	848.12	817.41	30.70	27.624	
4,500.00	4,479.40	4,410.47	4,410.14	16.76	16.43	170.23	38.06	525.18	867.71	836.32	31.39	27.644	
4,600.00	4,578.66	4,501.08	4,500.42	17.16	16.77	170.44	37.12	532.83	888.00	855.94	32.06	27.701	
4,700.00	4,677.91	4,597.66	4,596.59	17.56	17.14	170.63	36.69	541.68	909.03	876.27	32.76	27.747	
4,800.00	4,777.17	4,713.17	4,711.71	17.96	17.58	170.82	36.33	551.09	929.12	895.54	33.58	27.669	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,876.42	4,818.98	4,817.30	18.36	17.97	170.98	36.16	557.90	947.48	913.15	34.34	27.595	
5,000.00	4,975.68	4,920.17	4,918.31	18.76	18.34	171.09	36.48	564.07	965.56	930.50	35.06	27.537	
5,100.00	5,074.93	5,024.66	5,022.63	19.17	18.72	171.20	36.81	569.97	983.20	947.39	35.81	27.456	
5,200.00	5,174.19	5,132.51	5,130.35	19.57	19.11	171.30	37.20	575.22	1,000.07	963.50	36.57	27.346	
5,300.00	5,273.44	5,243.34	5,241.10	19.97	19.50	171.40	37.76	579.26	1,015.73	978.39	37.34	27.200	
5,400.00	5,372.70	5,343.55	5,341.27	20.37	19.86	171.48	38.22	582.38	1,030.88	992.82	38.06	27.083	
5,500.00	5,471.95	5,454.80	5,452.47	20.78	20.24	171.59	38.36	585.41	1,045.67	1,006.84	38.83	26.929	
5,600.00	5,571.21	5,565.38	5,563.05	21.18	20.62	171.71	38.19	586.55	1,058.72	1,019.13	39.59	26.741	
5,700.00	5,670.46	5,661.14	5,658.80	21.58	20.95	171.82	37.78	587.40	1,071.64	1,031.35	40.29	26.597	
5,800.00	5,769.72	5,750.55	5,748.19	21.99	21.25	171.95	37.04	588.72	1,085.17	1,044.20	40.96	26.490	
5,900.00	5,868.97	5,837.68	5,835.29	22.39	21.56	172.09	35.89	590.95	1,099.74	1,058.11	41.63	26.420	
6,000.00	5,968.23	5,929.01	5,926.55	22.79	21.88	172.26	34.23	594.19	1,115.28	1,072.97	42.30	26.363	
6,100.00	6,067.48	6,021.50	6,018.94	23.20	22.21	172.44	32.21	597.87	1,131.27	1,088.28	42.99	26.316	
6,200.00	6,166.74	6,116.86	6,114.16	23.60	22.55	172.67	29.43	602.27	1,147.88	1,104.19	43.68	26.277	
6,300.00	6,265.99	6,220.92	6,218.06	24.01	22.92	172.92	25.92	606.87	1,164.31	1,119.89	44.43	26.208	
6,400.00	6,365.25	6,335.20	6,332.21	24.41	23.32	173.17	22.62	610.97	1,179.96	1,134.74	45.22	26.096	
6,500.00	6,464.50	6,446.39	6,443.36	24.82	23.71	173.34	20.69	613.46	1,194.28	1,148.29	45.99	25.970	
6,600.00	6,563.76	6,591.83	6,588.77	25.22	24.19	173.42	21.22	613.92	1,206.91	1,160.04	46.87	25.750	
6,700.00	6,663.01	6,731.66	6,728.13	25.63	24.63	173.05	30.85	608.34	1,214.96	1,167.29	47.67	25.488	
6,800.00	6,762.27	6,835.86	6,831.77	26.03	24.95	172.71	39.67	602.04	1,221.07	1,172.69	48.37	25.243	
6,900.00	6,861.52	6,902.00	6,897.71	26.44	25.15	172.57	43.59	598.87	1,228.59	1,179.60	48.99	25.078	
7,000.00	6,960.78	6,974.35	6,970.01	26.84	25.39	172.53	45.58	597.22	1,238.55	1,188.94	49.61	24.966	
7,100.00	7,060.03	7,061.20	7,056.86	27.25	25.68	172.60	45.53	597.30	1,250.68	1,200.41	50.27	24.878	
7,200.00	7,159.29	7,158.81	7,154.47	27.65	26.02	172.68	45.17	597.61	1,263.08	1,212.10	50.98	24.776	
7,300.00	7,258.54	7,265.53	7,261.19	28.06	26.37	172.76	45.15	597.80	1,275.35	1,223.63	51.72	24.659	
7,400.00	7,357.80	7,361.02	7,356.68	28.46	26.69	172.82	45.21	597.67	1,287.31	1,234.90	52.41	24.563	
7,500.00	7,457.05	7,455.11	7,450.76	28.87	27.01	172.89	45.04	597.94	1,299.69	1,246.59	53.10	24.476	
7,600.00	7,556.31	7,566.79	7,562.44	29.27	27.39	172.97	45.00	598.04	1,311.88	1,258.03	53.86	24.358	
7,700.00	7,655.56	7,660.83	7,656.49	29.68	27.70	173.02	45.16	597.81	1,323.73	1,269.20	54.54	24.272	
7,800.00	7,754.82	7,754.29	7,749.94	30.08	28.01	173.07	45.48	597.96	1,335.99	1,280.77	55.22	24.193	
7,900.00	7,854.07	7,859.08	7,854.74	30.49	28.36	173.13	45.56	598.10	1,348.22	1,292.27	55.95	24.096	
8,000.00	7,953.33	7,958.69	7,954.35	30.90	28.69	173.19	45.61	598.03	1,360.24	1,303.59	56.66	24.009	
8,100.00	8,052.58	8,056.41	8,052.07	31.30	29.02	173.25	45.69	598.02	1,372.34	1,314.99	57.36	23.927	
8,200.00	8,151.84	8,155.23	8,150.88	31.71	29.36	173.30	45.81	598.05	1,384.47	1,326.40	58.06	23.844	
8,300.00	8,251.09	8,251.23	8,246.88	32.11	29.69	173.35	46.00	598.23	1,396.76	1,338.00	58.76	23.769	
8,400.00	8,350.35	8,347.96	8,343.61	32.52	30.02	173.39	46.28	598.62	1,409.26	1,349.79	59.47	23.698	
8,500.00	8,449.60	8,444.94	8,440.59	32.93	30.36	173.43	46.85	599.14	1,421.90	1,361.73	60.17	23.631	
8,600.00	8,548.86	8,540.95	8,536.59	33.33	30.69	173.44	47.86	599.86	1,434.75	1,373.88	60.87	23.570	
8,700.00	8,648.11	8,637.02	8,632.64	33.74	31.03	173.43	49.43	600.78	1,447.81	1,386.23	61.57	23.514	
8,800.00	8,747.37	8,734.47	8,730.07	34.15	31.36	173.40	51.46	601.92	1,461.07	1,398.79	62.28	23.461	
8,900.00	8,846.62	8,838.00	8,833.57	34.55	31.72	173.36	53.90	603.04	1,474.25	1,411.24	63.01	23.397	
9,000.00	8,945.88	8,943.47	8,939.00	34.96	32.09	173.33	56.21	603.72	1,487.00	1,423.24	63.75	23.325	
9,100.00	9,045.13	9,046.71	9,042.22	35.36	32.44	173.30	58.64	604.05	1,499.42	1,434.94	64.48	23.254	
9,200.00	9,144.39	9,150.23	9,145.70	35.77	32.79	173.24	61.46	604.10	1,511.58	1,446.37	65.21	23.180	
9,300.00	9,243.64	9,250.35	9,245.78	36.18	33.14	173.19	64.34	603.96	1,523.54	1,457.62	65.92	23.111	
9,400.00	9,342.90	9,360.58	9,355.96	36.58	33.51	173.13	67.48	603.45	1,535.20	1,468.53	66.68	23.024	
9,500.00	9,442.15	9,464.14	9,459.47	36.99	33.86	173.07	70.53	602.40	1,546.31	1,478.90	67.40	22.941	
9,600.00	9,541.40	9,562.99	9,558.27	37.40	34.19	173.02	73.33	601.31	1,557.33	1,489.22	68.11	22.865	
9,700.00	9,640.66	9,665.51	9,660.74	37.80	34.54	172.96	76.46	600.06	1,568.23	1,499.40	68.83	22.784	
9,800.00	9,739.91	9,763.32	9,758.48	38.21	34.87	172.89	79.91	598.78	1,579.05	1,509.51	69.53	22.709	
9,900.00	9,839.36	9,852.81	9,847.90	38.61	35.17	172.84	83.20	597.93	1,588.56	1,518.36	70.20	22.628	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01 — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,939.11	9,937.14	9,932.17	38.98	35.46	172.76	86.42	597.87	1,595.48	1,524.63	70.84	22.521	
10,100.00	10,039.04	10,027.16	10,022.11	39.33	35.77	172.66	90.15	598.51	1,599.73	1,528.23	71.51	22.372	
10,200.00	10,139.04	10,129.95	10,124.80	39.65	36.13	89.05	94.68	599.43	1,601.14	1,528.93	72.21	22.173	
10,300.00	10,239.04	10,228.66	10,223.36	39.97	36.48	88.86	100.08	600.25	1,602.08	1,529.18	72.90	21.977	
10,400.00	10,339.04	10,328.67	10,323.13	40.28	36.83	88.61	106.84	601.11	1,603.08	1,529.49	73.59	21.784	
10,500.00	10,439.04	10,429.39	10,423.64	40.60	37.18	88.38	113.32	601.86	1,604.00	1,529.72	74.29	21.592	
10,600.00	10,539.04	10,524.65	10,518.83	40.92	37.51	88.27	116.51	602.84	1,605.12	1,530.17	74.96	21.414	
10,700.00	10,639.04	10,622.74	10,616.91	41.24	37.86	88.25	117.26	604.13	1,606.46	1,530.82	75.64	21.238	
10,800.00	10,739.04	10,722.87	10,717.03	41.56	38.21	88.23	117.65	605.47	1,607.81	1,531.48	76.34	21.062	
10,900.00	10,839.04	10,819.62	10,813.77	41.89	38.55	88.22	118.10	606.86	1,609.27	1,532.25	77.02	20.895	
11,000.00	10,938.95	10,918.39	10,912.53	42.20	38.90	-91.25	118.26	608.52	1,611.01	1,533.31	77.70	20.734	
11,100.00	11,037.16	11,031.30	11,025.43	42.50	39.30	-91.80	117.91	610.01	1,612.84	1,534.41	78.43	20.565	
11,200.00	11,130.73	11,147.06	11,141.18	42.77	39.69	-93.02	116.60	610.11	1,614.43	1,535.28	79.14	20.399	
11,300.00	11,216.80	11,229.68	11,223.78	43.01	39.96	-94.14	114.93	609.68	1,617.42	1,537.72	79.70	20.295	
11,400.00	11,292.78	11,552.58	11,529.63	43.23	40.90	-98.92	28.31	595.90	1,618.57	1,537.98	80.59	20.084	
11,500.00	11,356.34	11,687.64	11,635.67	43.41	41.16	-100.48	-54.23	585.28	1,613.78	1,532.73	81.05	19.912	
11,600.00	11,405.56	11,784.25	11,699.60	43.59	41.33	-101.45	-126.34	579.46	1,611.12	1,529.61	81.52	19.765	
11,609.08	11,409.26	11,791.32	11,703.97	43.61	41.35	-101.52	-131.89	579.15	1,611.10	1,529.55	81.56	19.754	
11,700.00	11,438.94	11,858.67	11,743.60	43.79	41.48	-102.00	-186.29	577.07	1,613.25	1,531.30	81.95	19.686	
11,800.00	11,455.47	11,927.00	11,779.07	44.02	41.66	-102.12	-244.66	577.24	1,621.05	1,538.73	82.32	19.692	
11,900.00	11,458.23	11,964.79	11,796.69	44.31	41.78	-102.26	-278.05	578.80	1,634.83	1,552.24	82.59	19.794	
12,000.00	11,459.87	11,984.00	11,805.21	44.67	41.84	-102.54	-295.20	580.20	1,652.99	1,570.14	82.85	19.951	
12,100.00	11,461.51	12,022.00	11,821.07	45.08	41.97	-103.03	-329.44	584.68	1,675.07	1,591.88	83.18	20.137	
12,200.00	11,463.15	12,069.00	11,838.24	45.56	42.16	-103.53	-372.31	593.29	1,701.17	1,617.59	83.58	20.353	
12,300.00	11,464.79	12,160.22	11,860.17	46.10	42.54	-104.05	-457.94	615.25	1,729.45	1,645.20	84.26	20.526	
12,400.00	11,466.43	12,824.71	11,907.79	46.69	46.26	-104.72	-1,111.98	684.62	1,733.60	1,644.50	89.10	19.457	
12,500.00	11,468.07	12,922.84	11,909.57	47.33	46.94	-104.77	-1,210.04	681.08	1,729.27	1,638.83	90.44	19.121	
12,600.00	11,469.72	13,029.01	11,910.95	48.02	47.72	-104.79	-1,316.13	677.34	1,724.88	1,632.95	91.94	18.762	
12,700.00	11,471.36	13,146.75	11,909.54	48.77	48.65	-104.73	-1,433.79	673.11	1,719.80	1,626.15	93.66	18.362	
12,800.00	11,473.00	13,244.99	11,907.47	49.55	49.47	-104.66	-1,531.91	668.93	1,713.85	1,618.55	95.30	17.984	
12,900.00	11,474.64	13,326.46	11,906.15	50.38	50.18	-104.60	-1,613.34	666.42	1,709.10	1,612.26	96.84	17.648	
13,000.00	11,476.28	13,444.14	11,903.41	51.25	51.25	-104.49	-1,730.91	662.32	1,703.79	1,604.95	98.84	17.238	
13,100.00	11,477.92	13,544.02	11,901.32	52.16	52.19	-104.41	-1,830.70	658.63	1,698.38	1,597.66	100.72	16.862	
13,200.00	11,479.56	13,658.84	11,898.40	53.10	53.31	-104.30	-1,945.39	653.98	1,692.54	1,589.70	102.84	16.458	
13,300.00	11,481.20	13,742.55	11,896.84	54.08	54.16	-104.24	-2,029.00	650.17	1,686.42	1,581.75	104.67	16.112	
13,400.00	11,482.84	13,828.23	11,895.69	55.09	55.05	-104.19	-2,114.62	647.35	1,681.57	1,575.01	106.56	15.780	
13,500.00	11,484.48	13,903.67	11,895.41	56.14	55.85	-104.16	-2,190.03	645.14	1,677.44	1,569.06	108.37	15.478	
13,600.00	11,486.12	13,966.00	11,896.77	57.21	56.53	-104.18	-2,252.33	644.47	1,675.56	1,565.53	110.02	15.229	
13,700.00	11,487.76	14,077.12	11,901.67	58.30	57.77	-104.30	-2,363.34	643.45	1,674.47	1,562.13	112.34	14.905	
13,800.00	11,489.40	14,175.26	11,906.62	59.43	58.89	-104.43	-2,461.34	641.98	1,672.97	1,558.45	114.53	14.608	
13,900.00	11,491.04	14,274.27	11,911.41	60.57	60.05	-104.55	-2,560.23	640.71	1,671.64	1,554.87	116.77	14.316	
14,000.00	11,492.68	14,379.46	11,916.71	61.75	61.30	-104.70	-2,665.27	639.03	1,670.05	1,550.92	119.13	14.019	
14,100.00	11,494.32	14,480.89	11,922.08	62.94	62.53	-104.84	-2,766.54	637.24	1,668.39	1,546.91	121.48	13.734	
14,200.00	11,495.96	14,854.00	11,946.52	64.15	67.09	-105.80	-3,136.03	602.87	1,663.60	1,536.93	126.67	13.134	
14,300.00	11,497.60	14,931.95	11,951.20	65.38	68.04	-106.07	-3,212.51	588.52	1,646.18	1,517.37	128.81	12.780	
14,400.00	11,499.24	14,997.00	11,953.24	66.63	68.84	-106.21	-3,276.67	578.03	1,630.30	1,499.41	130.89	12.455	
14,500.00	11,500.89	15,075.80	11,953.62	67.90	69.84	-106.29	-3,354.72	567.24	1,616.01	1,482.87	133.14	12.138	
14,600.00	11,502.53	15,144.19	11,953.08	69.18	70.71	-106.32	-3,422.66	559.42	1,603.49	1,468.18	135.31	11.850	
14,700.00	11,504.17	15,218.32	11,952.53	70.48	71.68	-106.34	-3,496.45	552.44	1,592.86	1,455.30	137.56	11.580	
14,800.00	11,505.81	15,307.83	11,952.02	71.79	72.85	-106.35	-3,585.65	544.96	1,583.33	1,443.33	140.00	11.310	
14,900.00	11,507.45	15,404.04	11,951.30	73.12	74.13	-106.36	-3,681.53	537.09	1,573.94	1,431.39	142.55	11.041	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01

Offset Site Error: 0.00 usft

Survey Program: 24-MWD

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
15,000.00	11,509.09	15,498.19	11,950.70	74.46	75.39	-106.37	-3,775.43	530.11	1,565.28	1,420.19	145.10	10.788	
15,100.00	11,510.73	15,610.02	11,949.78	75.81	76.90	-106.38	-3,886.86	520.84	1,555.71	1,407.82	147.89	10.519	
15,200.00	11,512.37	15,688.20	11,948.90	77.18	77.97	-106.37	-3,964.80	514.78	1,546.66	1,396.38	150.28	10.292	
15,300.00	11,514.01	15,755.27	11,948.21	78.55	78.89	-106.36	-4,031.76	510.96	1,539.56	1,387.04	152.52	10.094	
15,400.00	11,515.65	15,859.04	11,947.48	79.94	80.33	-106.33	-4,135.41	505.93	1,533.36	1,378.07	155.29	9.874	
15,500.00	11,517.29	15,957.85	11,946.39	81.34	81.71	-106.30	-4,234.09	500.97	1,526.89	1,368.86	158.02	9.662	
15,600.00	11,518.93	16,036.00	11,946.08	82.74	82.81	-106.28	-4,312.17	497.79	1,521.49	1,361.05	160.44	9.483	
15,700.00	11,520.57	16,131.00	11,945.86	84.15	84.16	-106.26	-4,407.12	494.71	1,516.96	1,353.82	163.14	9.299	
15,800.00	11,522.21	16,197.21	11,945.34	85.58	85.10	-106.22	-4,473.31	493.40	1,513.52	1,348.16	165.36	9.153	
15,900.00	11,523.85	16,279.97	11,944.80	87.01	86.29	-106.16	-4,556.07	493.48	1,512.04	1,344.17	167.87	9.007	
16,000.00	11,525.49	16,377.26	11,944.33	88.45	87.70	-106.09	-4,653.36	493.92	1,510.99	1,340.32	170.67	8.853	
16,100.00	11,527.13	16,481.61	11,944.25	89.89	89.21	-106.03	-4,757.71	494.26	1,509.94	1,336.33	173.61	8.697	
16,200.00	11,528.77	16,579.33	11,944.22	91.34	90.63	-105.98	-4,855.43	494.33	1,508.67	1,332.24	176.43	8.551	
16,287.62	11,530.21	16,650.16	11,944.61	92.62	91.67	-105.95	-4,926.25	494.70	1,508.09	1,329.48	178.61	8.443	
16,300.00	11,530.42	16,659.52	11,944.65	92.80	91.81	-105.95	-4,935.62	494.83	1,508.10	1,329.20	178.91	8.430	
16,400.00	11,532.06	16,751.18	11,944.93	94.27	93.16	-105.89	-5,027.25	496.75	1,508.84	1,327.21	181.63	8.307	
16,500.00	11,533.70	16,845.48	11,945.30	95.74	94.55	-105.84	-5,121.53	498.71	1,509.62	1,325.21	184.41	8.186	
16,600.00	11,535.34	16,949.34	11,946.49	97.22	96.10	-105.80	-5,225.36	501.17	1,510.89	1,323.48	187.41	8.062	
16,700.00	11,536.98	17,062.65	11,945.50	98.70	97.78	-105.69	-5,338.63	503.48	1,511.28	1,320.62	190.66	7.927	
16,800.00	11,538.62	17,165.36	11,942.99	100.19	99.32	-105.52	-5,441.29	505.48	1,511.16	1,317.43	193.73	7.800	
16,829.20	11,539.10	17,191.94	11,942.50	100.63	99.72	-105.49	-5,467.86	505.95	1,511.13	1,316.58	194.56	7.767	
16,900.00	11,540.26	17,255.70	11,942.53	101.68	100.68	-105.44	-5,531.61	506.97	1,511.30	1,314.80	196.50	7.691	
17,000.00	11,541.90	17,354.09	11,943.61	103.18	102.16	-105.42	-5,629.98	508.58	1,511.84	1,312.42	199.42	7.581	
17,100.00	11,543.54	17,466.85	11,941.73	104.68	103.86	-105.27	-5,742.69	510.73	1,511.91	1,309.18	202.73	7.458	
17,200.00	11,545.18	17,564.71	11,938.64	106.19	105.35	-105.09	-5,840.49	512.78	1,511.78	1,306.03	205.76	7.347	
17,300.00	11,546.82	17,682.38	11,935.00	107.70	107.13	-104.87	-5,958.09	514.71	1,511.28	1,302.06	209.22	7.223	
17,400.00	11,548.46	17,793.14	11,931.64	109.22	108.82	-104.69	-6,068.80	514.90	1,509.33	1,296.81	212.52	7.102	
17,500.00	11,550.10	17,889.48	11,928.50	110.74	110.29	-104.52	-6,165.08	515.18	1,507.48	1,291.94	215.54	6.994	
17,600.00	11,551.74	17,987.81	11,925.45	112.26	111.79	-104.36	-6,263.37	515.60	1,505.82	1,287.21	218.61	6.888	
17,700.00	11,553.38	18,083.45	11,922.99	113.79	113.26	-104.21	-6,358.97	516.02	1,504.31	1,282.69	221.62	6.788	
17,800.00	11,555.02	18,182.01	11,921.95	115.32	114.77	-104.12	-6,457.52	516.35	1,503.08	1,278.42	224.66	6.691	
17,900.00	11,556.66	18,280.46	11,920.51	116.85	116.28	-104.01	-6,555.97	516.81	1,501.89	1,274.18	227.71	6.596	
18,000.00	11,558.30	18,380.83	11,918.38	118.39	117.83	-103.87	-6,656.30	517.52	1,500.77	1,269.94	230.83	6.502	
18,100.00	11,559.94	18,485.58	11,916.15	119.93	119.44	-103.73	-6,761.03	518.08	1,499.49	1,265.44	234.05	6.407	
18,200.00	11,561.59	18,582.00	11,914.02	121.47	120.94	-103.60	-6,857.43	518.61	1,498.22	1,261.12	237.10	6.319	
18,300.00	11,563.23	18,672.15	11,913.33	123.02	122.33	-103.52	-6,947.57	519.22	1,497.41	1,257.42	239.99	6.239	
18,400.00	11,564.87	18,765.81	11,914.39	124.57	123.79	-103.50	-7,041.21	519.87	1,497.07	1,254.16	242.91	6.163	
18,500.00	11,566.51	18,871.61	11,916.08	126.12	125.43	-103.50	-7,147.01	520.51	1,496.76	1,250.67	246.08	6.082	
18,600.00	11,568.15	18,972.53	11,917.73	127.67	127.00	-103.51	-7,247.91	520.88	1,496.21	1,247.06	249.15	6.005	
18,700.00	11,569.79	19,075.28	11,918.86	129.23	128.60	-103.49	-7,350.66	521.29	1,495.58	1,243.30	252.28	5.928	
18,800.00	11,571.43	19,179.06	11,919.08	130.79	130.22	-103.44	-7,454.43	521.53	1,494.57	1,239.12	255.45	5.851	
18,900.00	11,573.07	19,273.98	11,919.33	132.35	131.71	-103.40	-7,549.35	521.94	1,493.77	1,235.32	258.44	5.780	
19,000.00	11,574.71	19,374.82	11,918.70	133.91	133.29	-103.31	-7,650.18	522.72	1,493.11	1,231.51	261.60	5.708	
19,100.00	11,576.35	19,478.59	11,917.43	135.48	134.91	-103.21	-7,753.94	523.46	1,492.24	1,227.41	264.83	5.635	
19,200.00	11,577.99	19,582.66	11,916.12	137.04	136.55	-103.10	-7,858.00	523.95	1,491.14	1,223.06	268.08	5.562	
19,300.00	11,579.63	19,681.95	11,914.94	138.61	138.10	-103.00	-7,957.28	524.19	1,489.84	1,218.62	271.23	5.493	
19,400.00	11,581.27	19,775.25	11,914.19	140.18	139.57	-102.92	-8,050.59	524.61	1,488.84	1,214.59	274.24	5.429	
19,500.00	11,582.91	19,868.02	11,915.21	141.76	141.03	-102.90	-8,143.34	525.11	1,488.34	1,211.15	277.19	5.369	
19,600.00	11,584.55	19,970.42	11,916.81	143.33	142.65	-102.90	-8,245.73	525.83	1,488.11	1,207.77	280.34	5.308	
19,700.00	11,586.19	20,078.17	11,918.45	144.91	144.35	-102.90	-8,353.47	526.09	1,487.42	1,203.82	283.60	5.245	
19,800.00	11,587.83	20,180.01	11,919.05	146.48	145.96	-102.87	-8,455.30	526.19	1,486.39	1,199.62	286.77	5.183	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 25-36 State Fed Com Pad - Sioux 25-36 State Fed Com 7H (Well E) - ST01 - ST01 — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,900.00	11,589.47	20,281.00	11,918.99	148.06	147.55	-102.81	-8,556.29	526.30	1,485.22	1,195.28	289.94	5.122	
20,000.00	11,591.11	20,375.00	11,919.65	149.65	149.04	-102.78	-8,650.29	526.60	1,484.41	1,191.46	292.95	5.067	
20,054.00	11,592.00	20,418.15	11,920.83	150.50	149.73	-102.80	-8,693.42	526.82	1,484.30	1,189.92	294.38	5.042	
20,100.00	11,592.76	20,459.50	11,922.44	151.23	150.38	-102.84	-8,734.74	527.05	1,484.37	1,188.69	295.68	5.020	
20,200.00	11,594.40	20,561.35	11,927.17	152.81	152.00	-102.96	-8,836.48	527.59	1,484.66	1,185.93	298.73	4.970	
20,300.00	11,596.04	20,663.74	11,931.62	154.40	153.63	-103.06	-8,938.77	528.00	1,484.76	1,182.96	301.81	4.920	
20,400.00	11,597.68	20,761.59	11,935.86	155.98	155.19	-103.17	-9,036.53	528.40	1,484.87	1,180.09	304.79	4.872	
20,500.00	11,599.32	20,861.06	11,940.33	157.57	156.77	-103.28	-9,135.90	528.87	1,485.09	1,177.30	307.79	4.825	
20,600.00	11,600.96	20,960.46	11,944.46	159.16	158.35	-103.38	-9,235.21	529.31	1,485.21	1,174.40	310.81	4.779	
20,700.00	11,602.60	21,045.02	11,946.74	160.75	159.70	-103.41	-9,319.73	530.60	1,486.03	1,172.49	313.53	4.740	
20,800.00	11,604.24	21,142.68	11,948.91	162.35	161.26	-103.42	-9,417.34	532.79	1,487.45	1,170.86	316.59	4.698	
20,900.00	11,605.88	21,244.26	11,951.11	163.94	162.89	-103.43	-9,518.87	534.86	1,488.65	1,168.90	319.75	4.656	
21,000.00	11,607.52	21,326.16	11,952.83	165.53	164.20	-103.42	-9,600.71	537.28	1,490.72	1,168.31	322.40	4.624	
21,100.00	11,609.16	21,445.88	11,955.24	167.13	166.12	-103.42	-9,720.37	540.32	1,492.32	1,166.27	326.06	4.577	
21,200.00	11,610.80	21,548.70	11,957.20	168.73	167.76	-103.42	-9,823.15	542.58	1,493.64	1,164.37	329.26	4.536	
21,300.00	11,612.44	21,660.60	11,957.44	170.32	169.56	-103.35	-9,935.03	544.67	1,494.22	1,161.46	332.75	4.490	
21,400.00	11,614.08	21,762.49	11,955.93	171.92	171.19	-103.23	-10,036.89	546.50	1,494.35	1,158.28	336.06	4.447	
21,500.00	11,615.72	21,859.15	11,954.29	173.52	172.74	-103.10	-10,133.52	548.37	1,494.57	1,155.31	339.26	4.405	
21,600.00	11,617.36	21,955.82	11,952.71	175.12	174.29	-102.97	-10,230.15	550.46	1,495.05	1,152.60	342.45	4.366	
21,638.81	11,618.00	21,993.96	11,952.12	175.74	174.90	-102.92	-10,268.27	551.34	1,495.29	1,151.58	343.71	4.350	SF

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 36 State - Sioux 36 State 1H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 184-MWD — **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
14,200.00	11,495.96	11,577.00	11,538.20	64.15	40.14	91.26	-5,145.85	-1,168.36	2,295.28	2,212.28	83.01	27.651	
14,300.00	11,497.60	11,577.00	11,538.20	65.38	40.14	91.26	-5,145.85	-1,168.36	2,195.74	2,112.78	82.97	26.465	
14,400.00	11,499.24	11,577.00	11,538.20	66.63	40.14	91.26	-5,145.85	-1,168.36	2,096.25	2,013.32	82.92	25.279	
14,500.00	11,500.89	11,577.00	11,538.20	67.90	40.14	91.26	-5,145.85	-1,168.36	1,996.80	1,913.92	82.88	24.093	
14,600.00	11,502.53	11,577.00	11,538.20	69.18	40.14	91.26	-5,145.85	-1,168.36	1,897.41	1,814.59	82.83	22.908	
14,700.00	11,504.17	11,577.00	11,538.20	70.48	40.14	91.26	-5,145.85	-1,168.36	1,798.09	1,715.32	82.78	21.722	
14,800.00	11,505.81	11,577.00	11,538.20	71.79	40.14	91.26	-5,145.85	-1,168.36	1,698.85	1,616.13	82.72	20.536	
14,900.00	11,507.45	11,575.99	11,537.18	73.12	40.14	90.99	-5,145.87	-1,168.34	1,599.71	1,517.04	82.67	19.351	
15,000.00	11,509.09	11,575.52	11,536.72	74.46	40.14	90.87	-5,145.88	-1,168.33	1,500.68	1,418.06	82.62	18.165	
15,100.00	11,510.73	11,575.05	11,536.25	75.81	40.14	90.75	-5,145.89	-1,168.32	1,401.78	1,319.21	82.57	16.977	
15,200.00	11,512.37	11,574.59	11,535.78	77.18	40.13	90.62	-5,145.90	-1,168.32	1,303.05	1,220.52	82.53	15.789	
15,300.00	11,514.01	11,574.12	11,535.32	78.55	40.13	90.50	-5,145.91	-1,168.31	1,204.54	1,122.03	82.51	14.599	
15,400.00	11,515.65	11,573.65	11,534.85	79.94	40.13	90.37	-5,145.92	-1,168.30	1,106.29	1,023.76	82.52	13.406	
15,500.00	11,517.29	11,573.18	11,534.38	81.34	40.13	90.25	-5,145.93	-1,168.29	1,008.38	925.79	82.59	12.210	
15,600.00	11,518.93	11,572.71	11,533.91	82.74	40.13	90.12	-5,145.94	-1,168.28	910.93	828.18	82.75	11.009	
15,700.00	11,520.57	11,572.24	11,533.44	84.15	40.13	90.00	-5,145.95	-1,168.27	814.09	731.03	83.06	9.801	
15,800.00	11,522.21	11,571.77	11,532.97	85.58	40.12	89.87	-5,145.96	-1,168.27	718.12	634.47	83.65	8.585	
15,900.00	11,523.85	11,571.30	11,532.50	87.01	40.12	89.75	-5,145.97	-1,168.26	623.42	538.70	84.72	7.358	
16,000.00	11,525.49	11,570.83	11,532.03	88.45	40.12	89.62	-5,145.98	-1,168.25	530.67	443.99	86.68	6.122	
16,100.00	11,527.13	11,570.36	11,531.56	89.89	40.12	89.50	-5,145.99	-1,168.24	441.10	350.84	90.26	4.887	
16,200.00	11,528.77	11,569.89	11,531.09	91.34	40.12	89.37	-5,146.00	-1,168.23	357.11	260.32	96.79	3.690	
16,300.00	11,530.42	11,569.42	11,530.62	92.80	40.12	89.24	-5,146.01	-1,168.23	283.69	175.62	108.08	2.625	
16,400.00	11,532.06	11,568.95	11,530.15	94.27	40.11	89.12	-5,146.02	-1,168.22	231.16	107.16	124.00	1.864	Collision Risk Procedures Req.
16,485.18	11,533.45	11,568.54	11,529.74	95.52	40.11	89.01	-5,146.03	-1,168.21	214.88	80.17	134.70	1.595	Collision Risk Procedures Req., CC
16,500.00	11,533.70	11,568.47	11,529.67	95.74	40.11	88.99	-5,146.03	-1,168.21	215.38	79.81	135.57	1.589	Collision Risk Procedures Req., ES, SF
16,600.00	11,535.34	11,568.00	11,529.20	97.22	40.11	88.87	-5,146.04	-1,168.20	243.61	110.59	133.02	1.831	Collision Risk Procedures Req.
16,700.00	11,536.98	11,567.53	11,528.73	98.70	40.11	88.74	-5,146.05	-1,168.19	303.80	180.11	123.69	2.456	
16,800.00	11,538.62	11,567.05	11,528.25	100.19	40.11	88.61	-5,146.06	-1,168.18	381.12	265.84	115.28	3.306	
16,900.00	11,540.26	11,566.58	11,527.78	101.68	40.11	88.49	-5,146.07	-1,168.18	467.12	357.97	109.16	4.279	
17,000.00	11,541.90	11,566.10	11,527.30	103.18	40.10	88.36	-5,146.08	-1,168.17	557.81	452.97	104.84	5.321	
17,100.00	11,543.54	11,565.63	11,526.83	104.68	40.10	88.23	-5,146.09	-1,168.16	651.23	549.48	101.75	6.400	
17,200.00	11,545.18	12,694.89	12,157.32	106.19	43.84	158.31	-5,870.66	-1,190.11	658.83	569.52	89.31	7.377	
17,300.00	11,546.82	12,787.28	12,158.41	107.70	44.28	158.75	-5,962.82	-1,183.65	656.20	566.21	89.99	7.292	
17,400.00	11,548.46	12,877.54	12,160.64	109.22	44.76	159.11	-6,052.90	-1,178.61	655.29	564.50	90.78	7.218	
17,454.04	11,549.35	12,929.44	12,162.21	110.04	45.06	159.31	-6,104.71	-1,176.00	655.19	564.00	91.20	7.184	
17,500.00	11,550.10	12,973.21	12,163.59	110.74	45.32	159.46	-6,148.42	-1,174.05	655.27	563.69	91.58	7.155	
17,600.00	11,551.74	13,068.19	12,166.63	112.26	45.93	159.67	-6,243.31	-1,171.12	655.99	563.46	92.53	7.089	
17,700.00	11,553.38	13,164.67	12,170.60	113.79	46.59	159.94	-6,339.65	-1,167.85	657.45	564.01	93.44	7.036	
17,800.00	11,555.02	13,260.43	12,175.16	115.32	47.30	160.29	-6,435.21	-1,163.80	659.28	565.00	94.28	6.993	
17,900.00	11,556.66	13,355.24	12,179.85	116.85	48.03	160.43	-6,529.89	-1,162.25	662.14	566.79	95.35	6.945	
18,000.00	11,558.30	13,462.87	12,184.92	118.39	48.92	160.56	-6,637.39	-1,160.90	664.95	568.52	96.43	6.896	
18,100.00	11,559.94	13,567.81	12,187.26	119.93	49.81	160.39	-6,742.29	-1,162.20	666.21	568.36	97.85	6.809	
18,200.00	11,561.59	13,666.70	12,189.12	121.47	50.69	160.15	-6,841.14	-1,164.39	667.49	568.09	99.40	6.715	
18,300.00	11,563.23	13,770.24	12,191.14	123.02	51.66	159.94	-6,944.64	-1,166.16	668.69	567.74	100.94	6.625	
18,400.00	11,564.87	13,865.98	12,193.07	124.57	52.58	159.80	-7,040.35	-1,167.16	669.72	567.28	102.44	6.538	
18,500.00	11,566.51	13,962.91	12,195.89	126.12	53.55	159.71	-7,137.24	-1,167.84	671.47	567.57	103.91	6.462	
18,600.00	11,568.15	14,055.13	12,199.70	127.67	54.51	159.75	-7,229.38	-1,167.26	673.92	568.69	105.22	6.405	
18,700.00	11,569.79	14,176.36	12,204.50	129.23	55.80	159.93	-7,350.49	-1,165.00	675.84	569.43	106.41	6.351	
18,704.45	11,569.86	14,177.25	12,204.55	129.30	55.81	159.93	-7,351.37	-1,164.98	675.88	569.41	106.47	6.348	
18,800.00	11,571.43	14,263.12	12,207.96	130.79	56.76	160.19	-7,437.12	-1,161.70	677.03	569.53	107.49	6.298	
18,900.00	11,573.07	14,375.98	12,211.02	132.35	58.02	160.26	-7,549.90	-1,160.10	677.85	569.02	108.83	6.229	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 36 State - Sioux 36 State 1H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 184-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,000.00	11,574.71	14,477.46	12,212.05	133.91	59.18	160.15	-7,651.38	-1,160.36	677.66	567.25	110.41	6.137	
19,041.24	11,575.39	14,517.33	12,212.16	134.56	59.64	160.03	-7,691.23	-1,161.37	677.62	566.44	111.17	6.095	
19,100.00	11,576.35	14,574.60	12,212.00	135.48	60.31	159.74	-7,748.43	-1,164.07	677.70	565.29	112.41	6.029	
19,200.00	11,577.99	14,673.27	12,212.35	137.04	61.47	159.35	-7,847.04	-1,167.55	678.05	563.63	114.42	5.926	
19,300.00	11,579.63	14,769.20	12,213.14	138.61	62.62	159.04	-7,942.93	-1,170.36	678.66	562.31	116.36	5.833	
19,400.00	11,581.27	14,861.01	12,215.05	140.18	63.74	158.79	-8,034.68	-1,172.86	680.38	562.15	118.22	5.755	
19,500.00	11,582.91	14,958.65	12,217.76	141.76	64.95	158.49	-8,132.23	-1,176.17	683.01	562.81	120.20	5.682	
19,600.00	11,584.55	15,067.61	12,220.85	143.33	66.33	158.31	-8,241.13	-1,178.01	685.09	563.02	122.07	5.612	
19,700.00	11,586.19	15,203.21	12,221.12	144.91	68.07	158.09	-8,376.71	-1,178.83	684.51	560.50	124.01	5.520	
19,800.00	11,587.83	15,301.52	12,218.31	146.48	69.35	157.90	-8,474.97	-1,178.55	680.57	554.67	125.90	5.406	
19,900.00	11,589.47	15,405.42	12,215.54	148.06	70.71	157.75	-8,578.83	-1,177.70	676.63	548.88	127.75	5.297	
20,000.00	11,591.11	15,501.31	12,213.13	149.65	71.99	157.64	-8,674.68	-1,176.54	672.67	543.12	129.56	5.192	
20,100.00	11,592.76	15,591.81	12,211.97	151.23	73.21	157.60	-8,765.16	-1,175.20	669.76	538.48	131.28	5.102	
20,200.00	11,594.40	15,688.45	12,212.31	152.81	74.52	157.71	-8,861.77	-1,172.38	667.81	535.06	132.74	5.031	
20,300.00	11,596.04	15,789.92	12,212.83	154.40	75.91	157.85	-8,963.18	-1,169.18	665.92	531.76	134.16	4.964	
20,400.00	11,597.68	15,883.96	12,213.25	155.98	77.20	157.89	-9,057.20	-1,167.44	664.46	528.71	135.76	4.895	
20,500.00	11,599.32	15,981.47	12,214.46	157.57	78.55	157.99	-9,154.68	-1,165.09	663.54	526.29	137.24	4.835	
20,547.97	11,600.10	16,025.03	12,215.37	158.34	79.16	158.06	-9,198.20	-1,163.82	663.38	525.48	137.90	4.811	
20,600.00	11,600.96	16,073.29	12,216.67	159.16	79.84	158.14	-9,246.43	-1,162.58	663.56	524.94	138.62	4.787	
20,700.00	11,602.60	16,173.92	12,219.74	160.75	81.26	158.38	-9,346.96	-1,159.27	663.99	524.12	139.88	4.747	
20,800.00	11,604.24	16,269.72	12,222.87	162.35	82.62	158.55	-9,442.67	-1,156.85	664.91	523.69	141.23	4.708	
20,900.00	11,605.88	16,376.95	12,225.42	163.94	84.15	158.59	-9,549.87	-1,155.74	665.56	522.68	142.88	4.658	
21,000.00	11,607.52	16,483.21	12,225.76	165.53	85.67	158.41	-9,656.12	-1,156.46	664.91	519.99	144.92	4.588	
21,100.00	11,609.16	16,590.84	12,225.36	167.13	87.22	158.18	-9,763.74	-1,157.50	663.76	516.68	147.08	4.513	
21,200.00	11,610.80	16,688.24	12,223.28	168.73	88.62	157.83	-9,861.10	-1,159.49	661.38	511.92	149.46	4.425	
21,300.00	11,612.44	16,784.52	12,222.48	170.32	90.01	157.49	-9,957.35	-1,161.79	660.34	508.49	151.84	4.349	
21,359.57	11,613.42	16,837.00	12,222.04	171.28	90.77	157.33	-10,009.82	-1,162.72	659.65	506.47	153.18	4.306	
21,400.00	11,614.08	16,837.00	12,222.04	171.92	90.77	157.33	-10,009.82	-1,162.72	660.89	507.33	153.56	4.304	
21,500.00	11,615.72	16,837.00	12,222.04	173.52	90.77	157.33	-10,009.82	-1,162.72	674.43	521.41	153.02	4.407	
21,600.00	11,617.36	16,837.00	12,222.04	175.12	90.77	157.33	-10,009.82	-1,162.72	702.10	551.46	150.65	4.661	
21,638.81	11,618.00	16,837.00	12,222.04	175.74	90.77	157.33	-10,009.82	-1,162.72	716.32	566.97	149.35	4.796	

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 36 State - Sioux 36 State 5H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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
14,200.00	11,495.96	11,408.00	11,400.01	64.15	39.75	70.61	-5,132.52	-1,331.87	2,303.28	2,221.33	81.96	28.103	
14,300.00	11,497.60	11,408.00	11,400.01	65.38	39.75	70.61	-5,132.52	-1,331.87	2,204.88	2,122.97	81.91	26.919	
14,400.00	11,499.24	11,408.00	11,400.01	66.63	39.75	70.61	-5,132.52	-1,331.87	2,106.63	2,024.77	81.86	25.735	
14,500.00	11,500.89	11,408.00	11,400.01	67.90	39.75	70.61	-5,132.52	-1,331.87	2,008.55	1,926.73	81.82	24.548	
14,600.00	11,502.53	11,408.00	11,400.01	69.18	39.75	70.61	-5,132.52	-1,331.87	1,910.67	1,828.88	81.79	23.360	
14,700.00	11,504.17	11,408.00	11,400.01	70.48	39.75	70.61	-5,132.52	-1,331.87	1,813.02	1,731.24	81.78	22.171	
14,800.00	11,505.81	11,408.00	11,400.01	71.79	39.75	70.61	-5,132.52	-1,331.87	1,715.64	1,633.86	81.78	20.978	
14,900.00	11,507.45	11,408.00	11,400.01	73.12	39.75	70.61	-5,132.52	-1,331.87	1,618.58	1,536.76	81.82	19.783	
15,000.00	11,509.09	11,408.00	11,400.01	74.46	39.75	70.61	-5,132.52	-1,331.87	1,521.90	1,440.01	81.89	18.584	
15,100.00	11,510.73	11,408.00	11,400.01	75.81	39.75	70.61	-5,132.52	-1,331.87	1,425.68	1,343.65	82.03	17.381	
15,200.00	11,512.37	11,425.51	11,417.47	77.18	39.81	72.97	-5,133.75	-1,331.29	1,329.67	1,247.34	82.33	16.151	
15,300.00	11,514.01	11,429.19	11,421.13	78.55	39.83	73.47	-5,134.08	-1,331.13	1,234.53	1,151.86	82.68	14.932	
15,400.00	11,515.65	11,433.38	11,425.29	79.94	39.84	74.04	-5,134.48	-1,330.92	1,140.19	1,057.00	83.18	13.707	
15,500.00	11,517.29	11,438.20	11,430.08	81.34	39.86	74.71	-5,134.99	-1,330.67	1,046.84	962.92	83.92	12.474	
15,600.00	11,518.93	11,455.00	11,446.71	82.74	39.92	77.04	-5,137.09	-1,329.58	954.92	869.90	85.02	11.232	
15,700.00	11,520.57	11,455.00	11,446.71	84.15	39.92	77.04	-5,137.09	-1,329.58	864.40	777.87	86.52	9.990	
15,800.00	11,522.21	11,455.00	11,446.71	85.58	39.92	77.04	-5,137.09	-1,329.58	776.20	687.50	88.70	8.751	
15,900.00	11,523.85	11,469.68	11,461.17	87.01	39.97	79.11	-5,139.35	-1,328.34	691.00	599.21	91.79	7.528	
16,000.00	11,525.49	11,483.56	11,474.74	88.45	40.01	81.08	-5,141.84	-1,326.87	609.95	513.85	96.10	6.347	
16,100.00	11,527.13	11,502.00	11,492.62	89.89	40.07	83.73	-5,145.67	-1,324.46	534.72	432.80	101.91	5.247	
16,200.00	11,528.77	11,522.63	11,512.41	91.34	40.14	86.72	-5,150.56	-1,321.36	467.83	358.41	109.43	4.275	
16,300.00	11,530.42	11,549.00	11,537.45	92.80	40.23	90.60	-5,157.60	-1,317.00	412.99	294.81	118.18	3.495	
16,400.00	11,532.06	11,574.50	11,561.35	94.27	40.31	94.39	-5,165.31	-1,312.61	375.09	248.15	126.94	2.955	
16,500.00	11,533.70	11,611.51	11,595.48	95.74	40.43	99.88	-5,178.08	-1,306.19	358.84	226.45	132.39	2.711	
16,520.88	11,534.04	11,621.31	11,604.41	96.05	40.46	101.33	-5,181.72	-1,304.41	358.34	225.53	132.82	2.698	CC, ES, SF
16,600.00	11,535.34	11,665.86	11,644.31	97.22	40.61	107.78	-5,199.53	-1,295.75	365.14	233.25	131.89	2.769	
16,700.00	11,536.98	11,747.11	11,713.33	98.70	40.87	118.78	-5,238.09	-1,277.24	389.65	264.51	125.15	3.114	
16,800.00	11,538.62	11,888.59	11,814.48	100.19	41.32	133.82	-5,329.37	-1,241.31	421.20	308.74	112.47	3.745	
16,900.00	11,540.26	11,983.07	11,871.07	101.68	41.65	141.40	-5,401.07	-1,217.17	453.76	348.29	105.47	4.302	
17,000.00	11,541.90	12,162.38	11,954.98	103.18	42.34	151.94	-5,551.82	-1,170.74	481.02	386.46	94.56	5.087	
17,100.00	11,543.54	12,382.66	12,008.39	104.68	43.29	158.56	-5,760.08	-1,130.27	499.42	411.93	87.49	5.708	
17,200.00	11,545.18	12,510.90	12,012.71	106.19	43.92	161.09	-5,885.99	-1,106.54	494.82	408.81	86.01	5.753	
17,300.00	11,546.82	12,625.57	12,013.86	107.70	44.57	164.26	-5,996.73	-1,076.94	486.58	402.16	84.42	5.764	
17,400.00	11,548.46	12,721.66	12,014.89	109.22	45.20	167.82	-6,087.43	-1,045.26	477.96	394.89	83.07	5.753	
17,500.00	11,550.10	12,807.02	12,017.04	110.74	45.80	171.28	-6,167.41	-1,015.53	472.46	390.16	82.30	5.741	
17,600.00	11,551.74	12,895.90	12,020.34	112.26	46.48	174.42	-6,252.14	-988.93	470.88	388.65	82.22	5.727	
17,607.73	11,551.87	12,903.03	12,020.62	112.38	46.53	174.65	-6,259.01	-987.03	470.87	388.63	82.25	5.725	
17,700.00	11,553.38	12,991.83	12,024.20	113.79	47.24	177.21	-6,345.02	-965.26	471.57	388.79	82.78	5.697	
17,800.00	11,555.02	13,089.07	12,028.02	115.32	48.06	179.94	-6,439.33	-941.89	473.38	389.53	83.86	5.645	
17,900.00	11,556.66	13,194.47	12,031.67	116.85	48.99	-177.21	-6,541.77	-917.35	475.85	390.27	85.59	5.560	
18,000.00	11,558.30	13,302.93	12,033.11	118.39	49.99	-174.67	-6,647.93	-895.21	476.97	389.16	87.81	5.432	
18,100.00	11,559.94	13,400.19	12,033.59	119.93	50.92	-172.63	-6,743.53	-877.36	477.81	387.77	90.04	5.307	
18,200.00	11,561.59	13,494.82	12,034.96	121.47	51.85	-170.90	-6,836.88	-861.88	479.87	387.57	92.30	5.199	
18,300.00	11,563.23	13,590.34	12,037.71	123.02	52.81	-169.58	-6,931.55	-849.55	483.16	388.72	94.44	5.116	
18,400.00	11,564.87	13,686.37	12,041.96	124.57	53.79	-168.76	-7,027.10	-841.14	487.39	391.11	96.28	5.062	
18,500.00	11,566.51	13,789.42	12,047.49	126.12	54.85	-168.41	-7,129.89	-836.34	491.79	393.91	97.87	5.025	
18,600.00	11,568.15	13,897.75	12,052.85	127.67	55.97	-168.59	-7,238.07	-836.23	494.86	395.78	99.08	4.995	
18,700.00	11,569.79	13,996.87	12,057.68	129.23	57.00	-169.10	-7,337.03	-839.17	497.29	397.48	99.80	4.983	
18,800.00	11,571.43	14,097.35	12,062.72	130.79	58.08	-169.70	-7,437.31	-842.87	499.76	399.27	100.49	4.973	
18,900.00	11,573.07	14,197.50	12,067.48	132.35	59.17	-170.21	-7,537.31	-845.95	502.14	400.87	101.27	4.958	
19,000.00	11,574.71	14,300.47	12,072.31	133.91	60.33	-170.66	-7,640.13	-848.47	504.60	402.42	102.18	4.938	

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 Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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: Sioux 36 State - Sioux 36 State 5H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 24-MWD — **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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,100.00	11,576.35	14,416.26	12,075.51	135.48	61.65	-171.33	-7,755.78	-853.21	504.93	401.79	103.14	4.895	
19,200.00	11,577.99	14,521.98	12,075.57	137.04	62.88	-171.82	-7,861.43	-856.79	502.71	398.61	104.10	4.829	
19,300.00	11,579.63	14,615.05	12,075.68	138.61	63.98	-172.10	-7,954.48	-858.59	500.82	395.80	105.02	4.769	
19,400.00	11,581.27	14,713.08	12,076.94	140.18	65.18	-172.20	-8,052.50	-858.70	500.31	394.13	106.18	4.712	
19,500.00	11,582.91	14,811.58	12,078.24	141.76	66.40	-172.43	-8,150.99	-859.78	499.73	392.46	107.27	4.659	
19,534.45	11,583.48	14,844.52	12,078.89	142.30	66.80	-172.57	-8,183.90	-860.76	499.67	392.11	107.57	4.645	
19,600.00	11,584.55	14,904.22	12,080.53	143.33	67.55	-172.85	-8,243.56	-862.55	500.07	391.98	108.09	4.626	
19,700.00	11,586.19	15,000.27	12,084.32	144.91	68.76	-173.36	-8,339.46	-865.91	501.82	392.90	108.92	4.607	
19,800.00	11,587.83	15,112.67	12,088.50	146.48	70.16	-174.48	-8,451.44	-874.51	503.04	393.37	109.67	4.587	
19,900.00	11,589.47	15,212.07	12,090.61	148.06	71.40	-175.74	-8,550.31	-884.64	502.58	392.40	110.18	4.561	
20,000.00	11,591.11	15,324.14	12,091.76	149.65	72.81	-177.28	-8,661.66	-897.19	501.22	390.29	110.94	4.518	
20,090.80	11,592.60	15,403.49	12,092.47	151.08	73.82	-178.30	-8,740.58	-905.41	500.15	388.60	111.55	4.484	
20,100.00	11,592.76	15,411.70	12,092.63	151.23	73.92	-178.40	-8,748.75	-906.16	500.16	388.54	111.62	4.481	
20,200.00	11,594.40	15,519.54	12,093.87	152.81	75.33	-179.44	-8,856.28	-914.25	499.50	386.69	112.81	4.428	
20,300.00	11,596.04	15,622.47	12,094.31	154.40	76.70	179.79	-8,959.05	-920.04	498.28	384.22	114.06	4.369	
20,400.00	11,597.68	15,737.30	12,091.84	155.98	78.25	178.87	-9,073.63	-926.91	494.50	378.96	115.54	4.280	
20,500.00	11,599.32	15,838.51	12,088.32	157.57	79.62	178.13	-9,174.65	-932.16	489.53	372.63	116.91	4.187	
20,600.00	11,600.96	15,947.66	12,083.88	159.16	81.12	177.40	-9,283.59	-937.08	484.09	365.66	118.43	4.088	
20,700.00	11,602.60	16,058.22	12,076.32	160.75	82.66	176.62	-9,393.77	-942.16	475.87	355.85	120.02	3.965	
20,800.00	11,604.24	16,147.45	12,069.96	162.35	83.90	175.87	-9,482.64	-946.97	467.56	346.08	121.49	3.849	
20,900.00	11,605.88	16,236.00	12,066.25	163.94	85.15	175.38	-9,571.07	-949.74	462.04	339.13	122.92	3.759	
21,000.00	11,607.52	16,324.03	12,064.72	165.53	86.40	175.11	-9,659.07	-950.89	458.87	334.61	124.27	3.693	
21,100.00	11,609.16	16,417.68	12,065.46	167.13	87.75	174.99	-9,752.72	-950.89	458.08	332.46	125.62	3.646	
21,200.00	11,610.80	16,517.86	12,066.66	168.73	89.19	174.89	-9,852.89	-950.72	457.71	330.62	127.08	3.602	
21,284.53	11,612.19	16,600.33	12,067.73	170.08	90.39	174.91	-9,935.34	-949.76	457.41	329.17	128.24	3.567	
21,300.00	11,612.44	16,615.05	12,067.99	170.32	90.61	174.92	-9,950.06	-949.58	457.42	328.98	128.44	3.561	
21,400.00	11,614.08	16,710.26	12,070.26	171.92	92.00	175.01	-10,045.23	-948.07	458.11	328.37	129.73	3.531	
21,500.00	11,615.72	16,831.37	12,071.92	173.52	93.79	175.27	-10,166.27	-944.84	457.83	326.45	131.38	3.485	
21,589.11	11,617.18	16,905.00	12,070.73	174.95	94.87	175.40	-10,239.86	-942.90	455.07	322.72	132.35	3.438	
21,600.00	11,617.36	16,905.00	12,070.73	175.12	94.87	175.40	-10,239.86	-942.90	455.20	322.91	132.29	3.441	
21,638.81	11,618.00	16,905.00	12,070.73	175.74	94.87	175.40	-10,239.86	-942.90	457.78	326.00	131.78	3.474	

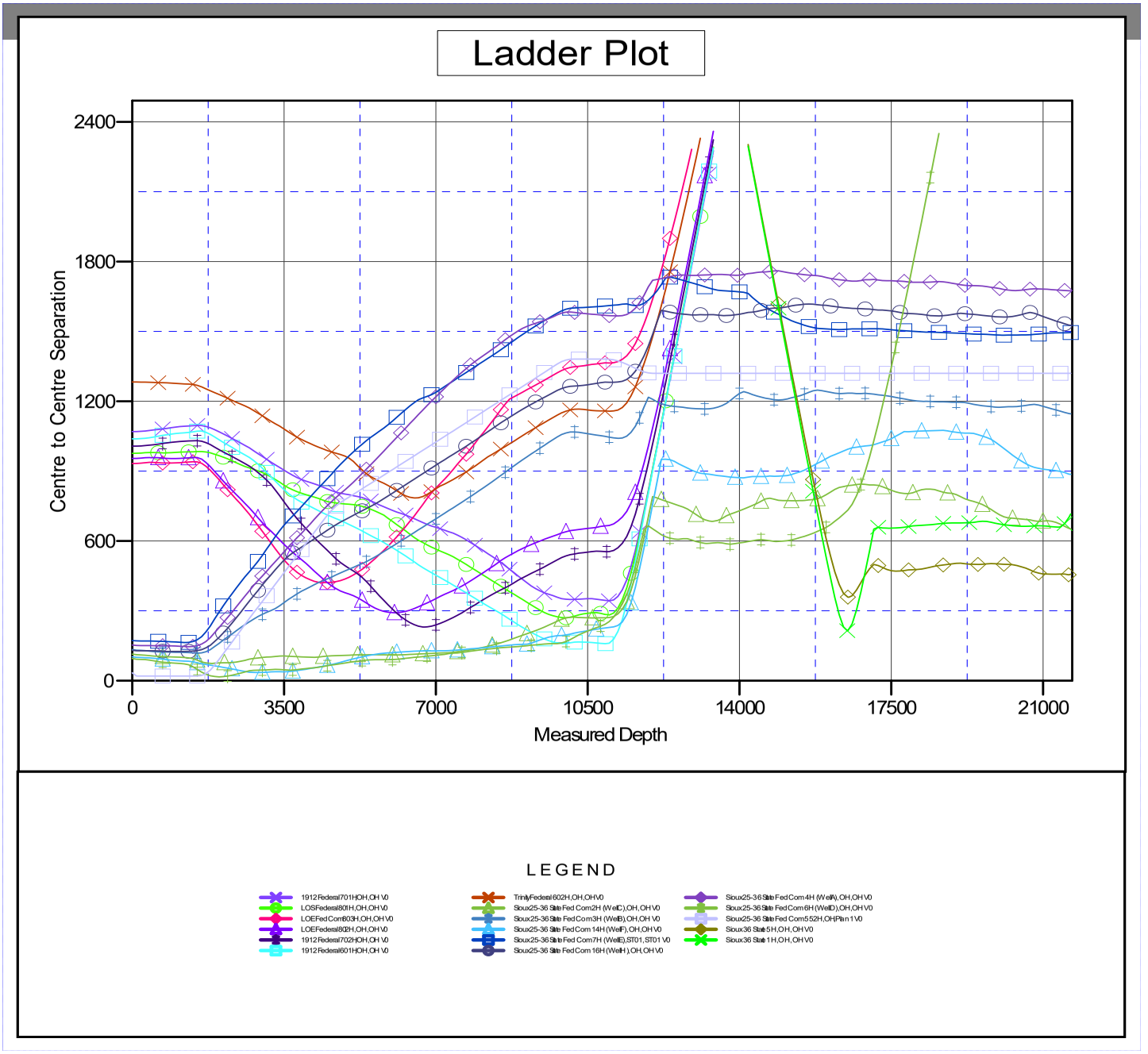
Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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 3086 + Est 25' KB @ 3128.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Sioux 25-36 State Fed Com 551H - Slot 551H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°



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

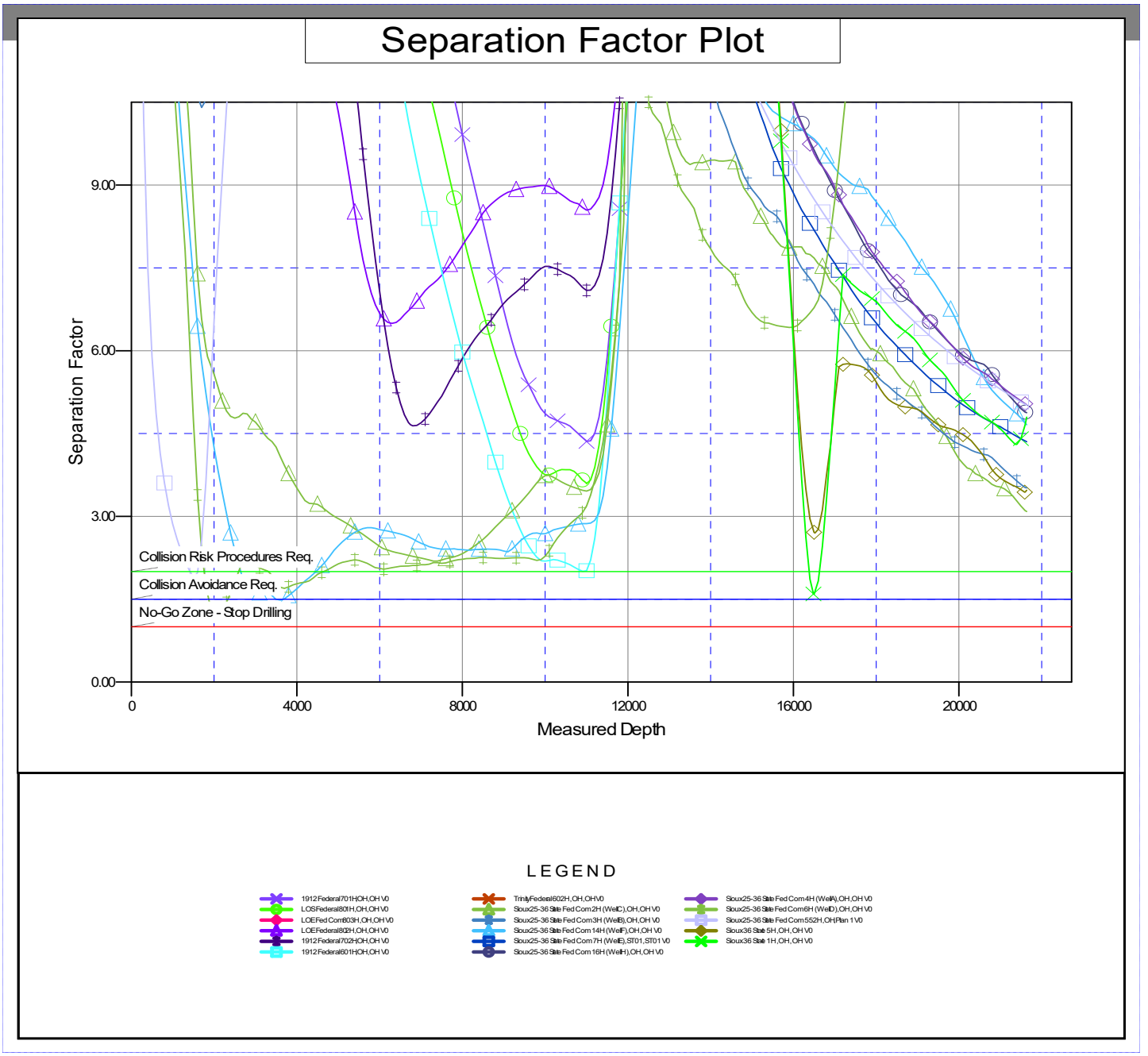
Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	**Local Co-ordinate Reference:**	Well Sioux 25-36 State Fed Com 551H - Slot 551H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Reference Site:	Sioux 25-36 State Fed Com Pad	**MD Reference:**	GL 3086 + Est 25' KB @ 3128.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Sioux 25-36 State Fed Com 551H	**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 3086 + Est 25' KB @ 3128.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Sioux 25-36 State Fed Com 551H - Slot 551H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°



Drilling Plan

Operator

3R Operating, LLC

Project Name

Sioux 25-36 State Fed Com 551H

SHL: 179' FNL & 1,660' FWL of Section 25-25S-35E, Lea County, NM

BHL: 100′ FSL & 660' FWL of Section 36-25S-35E, Eddy County, NM

Prepared By

Austin Tramell

Please address any questions, inquiries, or deficiency statements to Austin Tramell address below:

3R Operating, LLC
20405 State Hwy 249 STE 820
Houston, TX 77070

1.0 Estimated Formation Tops

Formation	Depth	Primary Lithology	Primary Mineral Resources
Rustler	Surface	Anhydrite	Usable Water
Salado	1,573’	Salt	None
Delaware	2,753’	Sandstone	None
Bone Spring	8,833’	Limestone	Oil & Gas
1st Bone Spring Sand	9,993’	Sandstone	Oil & Gas
2nd Bone Spring Carb	10,163’	Limestone	Oil & Gas
2nd Bone Spring Sand	10,233’	Sandstone	Oil & Gas
3rd Bone Spring Carb	10,713’	Limestone	Oil & Gas
3rd Bone Spring Sand	11,613	Sandstone	Oil & Gas

Total Depth and Target Formation **Total**
Vertical Depth (ft): 11,618 **Total**
Measured Depth (ft): 21,629 **Target**
Formation: 3rd Bone Spring Carb

2.0 Estimated Depths of Oil & Gas

Substance	Depth (ft)
Top of Hydrocarbons	8,833’
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	1,100	13.375	54.50	J-55	STC	NEW	17.5
Inter.	4,900	9.625	40	J-55	BTC	NEW	12.25
Prod.	21,639	5.5	23	P-110	Talon HTQ	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	1,100	1,100	54.5	J-55	1,130	2,730	853,000	514,000
Inter.	4,900	4,900	40	J-55	2,570	3,950	630,000	714,000
Prod.	11,618	21,639	23	P-110	16,470	16,500	829,000	803,000

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	600	13.50	1.79	100	834	466
Sur. Tail	600	1,100	14.80	1.33	100	695	522

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	4,400	12.70	1.53	50	2,117	1,383
Int. Tail	4,400	4,900	14.80	1.33	50	260	196

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	10,445	10.70	3.34	15	2,886	864
Prod,. Tail	10,445	21,639	13.50	1.54	15	3,250	2,110

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 V1AClass C

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	1,100	FW	9.2	8.4	32-36	0.75	NC
Inter.	1,100	4,900	FW	8.6	8.4	28-30	0.75	NC
Prod.	4,900	21,639	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	5.55	2.30	14.23	8.57
Inter.	1.8	2.35	3.64	3.21
Prod.	2.84	2.84	3.01	3.10

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 10,445 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 Temperature:	195	degrees F
Maximum Bottom Hole Pressure:	8,457	psi

Casing Program: **RRR-Sioux 25 36 State Fed Com 551H - 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'	1,100'	1,100'	13 3/8"	54.50	J-55	STC	New	8.6	2730	5.55	1130	2.30	514,000	59,950	8.57	853,000	59,950	14.23
Intermediate																			
12.25"	0'	4,900'	4,900'	9 5/8"	40	J-55	BTC	New	8.6	3950	1.80	2570	2.35	630,000	196,000	3.21	714,000	196,000	3.64
Production																			
8.75"	0'	21,639'	11,618'	5 1/2"	23	P-110	Talon HTQ	New	9.6	14520	2.50	14520	2.50	724,000	267,214	2.71	729,000	267,214	2.73

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

U. S. Steel Tubular Products

4/29/2025 3:11:47 PM

5.500" 23.00lb/ft (0.415" Wall) P110 HP USS-TALON HTQ™ RD

MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	125,000	--	psi	--
Maximum Yield Strength	140,000	--	psi	--
Minimum Tensile Strength	130,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Minimum Collapse Pressure	16,470	16,470	psi	--
Minimum Internal Yield Pressure	16,500	16,500	psi	--
Minimum Pipe Body Yield Strength	829,000	--	lb	--
Joint Strength	--	803,000	lb	--
Compression Rating	--	803,000	lb	--
Reference Length	--	23,280	ft	[5]
Maximum Uniaxial Bend Rating	--	100.9	deg/100 ft	[3]
MAKE-UP DATA	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	22,500	ft-lb	[4]
Maximum Make-Up Torque	--	25,500	ft-lb	[4]
Maximum Operating Torque	--	44,700	ft-lb	[4]

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bend rating shown is structural only.
4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
6. Coupling must meet minimum mechanical properties of the pipe.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: 3R Operating, LLC **OGRID:** 331569 **Date:** 07 / 14 / 2025

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

If Other, please describe: APD Sundry Change

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See attachment						

IV. Central Delivery Point Name: Sioux 25-36 Production Facility [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See Attachment						

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	Austin Tramell
Printed Name:	Austin Tramell
Title:	Director Environmental & Regulatory
E-mail Address:	atramell@3roperating.com
Date:	07/14/2025
Phone:	832-810-1037

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. Separation Equipment

Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing modeling software to ensure adequate capacity for anticipated production volumes and conditions. Production composition and the volumes will be utilized as inputs to a process model which predicts relative amounts of gas, oil and water throughout the process. The high-volume case will be used to size equipment, piping and instrumentation.

Each well has a dedicated 3-phase separator and gas from that separator is taken directly to gas sales. Facility piping and pipeline will be sized to allow peak volumes to flow with minimal pressure loss and deliver to the midstream gatherer at an acceptable pressure. Water will be conveyed directly to tankage. Oil from 3-phase separators will be conveyed to a heated separator for enhanced liquid-liquid separation and degassing. Vapors from the heater treater are routed to flare. Oil and water storage tanks vapor outlets utilize a closed vent vapor system to ensure all working & breathing and flashing losses are routed to the flare which is sized to accommodate peak expected production volume. Flash volumes are estimated using the high-volume case.

VII. Operational Practices

The operator will ensure pipeline connectivity before producing hydrocarbons and will operate a closed vent vapor capture system that is designed to capture all associated and evolved gas during normal operation. Venting will only occur during maintenance activities or equipment failure. The operator may utilize the following from Section 3 for its operations to minimize flaring:

A. The operator will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. The operator will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, compression will be added to deliver volumes that are produced. Well production may also be curtailed to manage the flow of gas and not overrun compression.

B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations.

C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards; however, if natural gas does not meet gathering pipeline quality specifications, the operator will flare the natural gas for up to 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. The operator will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.

D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(l) through (4). If there is no adequate takeaway for the separator gas, well(s) will be curtailed until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be measured using a total flow meter and reported appropriately.

E. The operator will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(l) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. The operator will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. The operator will install equipment to measure the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-

pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, the operator will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. Best Management Practices

The operator utilizes automated engineering controls included in facility design to minimize venting and flaring. Additionally, operator's SOP support the minimization of flare and venting.

If the main gas outlet becomes unavailable and pressure increases on the outlet sales line, produced gas will be routed directly to the facility flare. The facility control system will alert personnel to the need for maintenance and appropriate response to the temporary flaring event. The facility design includes a closed vent vapor capture system to route flash from the heater treater and tanks to the flare. For maintenance activities, the operator will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting.

XIV. Confidentiality

Uniqueness and variability of the formation encountered for this well is such that the Operator requests confidentiality in order to protect its proprietary data. After the responsible agency has conducted its review, the Operator requests the following information be REDACTED from the approved and posted permit(s), including anticipated production volumes and the Operator's planned development schedule. This information is expected to remain private between the submitting operator and the reviewing agency only.

III. Wells

Well Name	Legal Description	API	Anticipated Initial Oil Production BBL/D	Anticipated Initial Gas MCF/D	Anticipate Produced Water BBL/D
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Well Name	Anticipated Oil Prod. after 3 years BBL/D	Anticipated Gas Prod. after 3 years MCF/D	
[redacted]	[redacted]	[redacted]	See provided decline curve on next page for estimated production volumes over 36 months.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flowback Date	First Production Date
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr. Suite 190
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: gates.com/ollandgas

CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were assembled at **Gates Engineering & Services North America** facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet requirements of API Spec 16C, 3rd Edition.

CUSTOMER:	A-7 AUSTIN INC DBA AUSTIN HOSE
CUSTOMER P.O.#:	00620920 (MENA REF# 01LB10050, 01-012870, HOSE BATCH NO. 120463-07/20)
CUSTOMER P/N:	16C3.035.0CK4116FX-FLTSC/S
PART DESCRIPTION:	3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS ATTACHED
SALES ORDER #:	522832
QUANTITY:	1
SERIAL #:	F-041522-1

SIGNATURE: _____

TITLE: QUALITY ASSURANCE

DATE: 8/15/2022

DRIVEN BY POSSIBILITY™

GATES ENGINEERING & SERVICES FZCO
MENA HEADQUARTERS
JEBEL ALI FREE ZONE, P. O. BOX 61046
DUBAI, UNITED ARAB EMIRATES
T: +971 4 886 1414
F: +971 4 886 1413
GATES.COM

جيتس للهندسة و الخدمات ش م ح
المقر الرئيسي للشرق الأوسط و شمال أفريقيا
جبل علي المنطقة الحرة، ص. ب. ٦١٠٤٦
دبي، الامارات العربية المتحدة
هاتف: ٨٨٦ ١٤١٤ ٤ ٩٧١+
فاكس: ٨٨٦ ١٤١٣ ٤ ٩٧١+
GATES.COM

PRESSURE TEST CERTIFICATE

Certificate #	01-012870	Test Date	15-Apr-2022
Customer Name	GATES E & S NORTH AMERICA INC		
Customer Ref. #	1786392/ 2	Gates Ref. #	01CCLBSOA-10007
Gates Job #	01LB10050		
Product Description	3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE		
Part #	RAB000884-23	Quantity	1
Assembly Code / Serial No.	F-041522-1	Hose Batch No.	120463-07/20
Working Pressure	10000 PSI	Test Pressure	15000.0 PSI
Medium	Water	Duration	1 HOUR
Ref. Specifications			
Observation	No Leakage or Pressure Drop observed under testing condition.		

Gates Engineering & Services certifies that the hose has been assembled, inspected and tested as per Gates Technical Specification. The hose assembly has successfully passed the 60 minutes hydrostatic test as per as per API Spec 16C standard, 3rd edition, March 2021.

Pr. Gauage Sr.#	288223022	Calibrn. Exp.Date	13-Jul-2022
Chart Recorder Sr.#	11.02117.1-01	Calibrn. Exp.Date	13-Jul-2022

Reviewed By		Witnessed By
Clifford G	GATES ENGINEERING & SERVICES FZCO P. O. BOX 61046, JEBEL ALI, DUBAI, UAE	Siva Mahalingam
Supervisor / 15-Apr-2022		Operations / Quality Lead /15-Apr-2022

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جيتس للهندسة و الخدمات ش م ح
المقر الرئيسي للشرق الأوسط و شمال أفريقيا
جبل علي المنطقة الحرة، ص. ب. ٦١٠٤٦
دبي، الامارات العربية المتحدة
هاتف: ٨٨٦ ١٤١٤ ٤ ٩٧١+
فاكس: ٨٨٦ ١٤١٣ ٤ ٩٧١+
GATES.COM

CERTIFICATE OF CONFORMANCE

Certificate #	01-012870	Date	15-Apr-2022
Customer Name	GATES E & S NORTH AMERICA INC		
Customer Ref. #	1786392/ 2	Gates Ref. #	01CCLBSOA-10007

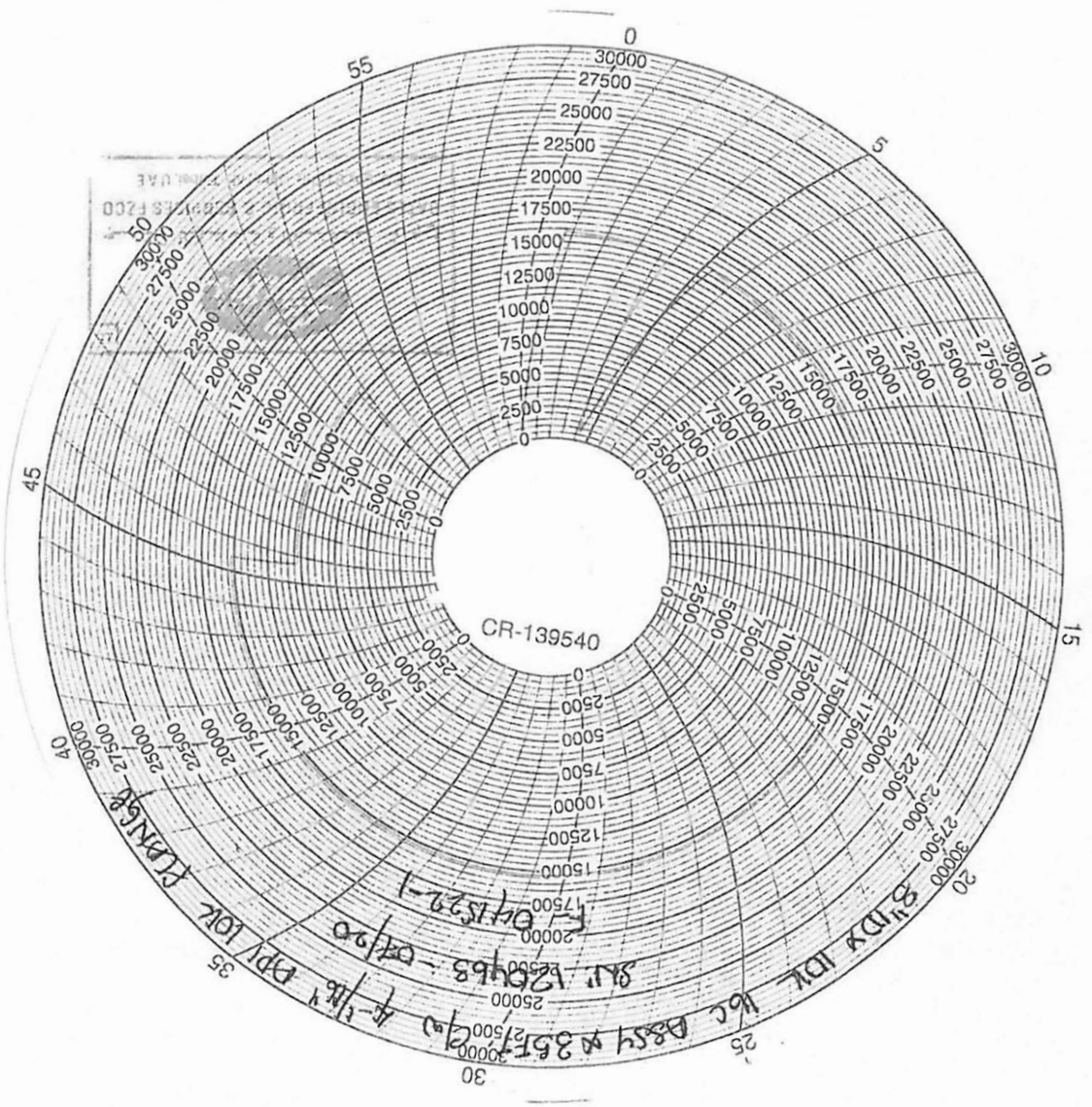
Gates Engineering & Services certifies that the hose has been assembled, inspected and tested as per Gates Technical Specification. The hose assembly has successfully passed the 60 minutes hydrostatic test as per as per API Spec 16C standard, 3rd edition, March 2021.

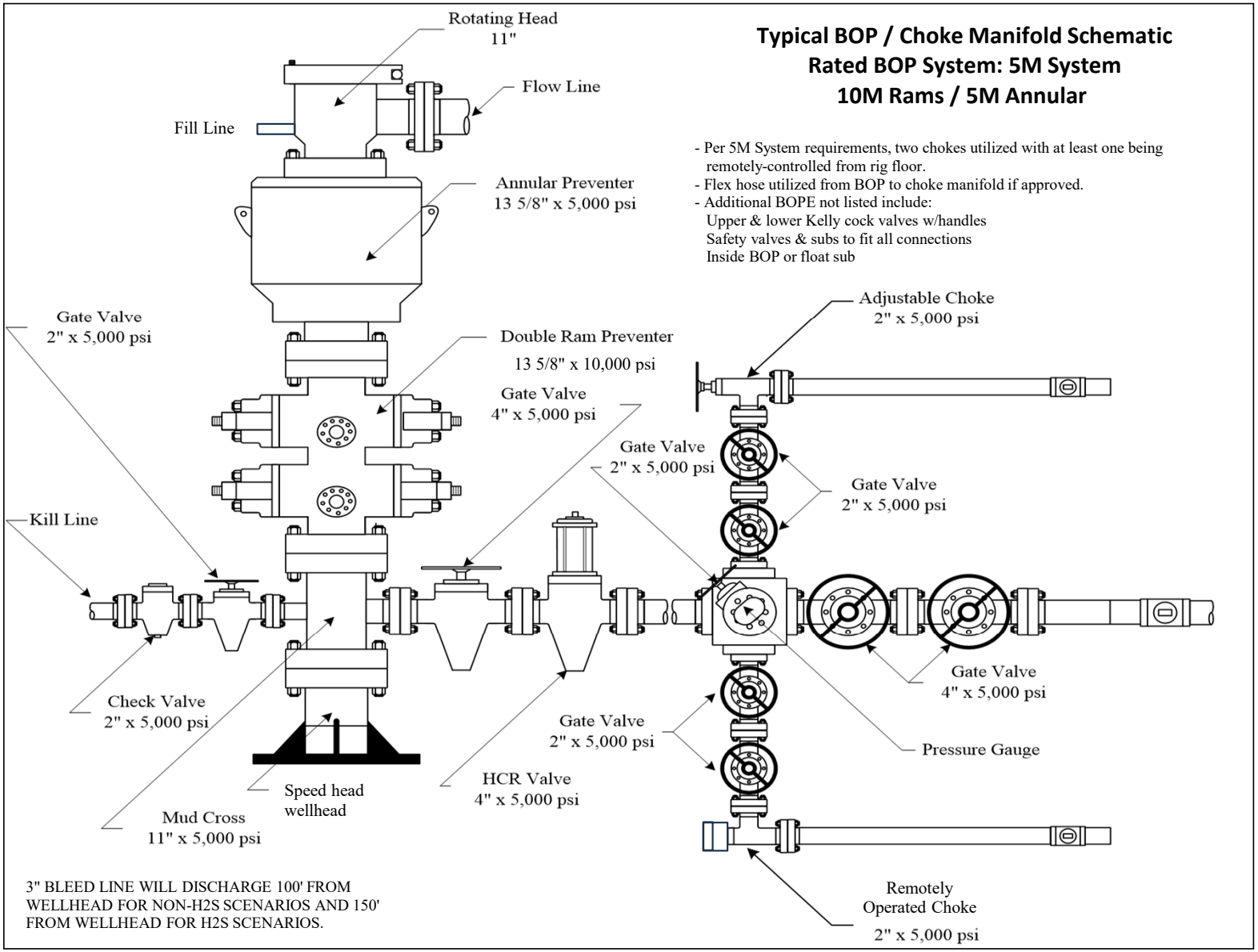
Item Code	Product Description	Quantity
RNB-30E-16C-4F3T2-FG	3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE Hose Batch No. 120463-07/20 Assembly Code / Serial No. F-041522-1 Gates Job # 01LB10050	1

جيتس للهندسة و الخدمات ش م ح
GATES ENGINEERING & SERVICES FZCO
P. O. BOX 61046, JEBEL ALI, DUBAI, UAE

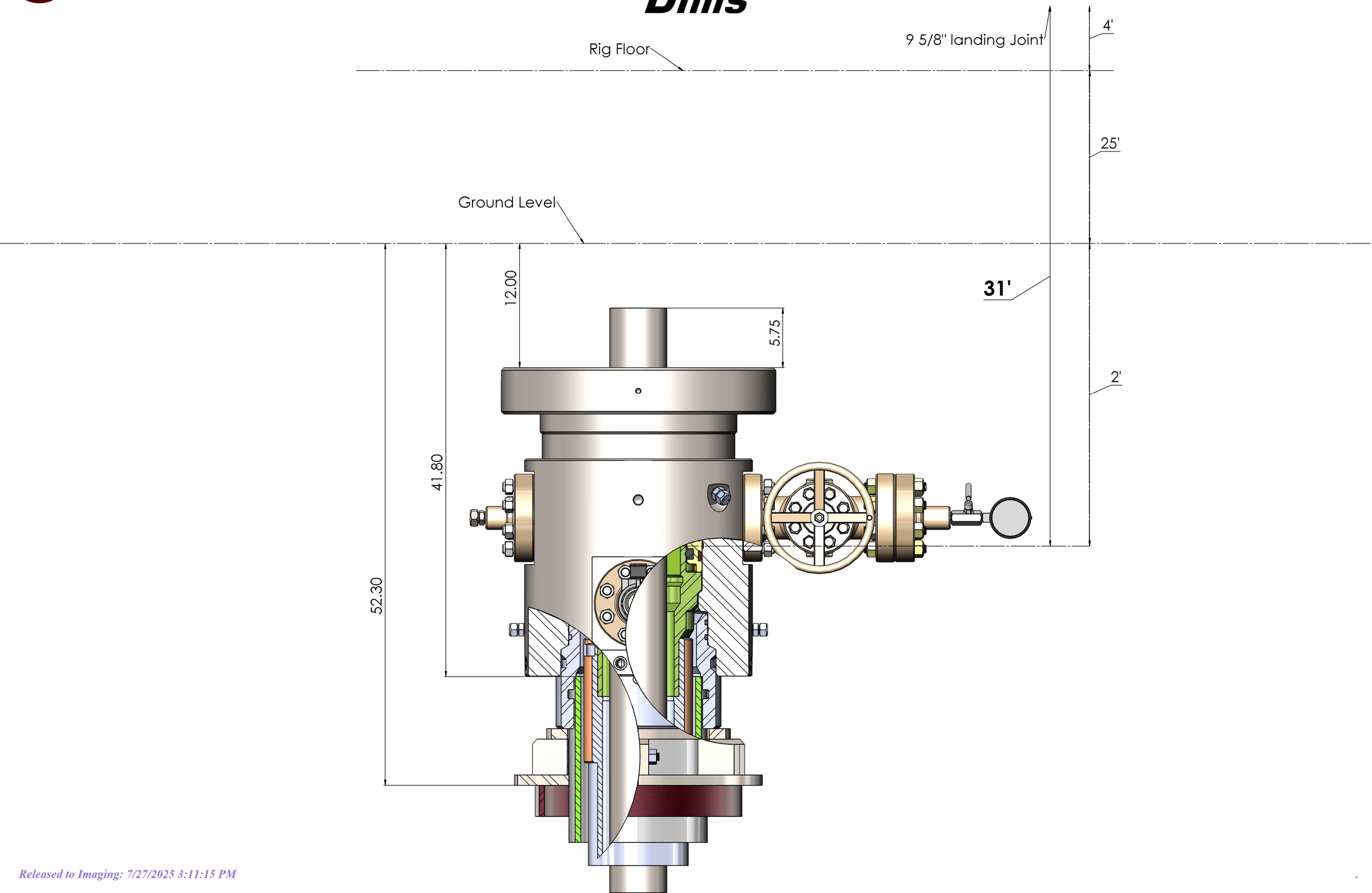
15-Apr-2022
Date

Sajid Rasheed
QHSE Manager


CR-139540



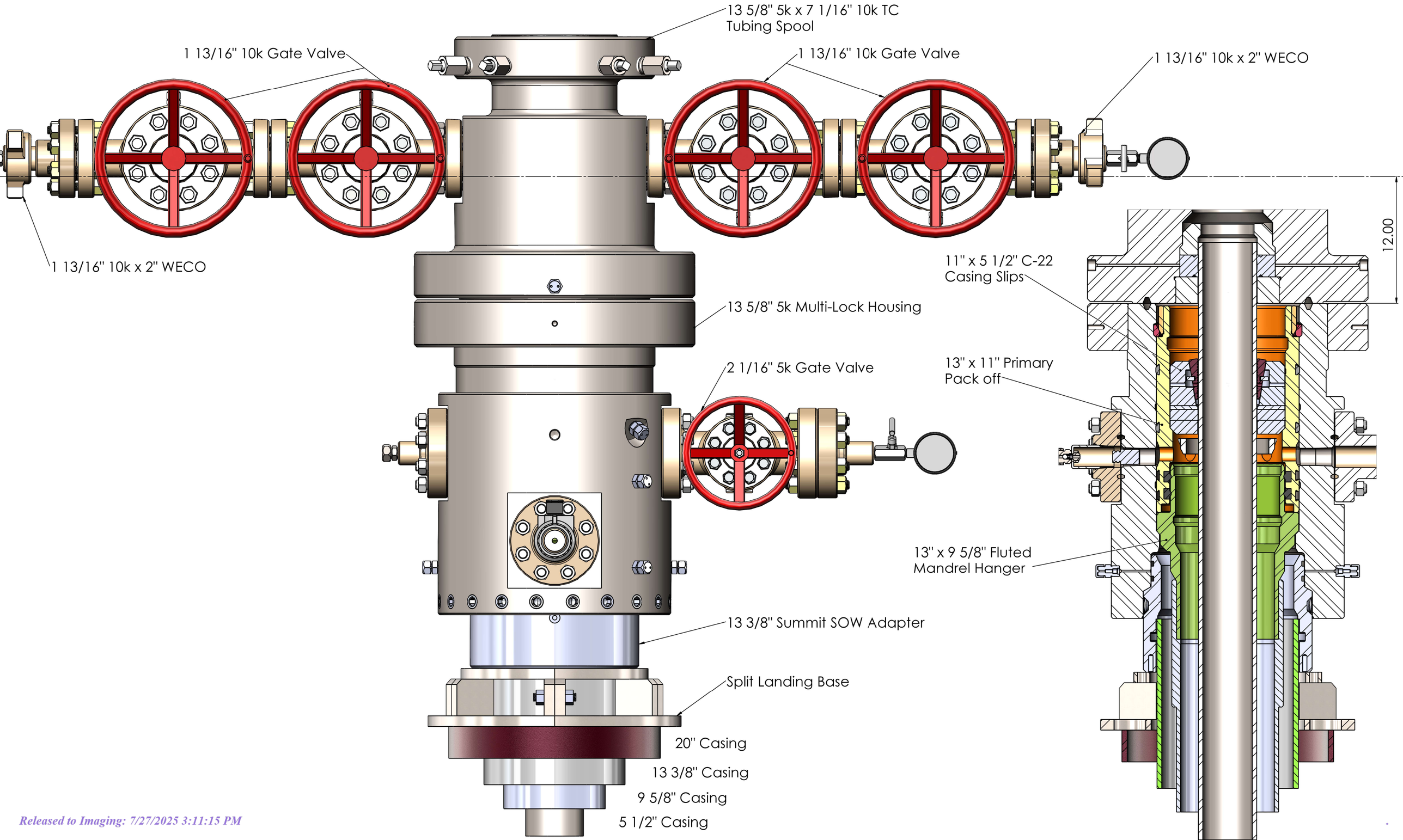
13 5/8" 5k Multi-Lock Dims



13 5/8" 5k Multi-Lock

ATLAS

3R Operating, LLC



3R Operating, LLC

Physical: 20405 State Highway 249
Ste 820
Houston, TX 77070
Mailing Address: P.O. Box 692229
Houston, TX 77269-2230

Please see attached BLM Approved APD change.

Note there is an additional C-102 attached to the application that has the lateral portion of the welling shifting 150' to the East of the one approved in the BLM APD Sundry. BLM did not require a Sundry moving the well 150' East due to being in the same quarter/quarter of the proposed well.

I spoke with Ward regarding this and he instructed me to highlight that and attach to the APD change submission.

Please let me know if you have any questions.

Thanks

Austin Tramell

Director Environmental & Regulatory

atramell@3roperating.com

575-499-4919

C-102

Submit Electronically
Via OCD Permitting

State of New Mexico
Energy, Minerals, & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024
PAGE 1 OF 2

Submittal Type: ☐ Initial Submittal ☑ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-51570	97088	WC-025 G-08 S253534O; BONE SPRING

Property Code	Property Name	Well Number
~~317657~~ 337270	SIOUX 25-36 STATE FED COM	551H

OGRID No.	Operator Name	Ground Level Elevation
331569	3R OPERATING LLC	3086'

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 (NAD83)	Longitude (NAD83)	County
C	25	25S	35E		179' FNL	1660' FWL	32.10812486	-103.32441946	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
M	36	25S	35E		100' FSL	810' FWL	32.07984716	-103.32717058	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320.00	defining well		Y	C

Order Numbers: pending orders
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 (NAD83)	Longitude (NAD83)	County
D	25	25S	35E		50' FNL	810' FWL	32.10847580	-103.32716533	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
D	25	25S	35E		100' FNL	810' FWL	32.10833836	-103.32716523	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
M	36	25S	35E		100' FSL	810' FWL	32.07984716	-103.32717058	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type: ☒ Horizontal ☐ Vertical	Ground Floor Elevation
AUI		3086'

OPERATOR CERTIFICATIONS

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

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

Austin Tramell 07/23/2025
Signature Date

Austin Tramell
Printed Name

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.

JOHN M RUSSELL NEW MEXICO 29049 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
29049	JULY 22, 2025

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

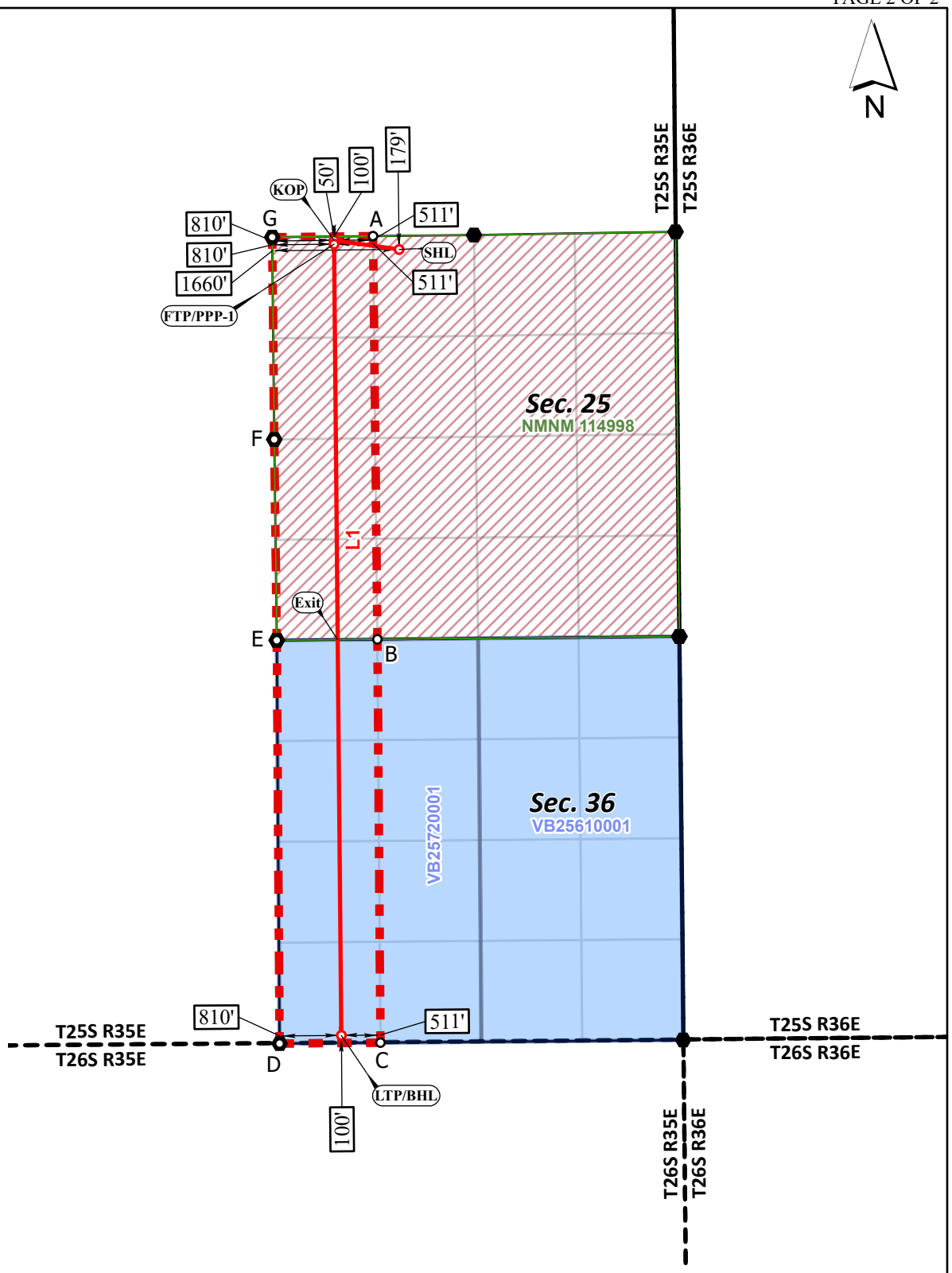
SIOUX 25-36 STATE FED COM 551H

SHL
FNL 179' FWL 1660', SECTION 25
NAD 83, SPCS NM EAST
X:853728.26' / Y:404534.23'
LAT:32.10812486 / LON:-103.32441946
NAD 27, SPCS NM EAST
X:812540.99' / Y:404476.02'
LAT:32.10799799 / LON:-103.32395727

KOP
FNL 50' FWL 810', SECTION 25
NAD 83, SPCS NM EAST
X:852876.82' / Y:404653.96'
LAT:32.10847580 / LON:-103.32716533
NAD 27, SPCS NM EAST
X:811689.57' / Y:404595.74'
LAT:32.10834895 / LON:-103.32670302

FTP/PPP-1
FNL 100' FWL 810', SECTION 25
NAD 83, SPCS NM EAST
X:852877.32' / Y:404603.96'
LAT:32.10833836 / LON:-103.32716523
NAD 27, SPCS NM EAST
X:811690.07' / Y:404545.75'
LAT:32.10821152 / LON:-103.32670293

LTP/BHL
FSL 100' FWL 810', SECTION 36
NAD 83, SPCS NM EAST
X:852972.38' / Y:394238.90'
LAT:32.07984716 / LON:-103.32717058
NAD 27, SPCS NM EAST
X:811784.72' / Y:394180.97'
LAT:32.07972019 / LON:-103.32670973



*FTP TO LTP LINE BEARINGS

LINE	BEARING
L1	S 00°31'32" E ~ 10365.50'

*FTP TO LTP LEASE DISTANCES

TRACT	DISTANCE
NMNM 114998	5181.82'
TOTAL	5181.82'

CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 853387.56' / Y:404709.54'	A - X: 812200.31' / Y:404651.32'
B - X: 853444.12' / Y:399427.25'	B - X: 812256.66' / Y:399369.17'
C - X: 853484.39' / Y:394143.43'	C - X: 812296.71' / Y:394085.50'
D - X: 852163.12' / Y:394131.73'	D - X: 810975.46' / Y:394073.81'
E - X: 852126.01' / Y:399414.84'	E - X: 810938.57' / Y:399356.77'
F - X: 852092.71' / Y:402045.65'	F - X: 810905.37' / Y:401987.51'
G - X: 852066.38' / Y:404695.10'	G - X: 810879.14' / Y:404636.89'

DELTA FIELD SERVICES

Drill Line Events | Section Corners | Drill Line | Dimension Lines | Federal Leases | NMSLO | HSU | HSU Corners

JOB No. 20251134
REV 2 NDS 7/22/2025

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

Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.99987673 and a Convergence Angle: 0.53882500°

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

Operator:	OGRID:
3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	331569
	Action Number: 488781
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.	7/27/2025
matthew.gomez	Property code is now 337270.	7/27/2025
matthew.gomez	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	7/27/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	7/27/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	7/27/2025
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	7/27/2025