AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed: 10/15/2025 04:44 PM

APD ID:	10400105550	Well Status:	AAPD
APD Received Date:	08/07/2025 09:49 AM	Well Name:	RIVERBEND 12-13 FEDERAI
Operator:	CIMAREX ENERGY COMPANY OF	Well Number:	8H

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 2 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 10 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 2 file(s)
  -- Hydrogen sulfide drilling operations plan: 2 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 12 file(s)
  -- Other Facets: 6 file(s)
  -- Other Variances: 4 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 2 file(s)
  -- Attach Well map: 2 file(s)
  -- Production Facilities map: 2 file(s)
  -- Water source and transportation map: 2 file(s)
  -- Well Site Layout Diagram: 2 file(s)
  -- Recontouring attachment: 2 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments

CONFIDENTIAL

-- None

Form 3160-3
(October 2024)

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2027

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM16104

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: RIVERBEND 12-13 FEDERAL COM 8H

2. Name of Operator: CIMAREX ENERGY COMPANY OF COLORADO

9. API Well No.: 30-015-57622

3a. Address: 6001 DEAUVILLE BLVD STE 300N, MIDLAND, TX 79706

3b. Phone No. *(include area code)*: (432) 620-1936

10. Field and Pool, or Exploratory: WILLOW LAKE/BONE SPRING, SOUTHE

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SESW / 1147 FSL / 2362 FWL / LAT 32.155149 / LONG -104.041828

At proposed prod. zone: SESE / 100 FSL / 338 FEL / LAT 32.122953 / LONG -104.033403

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 1/T25S/R28E/NMP

14. Distance in miles and direction from nearest town or post office*: 5 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 330 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 640.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 20 feet

19. Proposed Depth: 8887 feet / 20266 feet

20. BLM/BIA Bond No. in file: FED: NMB001188

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 2934 feet

22. Approximate date work will start*: 12/30/2025

23. Estimated duration: 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	CRYSTAL DENSON / Ph: (432) 620-1936	08/07/2025

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	10/07/2025

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/07/2025

Confidential

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

(Continued on page 3)

Approval Date: 10/07/2025

Confidential

Additional Operator Remarks

Location of Well

0. SHL: SESW / 1147 FSL / 2362 FWL / TWSP: 25S / RANGE: 28E / SECTION: 1 / LAT: 32.155149 / LONG: -104.041828 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 338 FEL / TWSP: 25S / RANGE: 28E / SECTION: 12 / LAT: 32.151585 / LONG: -104.033372 (TVD: 8887 feet, MD: 9478 feet)

BHL: SESE / 100 FSL / 338 FEL / TWSP: 25S / RANGE: 28E / SECTION: 13 / LAT: 32.122953 / LONG: -104.033403 (TVD: 8887 feet, MD: 20266 feet)

BLM Point of Contact

Name: JANET D ESTES
Title: ADJUDICATOR
Phone: (575) 234-6233
Email: JESTES@BLM.GOV

CONFIDENTIAL

Riverbend 12-13 FEDERAL COM 8H

APD - Geology COAs (Not in Potash or WIPP)

- For at least one well per pad (deepest well within initial development preferred) the record of the drilling rate (ROP) along with the Gamma Ray (GR) and Neutron (CNL) well logs run from TVD to surface in the vertical section of the hole shall be submitted to the BLM office as well as all other logs run on the full borehole 30 days from completion. Any other logs run on the wellbore, excluding cement remediation, should also be sent. Only digital copies of the logs in .TIF or .LAS formats are necessary; paper logs are no longer required. Logs shall be emailed to blm-cfo-geology@doimspp.onmicrosoft.com. Well completion report should have .pdf copies of any CBLs or Temp Logs run on the wellbore.

- Exceptions: In areas where there is extensive log coverage (in particular the salt zone adjacent to a pad), Operators are encouraged to contact BLM Geologists to discuss if additional GR and N logs are necessary on a pad. Operator may request a waiver of the GR and N log requirement due to good well control or other reasons to be approved by BLM Geologist prior to well completion. A waiver approved by BLM must be attached to completion well report to satisfy COAs.

- The top of the Rustler, top and bottom of the Salt, and the top of the Capitan Reef (if present) are to be recorded on the Completion Report.

Be aware that:

- No H2S has been reported within one mile of the proposed project.

Questions? Contact Thomas Evans, BLM Geologist at 575-234-5965 or tvevans@blm.gov

PECOS DISTRICT

SURFACE USE

CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CIMAREX ENERGY COMPANY OF COLORADO
LEASE NO.:	NMNM16104
COUNTY:	Eddy County, New Mexico

Wells:

RIVERBEND 12-13 FEDERAL COM 3H

RIVERBEND 12-13 FEDERAL COM 4H

RIVERBEND 12-13 FEDERAL COM 5H

RIVERBEND 12-13 FEDERAL COM 6H

RIVERBEND 12-13 FEDERAL COM 7H

RIVERBEND 12-13 FEDERAL COM 8H

Approval Date: 10/07/2025

TABLE OF CONTENTS

1. GENERAL PROVISIONS 4
1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES 4
1.2. RANGELAND RESOURCES 4
1.2.1. Cattleguards 4
1.2.2. Fence Requirement 5
1.2.3. Livestock Watering Requirement 5
1.3. NOXIOUS WEEDS 5
1.3.1 African Rue (Peganum harmala) 5
1.4. LIGHT POLLUTION 5
1.4.1. Downfacing 5
1.4.2. Shielding 5
1.4.3. Lighting Color 6
2. SPECIAL REQUIREMENTS 6
2.1. CAVE/KARST 6
2.1.1. General Construction 6
2.1.2. Pad Construction 6
2.1.3. Surface Flowlines Installation 6
2.1.4. Production Mitigation 7
2.1.5. Residual and Cumulative Mitigation 7
2.1.6. Plugging and Abandonment Mitigation 7
2.3 WILDLIFE 7
2.3.2. Texas Hornshell Mussel 7
2.4 SPECIAL STATUS PLANT SPECIES 7
2.5 VISUAL RESOURCE MANAGEMENT 7
2.5.1 VRM IV 7
3. CONSTRUCTION REQUIREMENTS 7
3.1 CONSTRUCTION NOTIFICATION 7
3.2 TOPSOIL 8
3.3 CLOSED LOOP SYSTEM 8
3.4 FEDERAL MINERAL PIT 8
3.5 WELL PAD & SURFACING 8
3.6 EXCLOSURE FENCING (CELLARS & PITS) 8
3.7 ON LEASE ACCESS ROAD 8
3.7.1 Road Width 8

3.7.2 Surfacing 8
3.7.3 Crowning 9
3.7.4 Ditching 9
3.7.5 Turnouts 9
3.7.6 Drainage 9
3.7.7 Public Access 10
5. PRODUCTION (POST DRILLING) 12
5.1 WELL STRUCTURES & FACILITIES 12
5.1.1 Placement of Production Facilities 12
5.1.2 Exclosure Netting (Open-top Tanks) 12
5.1.3. Chemical and Fuel Secondary Containment and Exclosure Screening 12
5.1.4. Open-Vent Exhaust Stack Exclosures 12
5.1.5. Containment Structures 12
6. RECLAMATION 12
6.1 ROAD AND SITE RECLAMATION 13
6.2 EROSION CONTROL 13
6.3 INTERIM RECLAMATION 13
6.4 FINAL ABANDONMENT & RECLAMATION 13
6.5 SEEDING TECHNIQUES 14
6.6 SOIL SPECIFIC SEED MIXTURE 14

1. GENERAL PROVISIONS

The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the operator, or any person working on the operator's behalf, on the public or federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area (within 100ft) of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer, in conjunction with a BLM Cultural Resource Specialist, to determine appropriate actions to prevent the loss of significant scientific values. The operator shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

Traditional Cultural Properties (TCPs) are protected by NHPA as codified in 36 CFR 800 for possessing traditional, religious, and cultural significance tied to a certain group of individuals. Though there are currently no designated TCPs within the project area or within a mile of the project area, but it is possible for a TCP to be designated after the approval of this project. **If a TCP is designated in the project area after the project's approval, the BLM Authorized Officer will notify the operator of the following conditions and the duration for which these conditions are required.**

1. Temporary halting of all construction, drilling, and production activities to lower noise.
2. Temporary shut-off of all artificial lights at night.

The operator is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA), specifically NAGPRA Subpart B regarding discoveries, to protect human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered during project work. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and a BLM-CFO Authorized Officer will be notified immediately. The BLM will then be required to be notified, in writing, within 24 hours of the discovery. The written notification should include the geographic location by county and state, the contents of the discovery, and the steps taken to protect said discovery. You must also include any potential threats to the discovery and a conformation that all activity within 100ft of the discovery has ceased and work will not resume until written certification is issued. All work on the entire project must halt for a minimum of 3 days and work cannot resume until an Authorized Officer grants permission to do so.

Any paleontological resource discovered by the operator, or any person working on the operator's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The operator will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

1.2. RANGELAND RESOURCES

1.2.1. **Cattleguards**

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

1.2.2. **Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

1.2.3. **Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

1.3. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA, New Mexico Department of Agriculture, and BLM requirements and policies.

1.3.1 African Rue (Peganum harmala)

Spraying: The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM_NM_CFO_NoxiousWeeds@blm.gov.

Management Practices: In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

1.4. LIGHT POLLUTION

1.4.1. **Downfacing**

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

1.4.2. **Shielding**

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

1.4.3. **Lighting Color**

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

2. SPECIAL REQUIREMENTS

2.1. CAVE/KARST

2.1.1. **General Construction**

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- This is a sensitive area and all spills or leaks will be reported to the BLM immediately for their immediate and proper treatment, as defined in NTL 3A for Major Undesirable Events.

2.1.2. **Pad Construction**

- The pad will be constructed and leveled by adding the necessary fill and caliche. No blasting will be used for any construction or leveling activities.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will be vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

2.1.3. **Surface Flowlines Installation**

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

2.1.4. **Production Mitigation**

- Tank battery locations and facilities will be bermed and lined with a 20-mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Secondary containment holding capacity must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater (displaced volume from all tanks within the berms MUST be subtracted from total volume of containment in calculating holding capacity).
- Implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

2.1.5. **Residual and Cumulative Mitigation**

The operator will perform annual pressure monitoring on all casing annuli. If the test results indicate a casing failure has occurred, contact a BLM Engineer immediately, and take remedial action to correct the problem.

2.1.6. **Plugging and Abandonment Mitigation**

Upon well abandonment in high cave karst areas, additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

2.3 WILDLIFE

2.3.2. **Texas Hornshell Mussel**

Oil and Gas Zone D - CCA Boundary requirements.

- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization (“RAPPS”)
- Comply with SPCC requirements in accordance with 40 CFR Part 112;
- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable;
- Utilize technologies (like underground borings for pipelines), where feasible;
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

2.4 SPECIAL STATUS PLANT SPECIES

2.5 VISUAL RESOURCE MANAGEMENT

2.5.1 **VRM IV**

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

3. CONSTRUCTION REQUIREMENTS

3.1 CONSTRUCTION NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and COAs on the well site and they shall be made available upon request by the Authorized Officer.

3.2 TOPSOIL

The operator shall strip the topsoil (the A horizon) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. No more than the top 6 inches of topsoil shall be removed. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (the B horizon and below) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

3.3 CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No reserve pits will be used for drill cuttings. The operator shall properly dispose of drilling contents at an authorized disposal site.

3.4 FEDERAL MINERAL PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

3.5 WELL PAD & SURFACING

Any surfacing material used to surface the well pad will be removed at the time of interim and final reclamation.

3.6 EXCLOSURE FENCING (CELLARS & PITS)

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the well cellar is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

The operator will also install and maintain mesh netting for all open well cellars to prevent access to smaller wildlife before and after drilling operations until the well cellar is free of fluids and the operator. Use a maximum netting mesh size of 1 ½ inches. The netting must not have holes or gaps.

3.7 ON LEASE ACCESS ROAD

3.7.1 **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

3.7.2 **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements will be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

3.7.3 Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

3.7.4 Ditching

Ditching shall be required on both sides of the road.

3.7.5 Turnouts

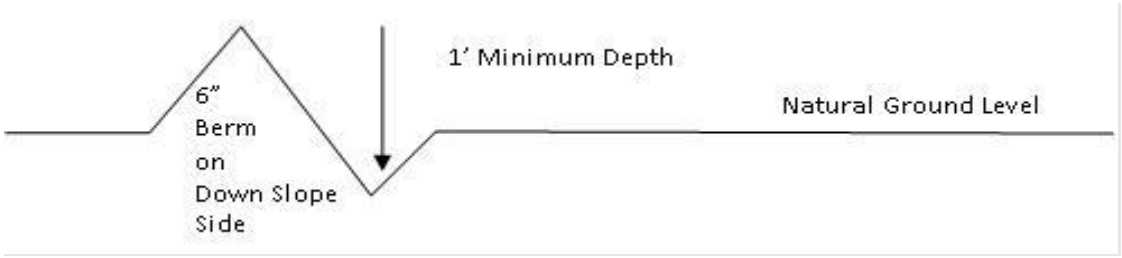
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

3.7.6 Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, leadoff ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4} + 100' = 200' \text{ lead-off ditch interval}$$

3.7.7 **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Approval Date: 10/07/2025

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

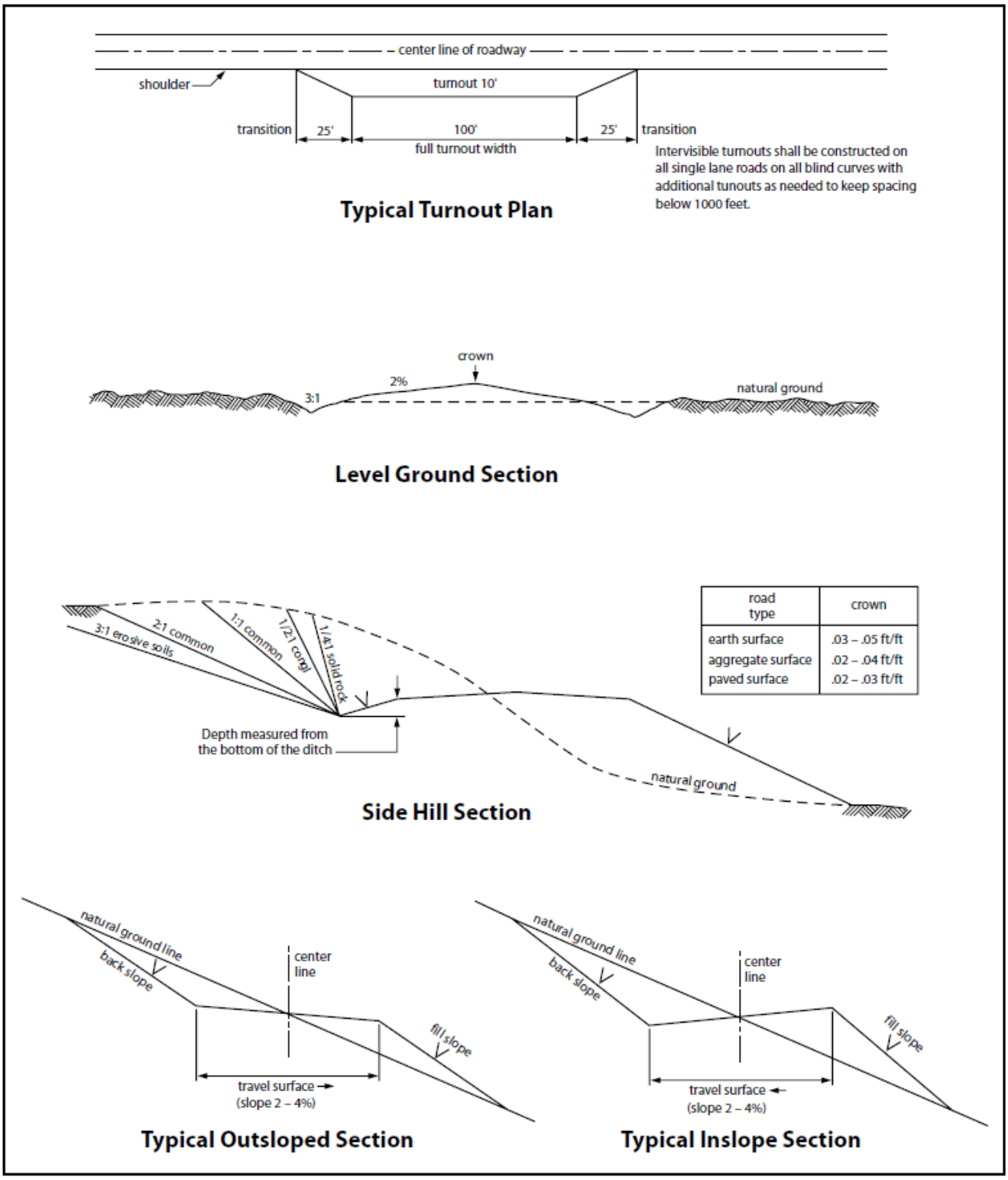


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

5. PRODUCTION (POST DRILLING)

5.1 WELL STRUCTURES & FACILITIES

5.1.1 **Placement of Production Facilities**

Production facilities must be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

5.1.2 **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

5.1.3. Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

5.1.4. Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

5.1.5. Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

6. RECLAMATION

Stipulations required by the Authorized Officer on specific actions may differ from the following general guidelines

6.1 ROAD AND SITE RECLAMATION

Any roads constructed during the life of the well will have the caliche removed or linear burial. If contaminants are indicated then testing will be required for chlorides and applicable contaminate anomalies for final disposal determination (disposed of in a manner approved by the Authorized Officer within Federal, State and Local statutes, regulations, and ordinances) and seeded to the specifications in sections 6.5 and 6.6.

6.2 EROSION CONTROL

Install erosion control berms, windrows, and hummocks. Windrows must be level and constructed perpendicular to down-slope drainage; steeper slopes will require greater windrow density. Topsoil between windrows must be ripped to a depth of at least 12”, unless bedrock is encountered. Any large boulders pulled up during ripping must be deep-buried on location. Ripping must be perpendicular to down-slope. The surface must be left rough in order to catch and contain rainfall on-site. Any trenches resulting from erosion cause by run-off shall be addressed immediately.

6.3 INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations must undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators must work with BLM surface protection specialists (BLM_NM_CFO_Construction_Reclamation@blm.gov) to devise the best strategies to reduce the size of the location. Interim reclamation must allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided in section 6.6.

Upon completion of interim reclamation, the operator shall submit a Sundry Notice, Subsequent Report of Reclamation (Form 3160-5).

6.4 FINAL ABANDONMENT & RECLAMATION

Prior to surface abandonment, the operator shall submit a Notice of Intent Sundry Notice and reclamation plan.

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

Approval Date: 10/07/2025

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding will be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM. After earthwork and seeding is completed, the operator is required to submit a Sundry Notice, Subsequent Report of Reclamation.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (BLM_NM_CFO_Construction_Reclamation@blm.gov).

6.5 SEEDING TECHNIQUES

Seeds shall be hydro-seeded, mechanically drilled, or broadcast, with the broadcast-seeded area raked, ripped or dragged to aid in covering the seed. The seed mixture shall be evenly and uniformly planted over the disturbed area.

6.6 SOIL SPECIFIC SEED MIXTURE

The lessee/permitee shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed land application will be accomplished by mechanical planting using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds tend to drop the bottom of the drill and are planted first; the operator shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory BLM or Soil Conservation

District stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding or until several months of precipitation have occurred, enabling a full four months of growth, with one or more seed generations being established.

Seed Mixture 1 for Loamy Sites

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 10/07/2025

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Cimarex Energy Company of Colorado**
LOCATION:	Section 1, T.25 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	**Riverbend 12-13 Federal Com 4H**
ATS/API ID:	**ATS-25-2216**
APD ID:	**10400105541**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Riverbend 12-13 Federal Com 5H**
ATS/API ID:	**ATS-25-2215**
APD ID:	**10400105546**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Riverbend 12-13 Federal Com 7H**
ATS/API ID:	**ATS-25-2213**
APD ID:	**10400105549**
Sundry ID:	**N/a**

WELL NAME & NO.:	**Riverbend 12-13 Federal Com 8H**
ATS/API ID:	**ATS-25-2212**
APD ID:	**10400105550**
Sundry ID:	**N/a**

COA

Approval Date: 10/07/2025

H2S	No		
Potash	None	None	
Cave/Karst Potential	Medium		
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☑ Flex Hose	☐ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String ☐ 5 String	Capitan Reef None	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☐ Offline Cementing	☐ Casing Clearance

Approval Date: 10/07/2025

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 part 3170 Subpart 3176**, 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 **350 feet** (a minimum of 70 feet into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
      Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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

3. The minimum required fill of cement behind the **7** inch production casing 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 or potash.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

    - Cement should tie-back **100 feet** into the previous casing. 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 or potash.
      Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

C. PRESSURE CONTROL

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

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or

if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

Long Vo (LVO) 9/30/2025

Approval Date: 10/07/2025

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

Operator Certification Data Report

10/15/2025

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: CRYSTAL DENSON **Signed on:** 09/15/2025

Title: Regulatory Analyst

Street Address: 6001 DEAUVILLE BLVD SUITE 300N

City: MIDLAND **State:** TX **Zip:** 76706

Phone: (432)620-1644

Email address: CRYSTAL.DENSON@COTERRA.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

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

Application Data
10/15/2025

APD ID: 10400105550 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400105550 **Tie to previous NOS?** N **Submission Date:** 08/07/2025

BLM Office: Carlsbad **User:** CRYSTAL DENSON **Title:** Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM16104 **Lease Acres:**

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO **APD Operator:** CIMAREX ENERGY COMPANY OF COLORADO

Operator letter of

Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY OF COLORADO

Operator Address: 6001 DEAUVILLE BLVD STE 300N **Zip:** 79706

Operator PO Box:

Operator City: MIDLAND **State:** TX

Operator Phone: (432)620-1936

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WILLOW LAKE **Pool Name:** BONE SPRING, SOUTHEAST

Released to Imaging: 1/8/2026 1:43:18 PM

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** Riverbend 12-13 Fed Com **Number:** W2E2

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 5 Miles **Distance to nearest well:** 20 FT **Distance to lease line:** 330 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: RIVERBEND_12_13_FED_COM_W2E2___C102_Well_8H_20250826152046.pdf

RIVERBEND_12_13_FED_COM_W2E2___C102_Well_8H_20250912070304.pdf

Well work start Date: 12/30/2025 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	1147	FSL	2362	FWL	25S	28E	1	Aliquot SESW	32.155149	-104.041828	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 88128	2934			N
KOP Leg #1	100	FNL	338	FEL	25S	28E	12	Aliquot NENE	32.151585	-104.033372	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	-5953	9478	8887	Y

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	100	FNL	338	FEL	25S	28E	12	Aliquot NENE	32.151585	-104.033372	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	-5953	9478	8887	Y
EXIT Leg #1	100	FSL	338	FEL	25S	28E	13	Aliquot SESE	32.122953	-104.033403	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	-5953	20266	8887	Y
BHL Leg #1	100	FSL	338	FEL	25S	28E	13	Aliquot SESE	32.122953	-104.033403	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	-5953	20266	8887	Y

CONFIDENTIAL

C-102

Submit Electronically
Via OCD Permitting

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

Revised July 9, 2024

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

WELL LOCATION INFORMATION

API Number	Pool Code 96217	Pool Name WILLOW LAKE; BONE SPRING, SOUTHEAST
Property Code	Property Name RIVERBEND 12-13 FEDERAL COM	Well Number 8H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Ground Level Elevation 2934.2'
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 (NAD 83)	Longitude (NAD 83)	County
N	1	25S	28E		1147 SOUTH	2362 WEST	32.155149°	-104.041828°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640				

Order Numbers. Well setbacks are under Common Ownership: ☐Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

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

OPERATOR CERTIFICATIONS

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

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

Crystal Denson 6/4/2025

Signature Date

Crystal Denson

Printed Name

Crystal.Denson@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from the 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.

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 04-29-25

Signature and Seal of Professional Surveyor

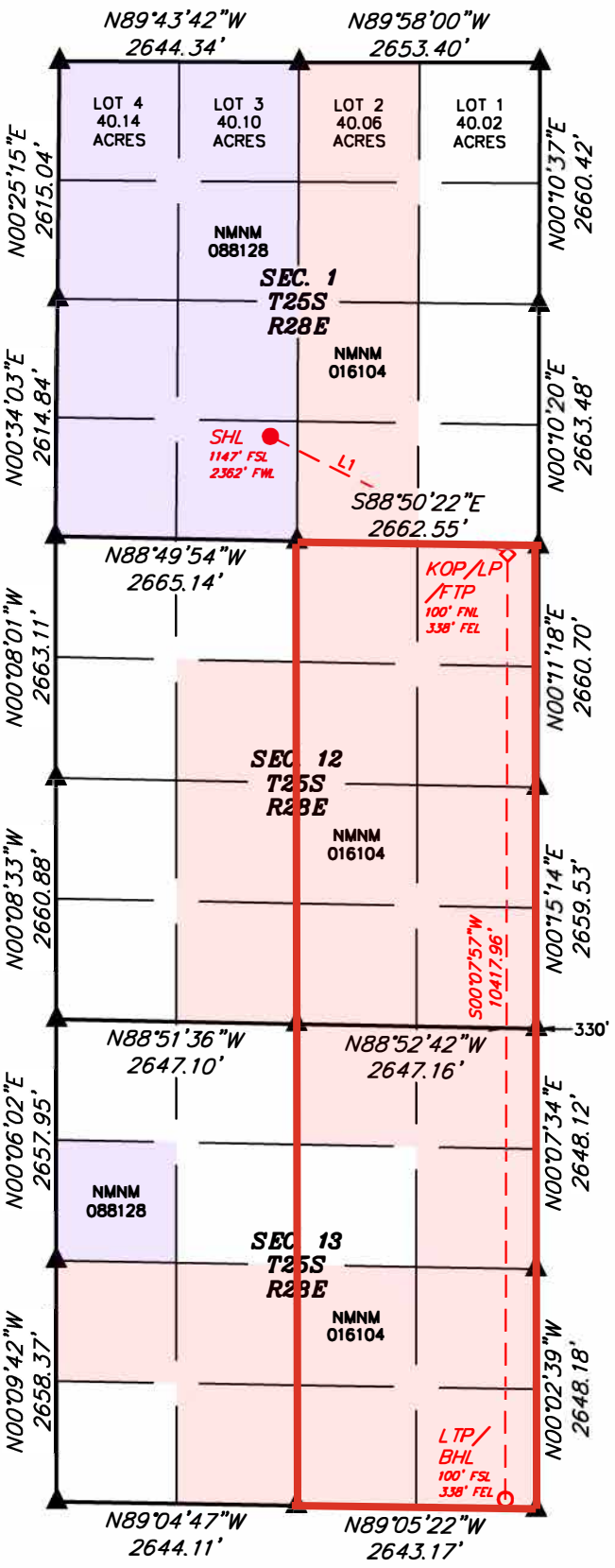
23782 August 12, 2024

Certificate Number Date of Survey

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

Released to Imaging: 1/8/2026 1:43:18 PM

Property Name	Well Number	Drawn By	Revised By
RIVERBEND 12-13 FEDERAL COM	8H	L.T.T. 04-29-25	



● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
⬠ = LEASE PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.54" (32.155149°)
LONGITUDE = -104°02'30.58" (-104.041828°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.09" (32.155026°)
LONGITUDE = -104°02'28.82" (-104.041339°)
STATE PLANE NAD 83 (N.M. EAST)
N: 420300.68' E: 631548.47'
STATE PLANE NAD 27 (N.M. EAST)
N: 420242.39' E: 590364.28'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°09'05.71" (32.151585°)
LONGITUDE = -104°02'00.14" (-104.033372°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°09'05.26" (32.151462°)
LONGITUDE = -104°01'58.38" (-104.032883°)
STATE PLANE NAD 83 (N.M. EAST)
N: 419011.34' E: 634168.93'
STATE PLANE NAD 27 (N.M. EAST)
N: 418953.04' E: 592984.65'

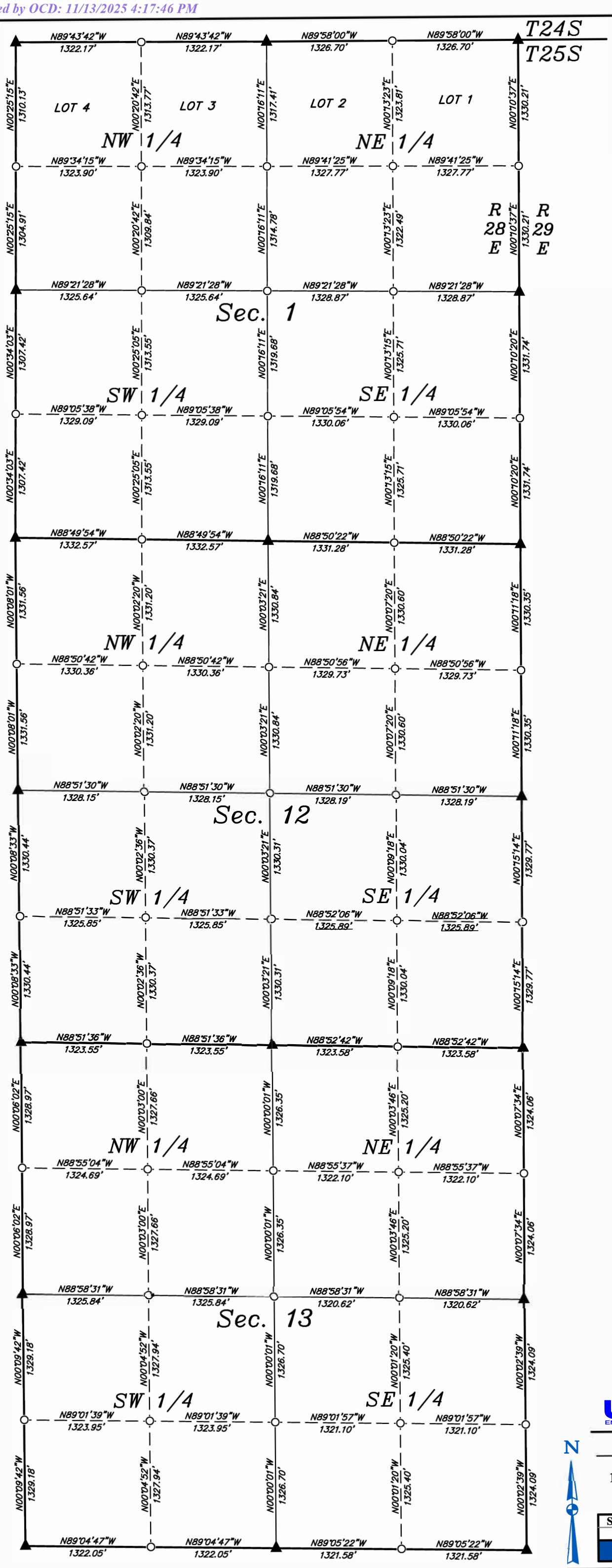
NAD 83 (LTP/BHL)
LATITUDE = 32°07'22.63" (32.122953°)
LONGITUDE = -104°02'00.25" (-104.033403°)
NAD 27 (LTP/BHL)
LATITUDE = 32°07'22.19" (32.122830°)
LONGITUDE = -104°01'58.49" (-104.032915°)
STATE PLANE NAD 83 (N.M. EAST)
N: 408595.64' E: 634188.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 408537.55' E: 593003.83'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S63°33'43"E	2921.11'

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
- Colored areas within section lines represent Federal oil & gas leases.

2000' 1000' 0' 1000'
SCALE

Sheet 2 of 2



REV: 1 08-16-24 D.J.S. (ADD CENTER OF PAD)

1000' 500' 0' 1000'

SCALE

▲ = SECTION CORNERS LOCATED

○ = DIMENSION CORNER ONLY

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

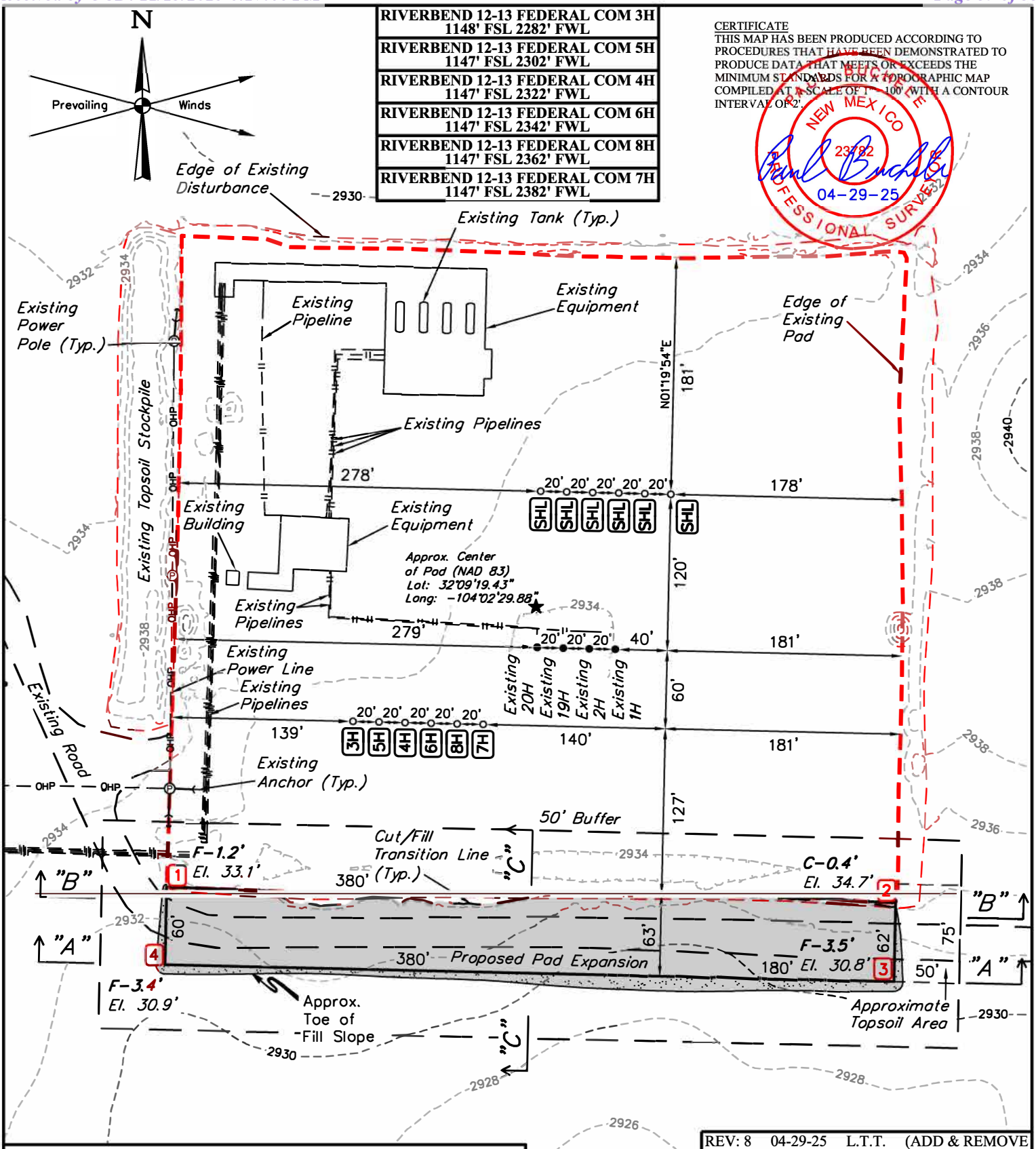
SURVEYED BY	G.M.	03-14-17	SCALE
DRAWN BY	C.D.	03-21-17	1" = 1000'

SECTION BREAKDOWN

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 Paul Buchli 04-29-25 PROFESSIONAL SURVEYOR



PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

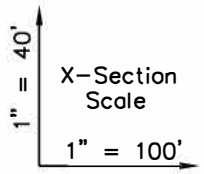
CIMAREX ENERGY CO.

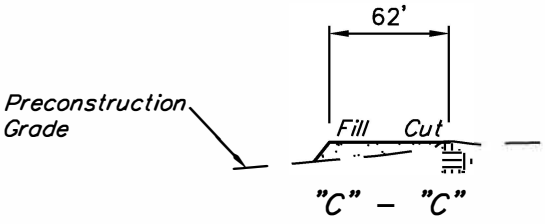
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

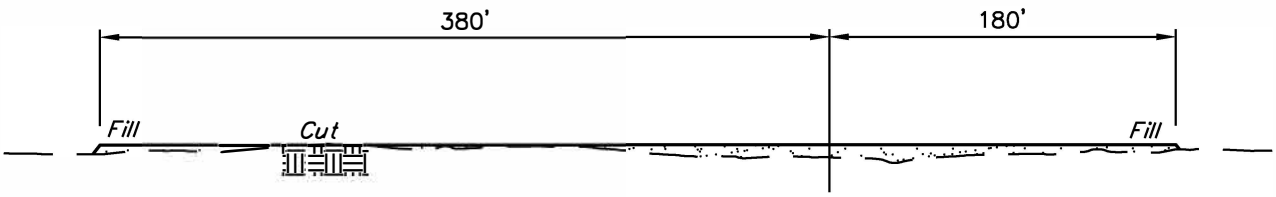
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

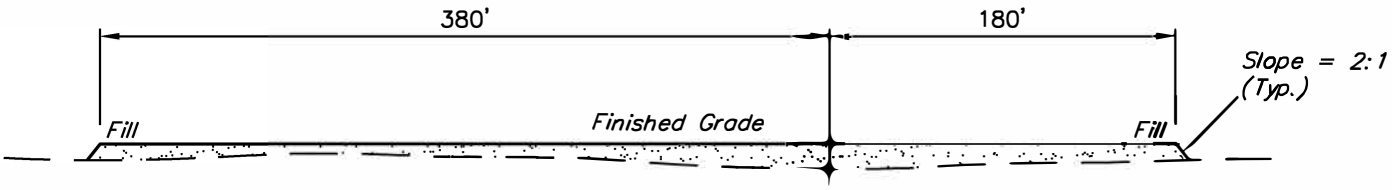




"C" – "C"



"B" – "B"



"A" – "A"

APPROXIMATE EARTHWORK QUANTITIES	
(3") TOPSOIL STRIPPING (NEW CONSTRUCTION ONLY)	210 Cu. Yds.
REMAINING LOCATION	20 Cu. Yds.
TOTAL CUT	**230 Cu. Yds.**
FILL	**3,710 Cu. Yds.**
<DEFICIT> MATERIAL	<3,480> Cu. Yds.
TOPSOIL	210 Cu. Yds.
<DEFICIT> UNBALANCE (After Interim Rehabilitation)	**<3,690> Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS	
	ACRES
EXISTING DISTURBANCE	±7.143
PROPOSED EXPANSION SURFACE USE AREA	±0.969
TOTAL SURFACE USE AREA	**±8.112**

REV: 1 04-29-25 L.T.T. (UPDATE SURFACE USE AREA)

NOTES:

- Fill quantity includes 5% for compaction.

CIMAREX ENERGY CO.

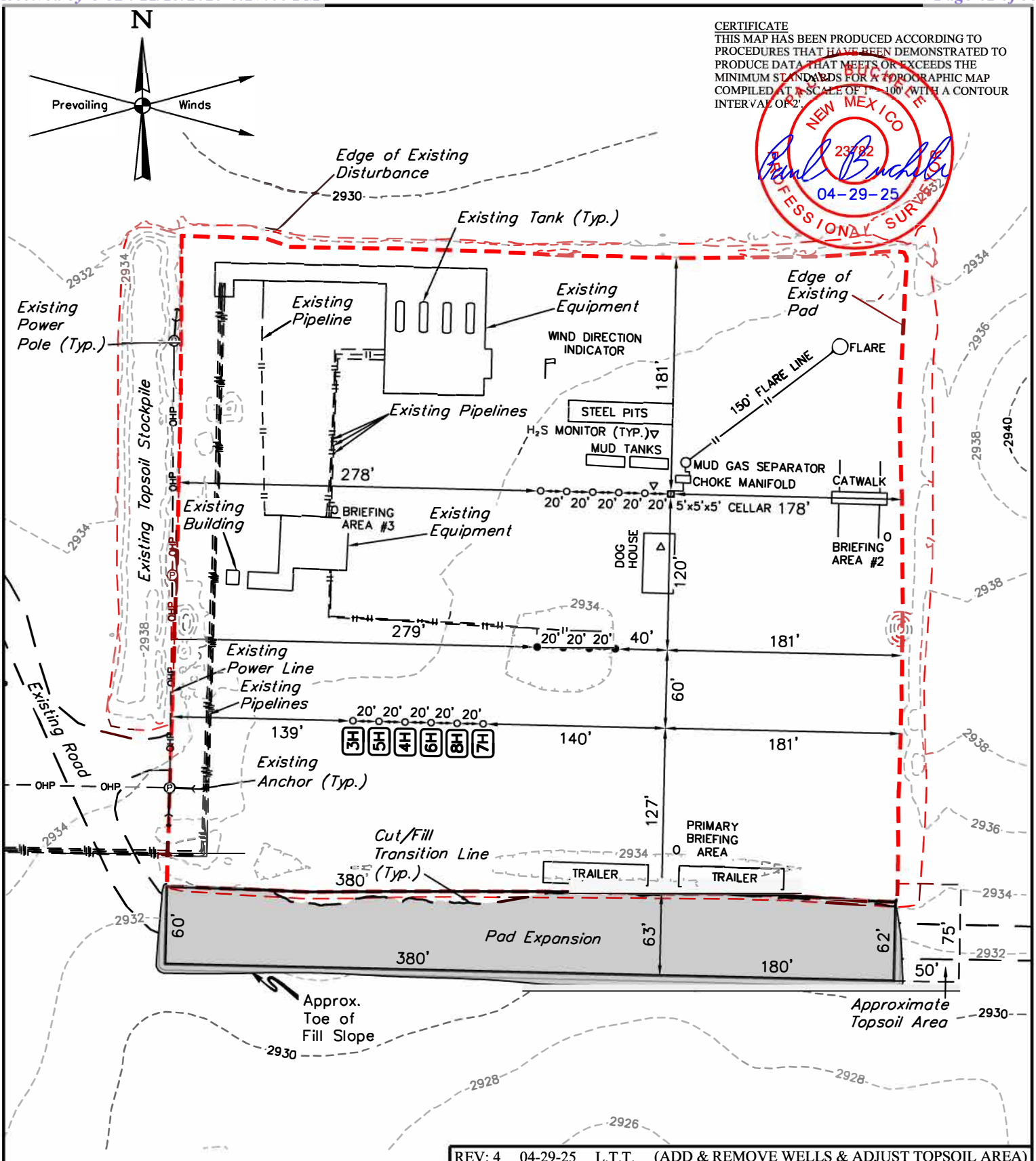
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	AS SHOWN

TYPICAL CROSS SECTIONS **EXHIBIT J**



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR
04-29-25

REV: 4 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

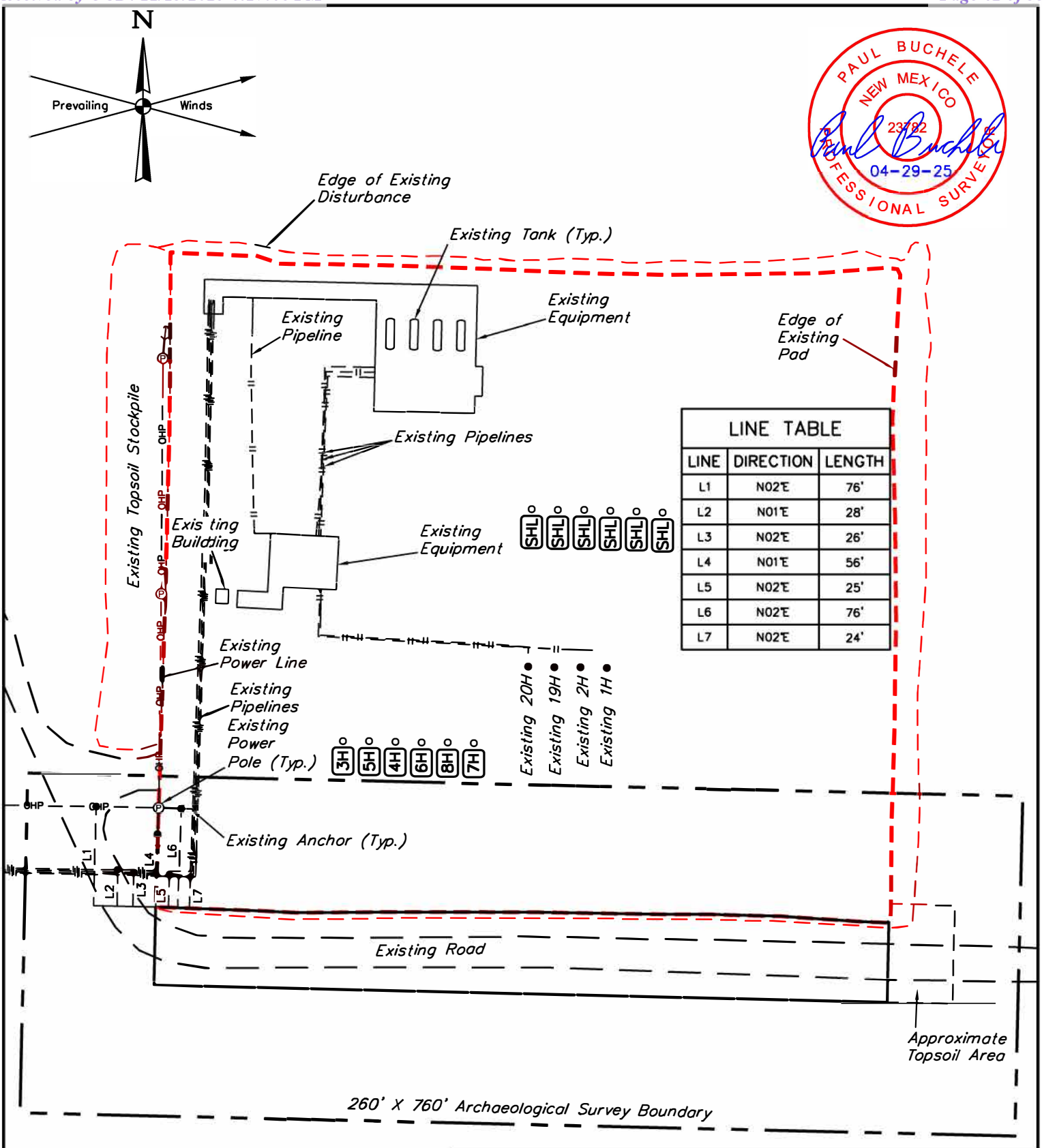
- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N02°E	76'
L2	N01°E	28'
L3	N02°E	26'
L4	N01°E	56'
L5	N02°E	25'
L6	N02°E	76'
L7	N02°E	24'

PAUL BUCHELE
NEW MEXICO
23782
04-29-25
PROFESSIONAL SURVEYOR

REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

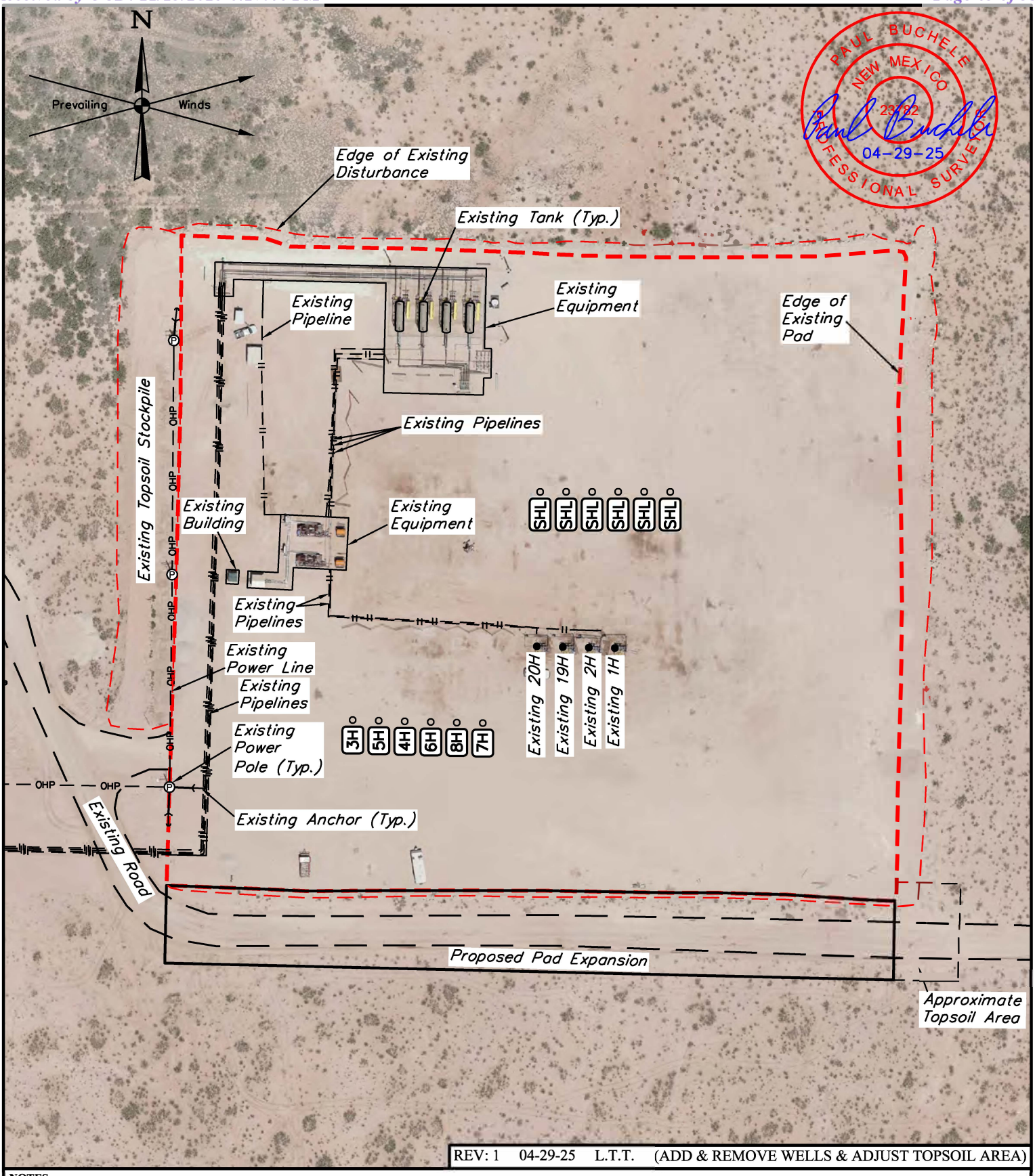
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
ARCHAEOLOGICAL SURVEY BOUNDARY			EXHIBIT L

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-16-24	1" = 100'

AERIAL SITE PLAN

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

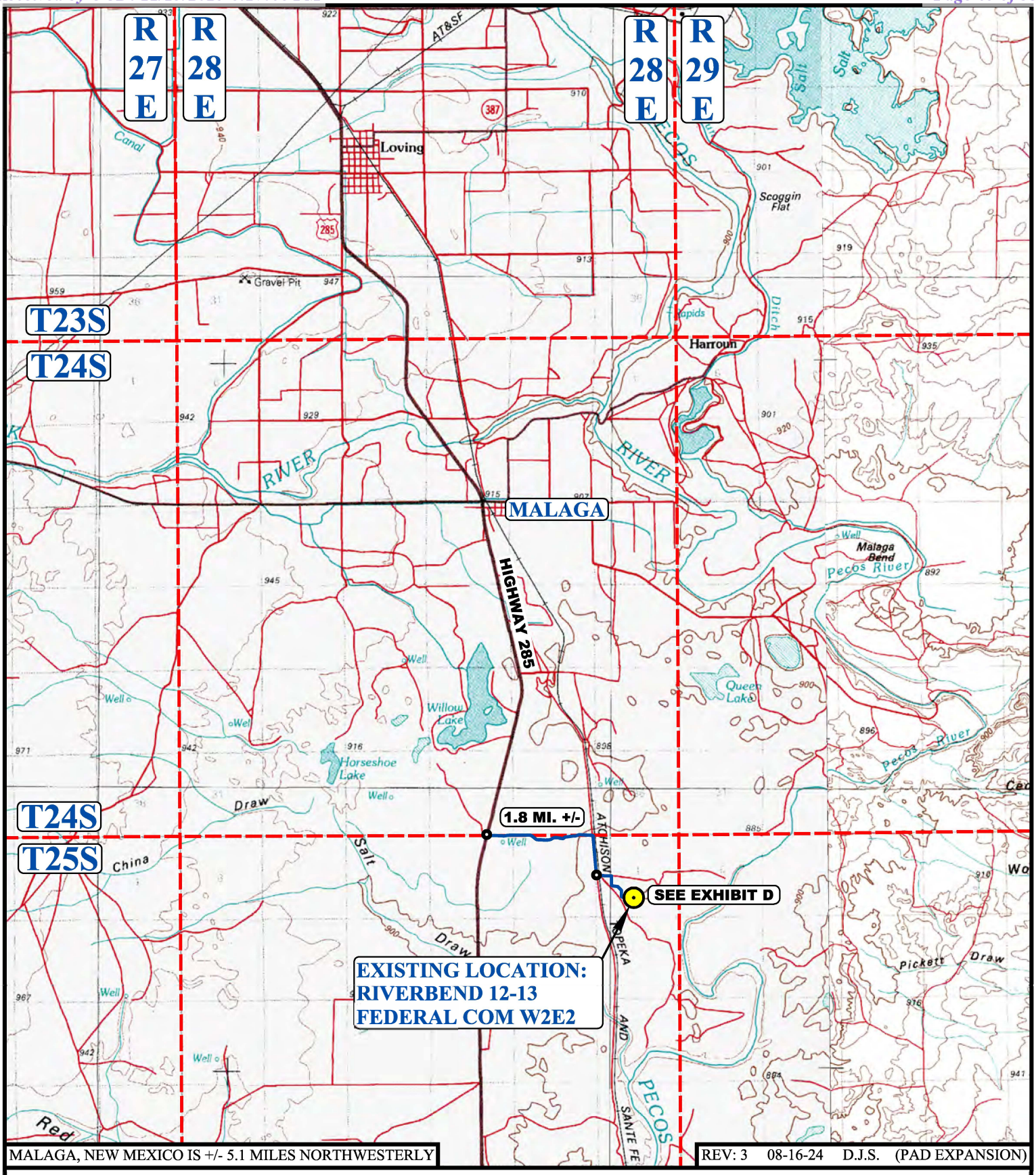
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	

ROAD DESCRIPTION **EXHIBIT A**



MALAGA, NEW MEXICO IS +/- 5.1 MILES NORTHWESTERLY

REV: 3 08-16-24 D.J.S. (PAD EXPANSION)

LEGEND:

⊙ **EXISTING LOCATION**

N

CIMAREX ENERGY CO.

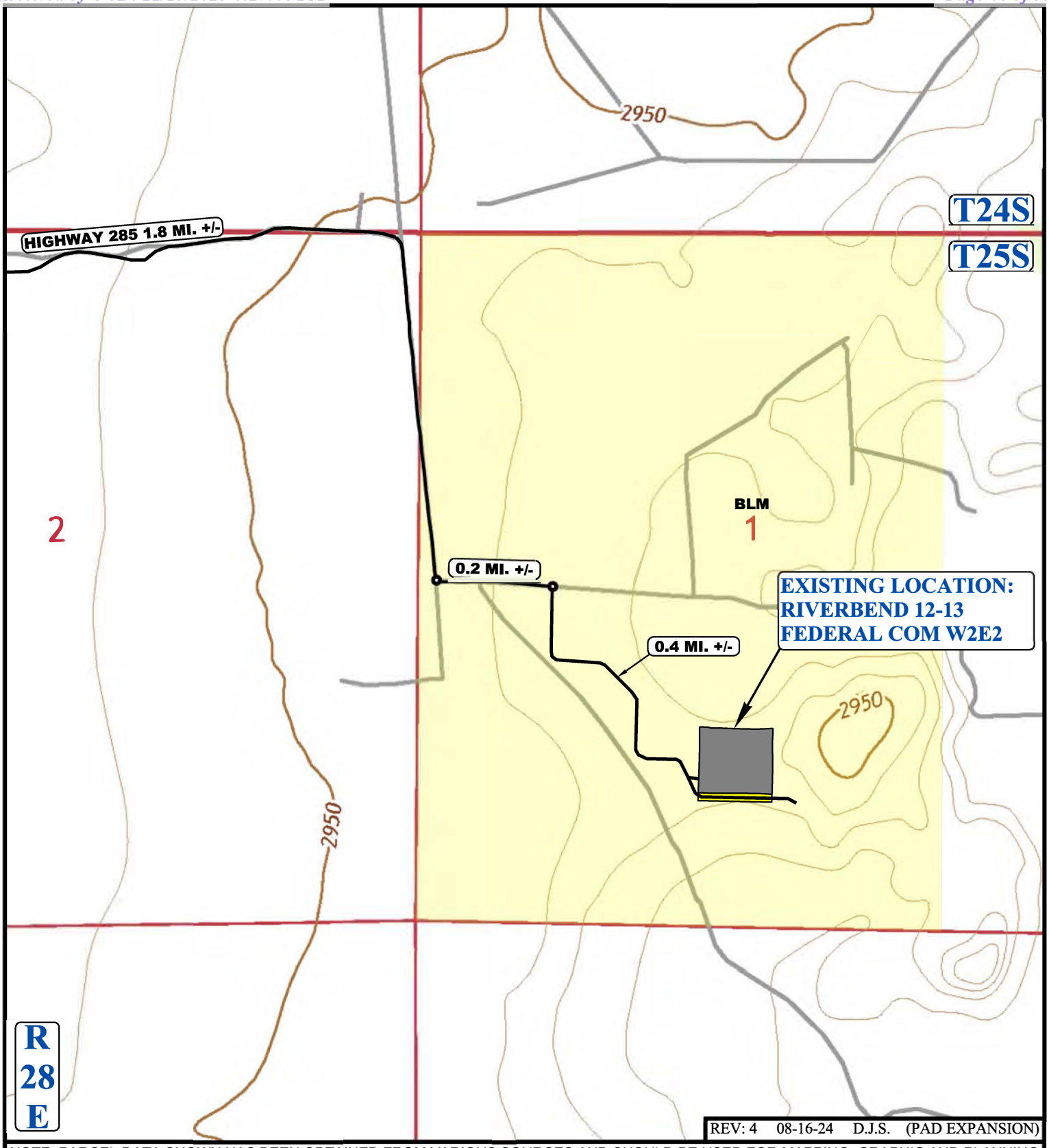
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000

PUBLIC ACCESS ROAD MAP **EXHIBIT B**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

N

CIMAREX ENERGY CO.

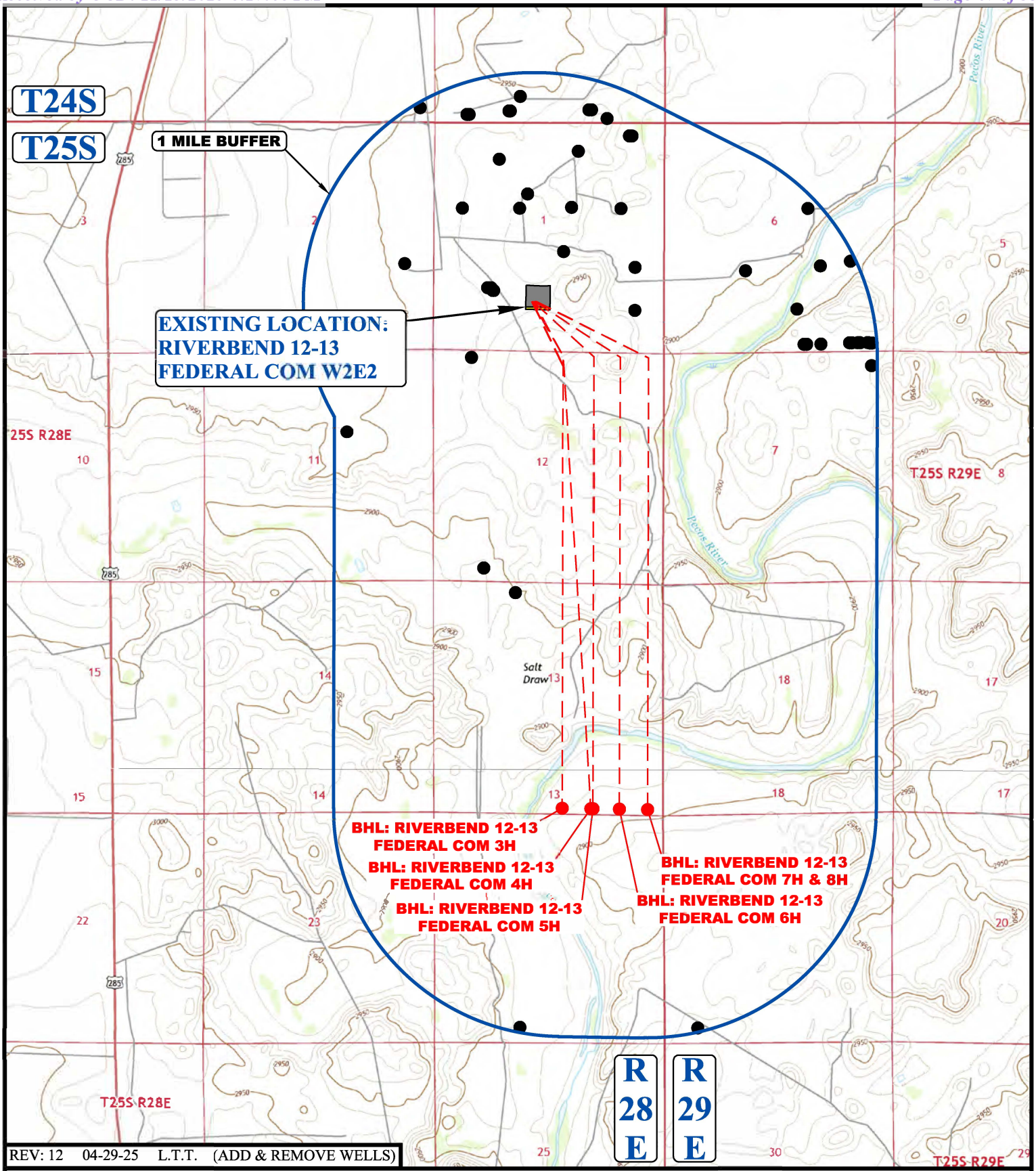
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000

NEW ROAD MAP **EXHIBIT D**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 12 04-29-25 L.T.T. (ADD & REMOVE WELLS)

LEGEND:

● EXISTING WELLS

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000

ONE MILE RADIUS PLAT **EXHIBIT E**

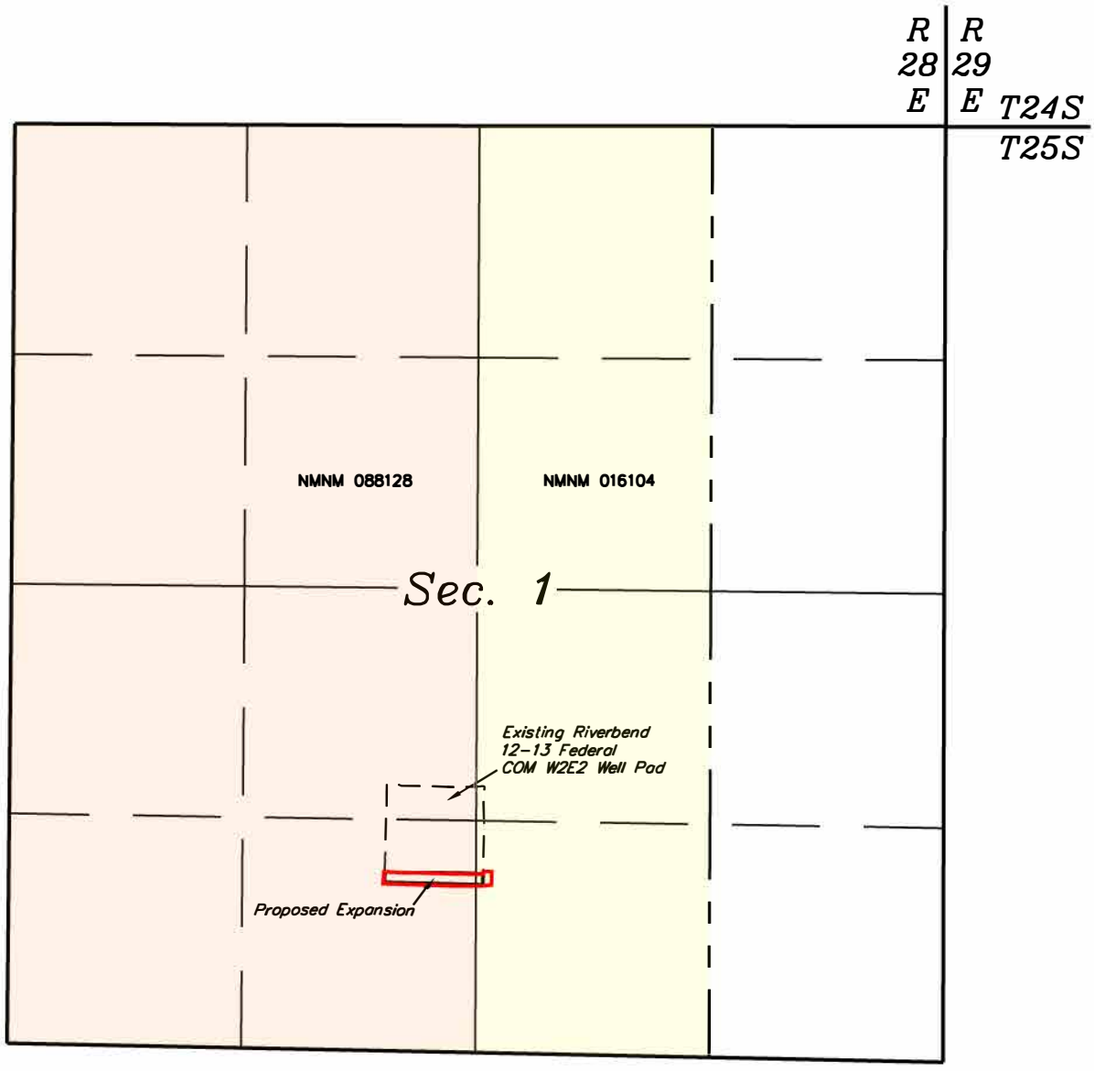
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM W2E2

SUPPLEMENTAL OIL & GAS SPREADSHEET TO TOPO "C"
DATE: 08-16-24 D.J.S.
REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLBORES)

API	OPERATOR	WELL NAME	WELL TYPE	WELL STATUS	UNIT LETTER	SECTION	TOWNSHIP	RANGE	NAD 83 LATITUDE	NAD 83 LONGITUDE
30-015-21111	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged (site released)	E	1	25S	28E	32.1611	-104.0473
30-015-27745	SIETE OIL & GAS CORP	PHILLIPS FEDERAL #001	Oil	Plugged (site released)		1	25S	28E	32.1620	-104.0424
30-015-27754	North Fork Operating, LP	SEMINOLE FEDERAL #001	Oil	Active		1	25S	28E	32.1647	-104.0386
30-015-27844	North Fork Operating, LP	OSCEOLA STATE #001	Oil	Active	H	1	25S	28E	32.1610	-104.0355
30-015-27864	North Fork Operating, LP	SEMINOLE FEDERAL #002	Oil	Active	G	1	25S	28E	32.1611	-104.0391
30-015-27933	North Fork Operating, LP	SEMINOLE FEDERAL #003	Oil	Active	J	1	25S	28E	32.1583	-104.0397
30-015-29367	North Fork Operating, LP	HOPI FEDERAL #001	Oil	Active	F	1	25S	28E	32.1610	-104.0430
30-015-30819	North Fork Operating, LP	HOPI FEDERAL #002	Oil	Active	A	1	25S	28E	32.1642	-104.0445
30-015-37629	MARATHON OIL PERMIAN LLC	RUSTLER BLUFF #004	Oil	Plugged (site released)	I	1	25S	28E	32.1573	-104.0344
30-015-38305	RAYBAW Operating, LLC	RUSTLER BLUFF #007	Oil	Active	P	1	25S	28E	32.1546	-104.0344
30-015-45021	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #029H	Gas	Active	K	1	25S	28E	32.1558	-104.0449
30-015-45022	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #030H	Gas	Active	K	1	25S	28E	32.1558	-104.0450
30-015-45173	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 WA FEDERAL COM #004H	Gas	Active	A	1	25S	28E	32.1656	-104.0348
30-015-45174	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 SB FEDERAL COM #005H	Oil	Active	A	1	25S	28E	32.1656	-104.0347
30-015-45175	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 WXY FEDERAL COM #009H	Gas	Active	A	1	25S	28E	32.1656	-104.0346
30-015-45972	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #031H	Gas	Active	K	1	25S	28E	32.1560	-104.0451
30-015-45973	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #032H	Gas	Active	L	1	25S	28E	32.1560	-104.0454
30-015-45974	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #033H	Gas	Active	L	1	25S	28E	32.1560	-104.0453
30-015-45975	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #034H	Gas	Active	L	1	25S	28E	32.1560	-104.0453
30-015-45976	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #035H	Gas	Active	L	1	25S	28E	32.1560	-104.0452
30-015-28002	MEWBOURNE OIL CO	HOSS BHK STATE #001	Oil	Plugged (site released)	I	2	25S	28E	32.1575	-104.0516
30-015-23002	SCOTT BRANSON	RUSTLER BLUFFS #001	Oil	Active	G	6	25S	29E	32.1611	-104.0215
30-015-34839	MARATHON OIL PERMIAN LLC	RUSTLER BLUFF #001	Oil	Plugged (site released)	J	6	25S	29E	32.1574	-104.0206
30-015-36552	RAYBAW Operating, LLC	RUSTLER BLUFF #002	Oil	Active	K	6	25S	29E	32.1571	-104.0262
30-015-38544	XTO ENERGY, INC	GOLDENCHILD 6 STATE #001	Oil	Plugged (site released)	I	6	25S	29E	32.1577	-104.0183
30-015-41732	XTO ENERGY, INC	GOLDENCHILD 6 STATE #002	Oil	Plugged (not released)	O	6	25S	29E	32.1547	-104.0223
30-015-43003	XTO ENERGY, INC	GOLDENCHILD STATE #001H	Gas	Active	P	6	25S	29E	32.1526	-104.0176
30-015-43251	XTO ENERGY, INC	GOLDEN CORRAL 6 STATE #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0178
30-015-43428	XTO ENERGY, INC	CORRAL CANYON FEDERAL COM #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0167
30-015-43493	XTO ENERGY, INC	CORRAL CANYON FEDERAL COM #013H	Oil	Active	P	6	25S	29E	32.1526	-104.0169
30-015-43956	XTO ENERGY, INC	SIZZLER STATE #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0170
30-015-43957	XTO ENERGY, INC	CATTLE BARON STATE #001H	Oil	Plugged (not released)	P	6	25S	29E	32.1526	-104.0184
30-015-44130	XTO ENERGY, INC	CATTLE BARON STATE #001Y	Oil	Active	P	6	25S	29E	32.1526	-104.0182
30-015-44277	XTO ENERGY, INC	GOLDEN CORRAL FEDERAL COM #002H	Oil	Active	O	6	25S	29E	32.1525	-104.0216
30-015-44279	XTO ENERGY, INC	ROADHOUSE FEDERAL COM #002H	Gas	Active	O	6	25S	29E	32.1525	-104.0218
30-015-44280	XTO ENERGY, INC	SIZZLER FEDERAL COM #002H	Gas	Active	O	6	25S	29E	32.1525	-104.0205
30-015-36559	COG OPERATING LLC	SHOWSTOPPER 7 FEDERAL COM #001H	Oil	Plugged (site released)	A	7	25S	29E	32.1511	-104.0168
30-015-23692	MATADOR PRODUCTION COMPANY	SALT DRAW 11 FEDERAL COM #001	Oil	Active	G	11	25S	28E	32.1469	-104.0559
30-015-41025	COG OPERATING LLC	ILLUSTRATED MAN FEE COM #001H	Oil	Active	D	12	25S	28E	32.1516	-104.0466
30-015-41556	MEWBOURNE OIL CO	MALAGA 13 DM FEDERAL COM #001H	Oil	Active	M	12	25S	28E	32.1382	-104.0456
30-015-40974	MEWBOURNE OIL CO	MALAGA 13 CN FEDERAL COM #001H	Oil	Active	C	13	25S	28E	32.1367	-104.0433
30-015-37480	COG OPERATING LLC	SHOWSTOPPER 19 FEDERAL #006H	Oil	Plugged (site released)	M	19	25S	29E	32.1091	-104.0296
30-015-38246	COG OPERATING LLC	BOYLES 24 #001H	Oil	Plugged (site released)	N	24	25S	28E	32.1091	-104.0429
30-015-27980	SANTA FE ENERGY OPERATING PARTNERS L P	SYLVESTER #001	Oil	Plugged (site released)	P	35	24S	28E	32.1674	-104.0504
30-015-27853	ENDEAVOR ENERGY RESOURCES, LP	TIRANO CNG STATE #001	Oil	Plugged (not released)	N	36	24S	28E	32.1681	-104.0430
30-015-44263	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0ML STATE COM #003H	Gas	Active	M	36	24S	28E	32.1670	-104.0469
30-015-44264	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0ML STATE COM #001H	Gas	Active	M	36	24S	28E	32.1670	-104.0468
30-015-44965	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0NK STATE COM #001H	Gas	Active	N	36	24S	28E	32.1672	-104.0437
30-015-44966	MEWBOURNE OIL CO	FLEETWOOD 36 25 W2NK STATE COM #002H	Gas	Active	N	36	24S	28E	32.1672	-104.0438
30-015-46200	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 SB STATE #004H	Oil	Active	O	36	24S	28E	32.1673	-104.0379
30-015-46201	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 SB STATE #007H	Oil	Active	O	36	24S	28E	32.1673	-104.0377
30-015-46202	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 WD STATE #008H	Gas	Active	O	36	24S	28E	32.1667	-104.0365



- Colored areas within section lines represent Federal oil & gas leases.

LEGEND:

- PROPOSED CENTERLINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPERTY LINE

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

N

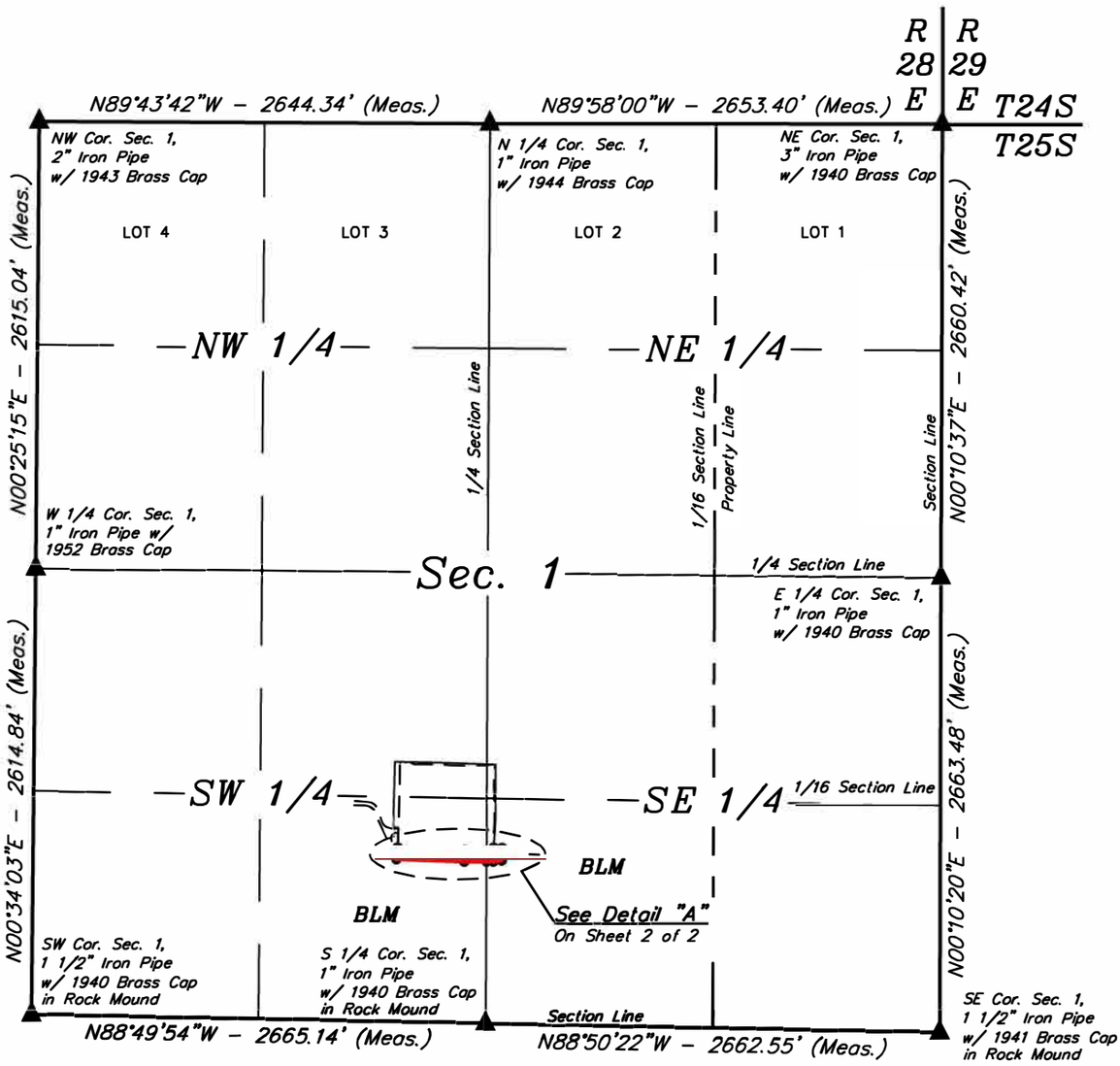
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A

OVERALL SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



SURFACE USE AREA DESCRIPTION

COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M., FROM WHICH THE SOUTHWEST CORNER OF SAID SECTION 1 BEARS N88°49'54'W 2665.14', THENCE N00°16'11"E 947.86' ALONG THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1 TO THE POINT OF BEGINNING; THENCE N89°56'48"W 130.95'; THENCE N88°02'22"W 397.73'; THENCE N04°50'59"E 69.27'; THENCE N89°57'32"E 2.51'; THENCE S00°21'29"W 3.02'; THENCE S88°25'46"E 393.67'; THENCE S89°21'44"E 126.91' TO A POINT ON THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1; THENCE CONTINUING S89°21'44"E 40.19'; THENCE N04°19'11"E 15.69'; THENCE S88°40'06"E 49.03'; THENCE S01°19'54"W 75.00'; THENCE S82°27'12"W 50.60'; THENCE N89°56'48"W 38.80' TO THE POINT OF BEGINNING. CONTAINS 0.969 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS N00°16'11"E
947.86' FROM THE SOUTH 1/4 CORNER OF
SECTION 1, T25S, R28E, N.M.P.M.

1000' 500' 0' 1000'

ACREAGE TABLE	
LOCATION	ACRES
SEC. 1 (SW 1/4)	0.818
SEC. 1 (SE 1/4)	0.151
TOTAL	0.969

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NEW MEXICO 23782 PROFESSIONAL SURVEYOR
04-29-25

Sheet 1 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

N

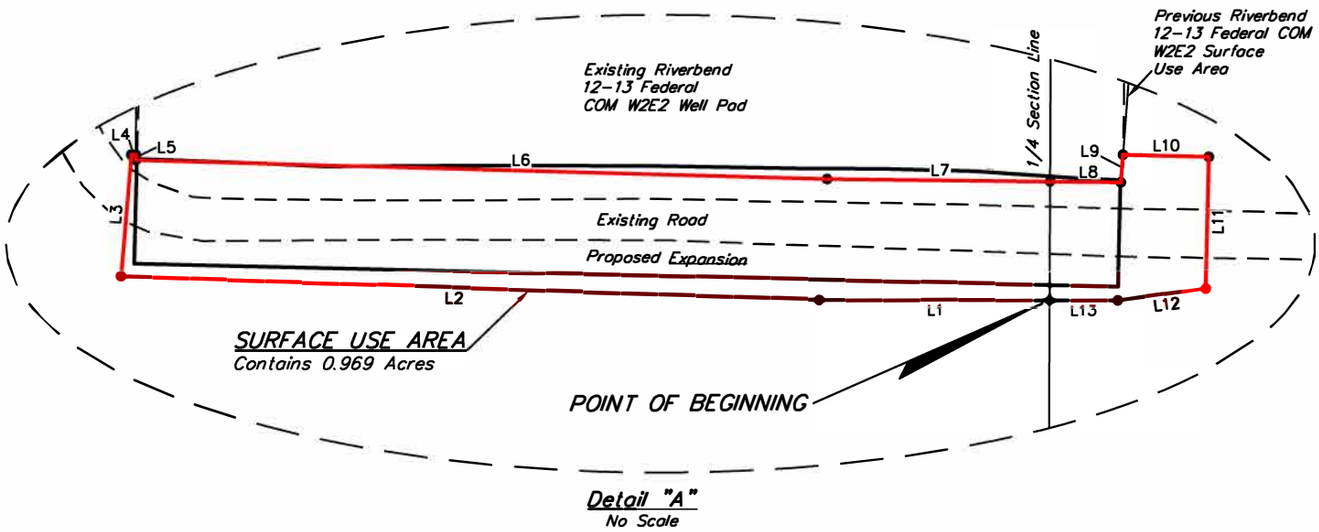
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2 PAD EXPANSION ON BLM LANDS IN SECTION 1, T25S, R28E, N.M.P.M. EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	1" = 1000'
FILE	C-6404-A1		

SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



Detail "A"
No Scale

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°56'48"W	130.95'
L2	N88°02'22"W	397.73'
L3	N04°50'59"E	69.27'
L4	N89°57'32"E	2.51'
L5	S00°21'29"W	3.02'
L6	S88°25'46"E	393.67'
L7	S89°21'44"E	126.91'
L8	S89°21'44"E	40.19'
L9	N04°19'11"E	15.69'
L10	S88°40'06"E	49.03'
L11	S01°19'54"W	75.00'
L12	S82°27'12"W	50.60'
L13	N89°56'48"W	38.80'

CERTIFICATE

THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR
04-29-25

Sheet 2 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2 PAD EXPANSION ON BLM LANDS IN SECTION 1, T25S, R28E, N.M.P.M. EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A
FILE	C-6404-A2		

SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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

WELL LOCATION INFORMATION

API Number	Pool Code 96217	Pool Name WILLOW LAKE; BONE SPRING, SOUTHEAST
Property Code	Property Name RIVERBEND 12-13 FEDERAL COM	Well Number 8H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Ground Level Elevation 2934.2'
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 (NAD 83)	Longitude (NAD 83)	County
N	1	25S	28E		1147 SOUTH	2362 WEST	32.155149°	-104.041828°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640				

Order Numbers. Well setbacks are under Common Ownership: ☐Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

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

OPERATOR CERTIFICATIONS

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

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

Crystal Denson 6/4/2025

Signature Date

Crystal Denson

Printed Name

Crystal.Denson@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from the 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.

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 04-29-25

Signature and Seal of Professional Surveyor

23782 August 12, 2024

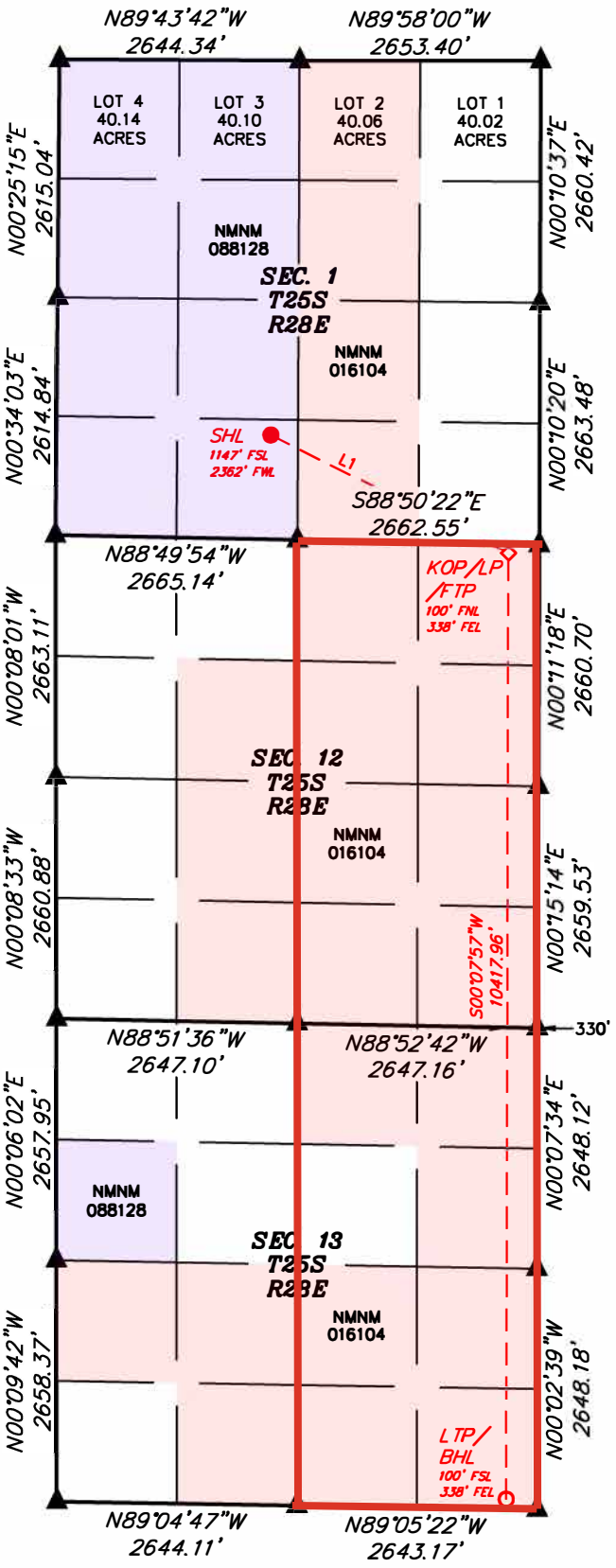
Certificate Number Date of Survey

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

Released to Imaging: 1/8/2026 1:43:18 PM

Property Name	Well Number	Drawn By	Revised By
RIVERBEND 12-13 FEDERAL COM	8H	L.T.T. 04-29-25	

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
⬠ = LEASE PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED



NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.54" (32.155149°)
LONGITUDE = -104°02'30.58" (-104.041828°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.09" (32.155026°)
LONGITUDE = -104°02'28.82" (-104.041339°)
STATE PLANE NAD 83 (N.M. EAST)
N: 420300.68' E: 631548.47'
STATE PLANE NAD 27 (N.M. EAST)
N: 420242.39' E: 590364.28'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°09'05.71" (32.151585°)
LONGITUDE = -104°02'00.14" (-104.033372°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°09'05.26" (32.151462°)
LONGITUDE = -104°01'58.38" (-104.032883°)
STATE PLANE NAD 83 (N.M. EAST)
N: 419011.34' E: 634168.93'
STATE PLANE NAD 27 (N.M. EAST)
N: 418953.04' E: 592984.65'

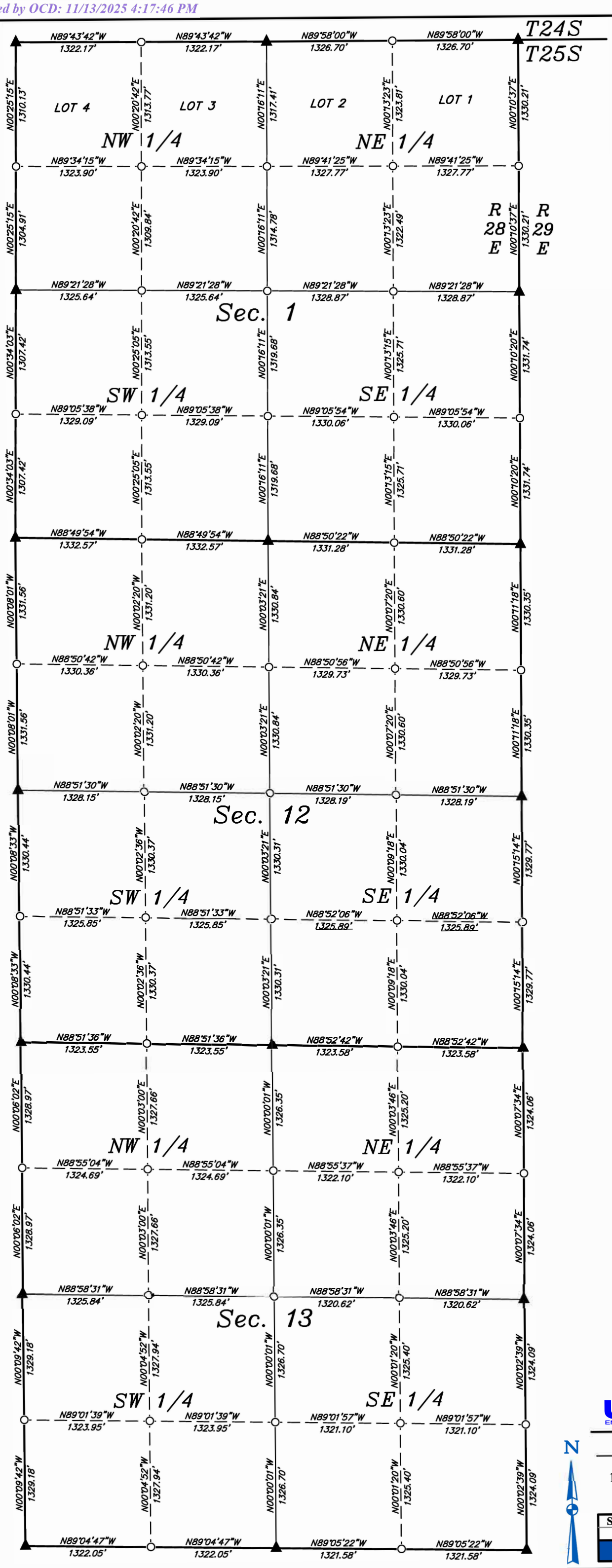
NAD 83 (LTP/BHL)
LATITUDE = 32°07'22.63" (32.122953°)
LONGITUDE = -104°02'00.25" (-104.033403°)
NAD 27 (LTP/BHL)
LATITUDE = 32°07'22.19" (32.122830°)
LONGITUDE = -104°01'58.49" (-104.032915°)
STATE PLANE NAD 83 (N.M. EAST)
N: 408595.64' E: 634188.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 408537.55' E: 593003.83'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S63°33'43"E	2921.11'

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
- Colored areas within section lines represent Federal oil & gas leases.

2000' 1000' 0' 1000'
SCALE

Sheet 2 of 2



REV: 1 08-16-24 D.J.S. (ADD CENTER OF PAD)

1000' 500' 0' 1000'

SCALE

▲ = SECTION CORNERS LOCATED

○ = DIMENSION CORNER ONLY

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

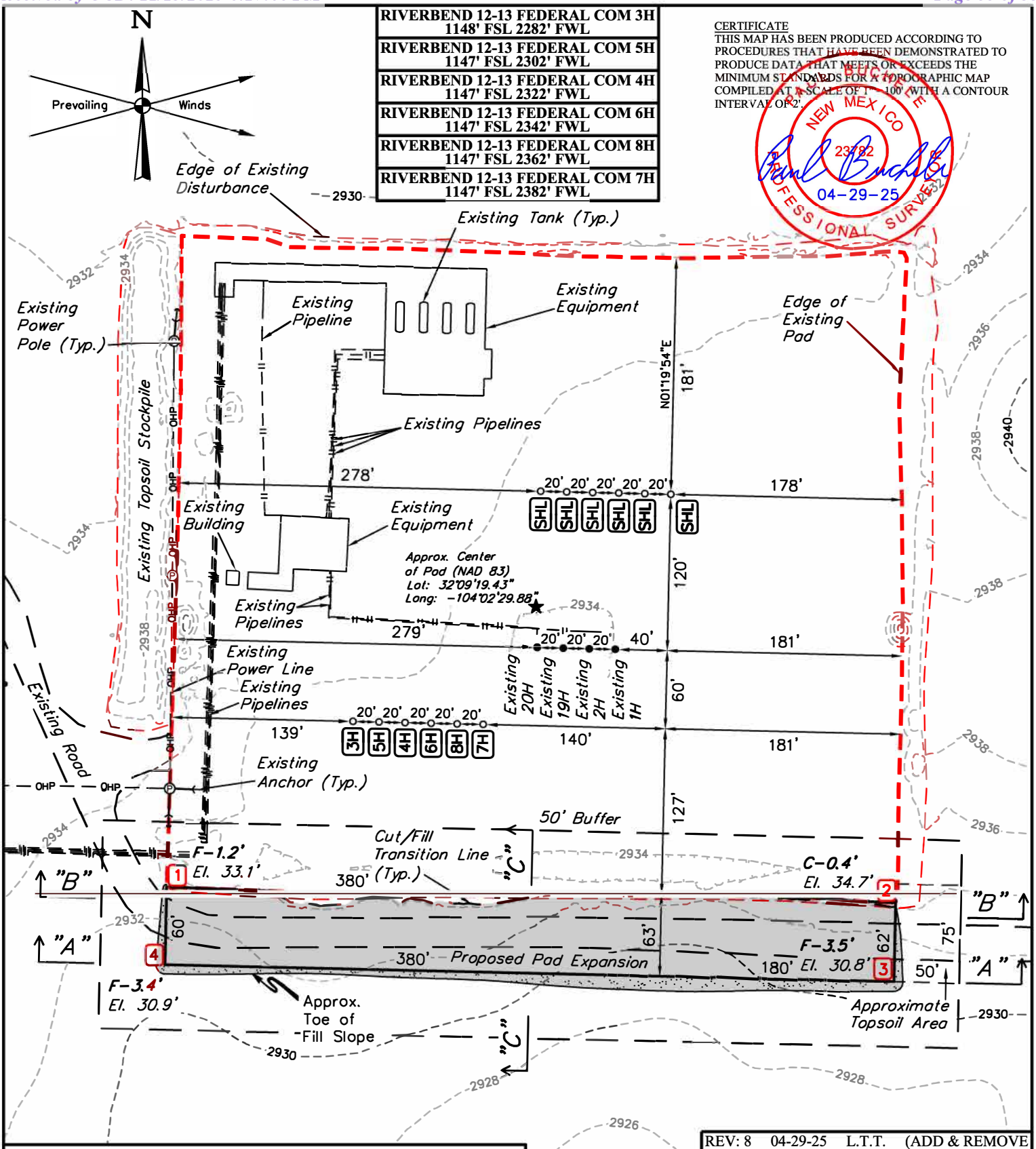
SURVEYED BY	G.M.	03-14-17	SCALE
DRAWN BY	C.D.	03-21-17	1" = 1000'

SECTION BREAKDOWN

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO — 23782 — Paul Buchli — 04-29-25 — PROFESSIONAL SURVEYOR



PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:
- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

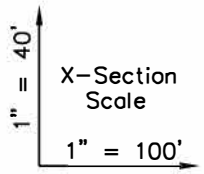
CIMAREX ENERGY CO.

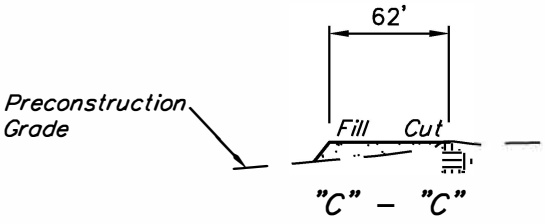
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

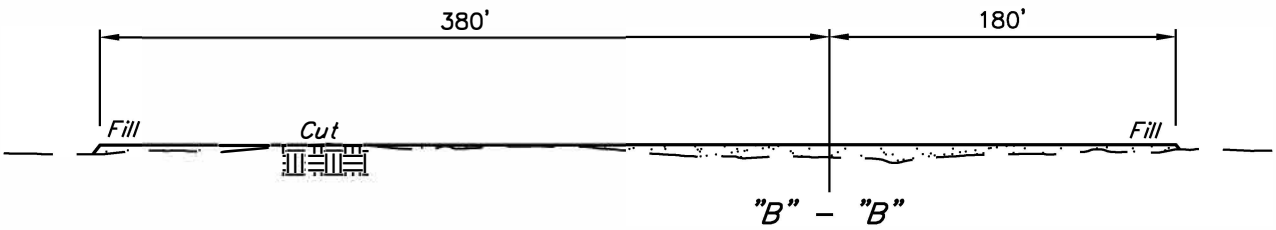
SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

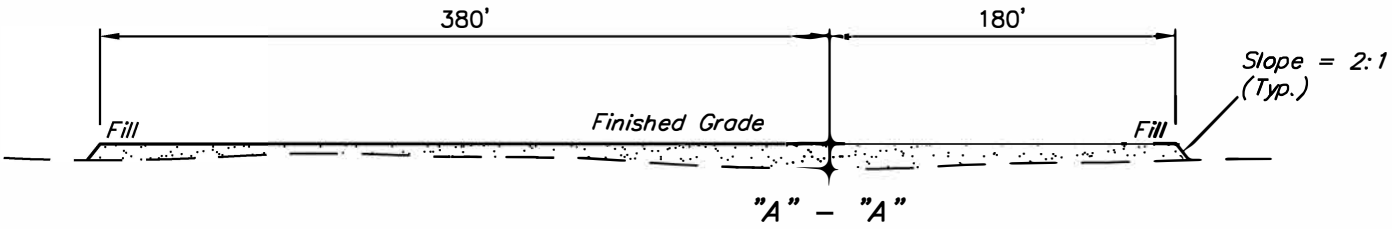
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017









APPROXIMATE EARTHWORK QUANTITIES	
(3") TOPSOIL STRIPPING (NEW CONSTRUCTION ONLY)	210 Cu. Yds.
REMAINING LOCATION	20 Cu. Yds.
TOTAL CUT	**230 Cu. Yds.**
FILL	**3,710 Cu. Yds.**
<DEFICIT> MATERIAL	<3,480> Cu. Yds.
TOPSOIL	210 Cu. Yds.
<DEFICIT> UNBALANCE (After Interim Rehabilitation)	**<3,690> Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS	
	ACRES
EXISTING DISTURBANCE	±7.143
PROPOSED EXPANSION SURFACE USE AREA	±0.969
TOTAL SURFACE USE AREA	**±8.112**

REV: 1 04-29-25 L.T.T. (UPDATE SURFACE USE AREA)

NOTES:

- Fill quantity includes 5% for compaction.

CIMAREX ENERGY CO.

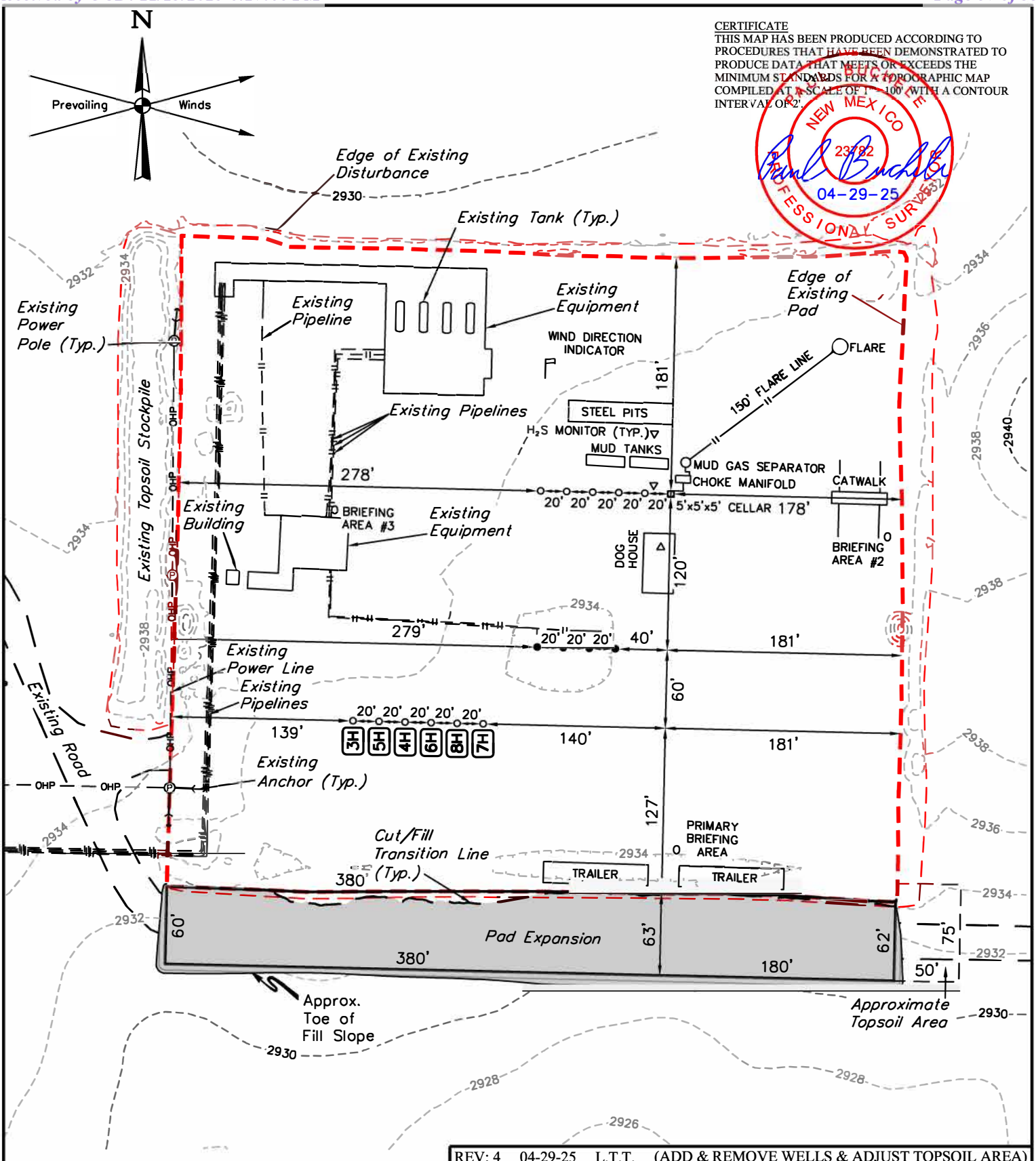
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	AS SHOWN

TYPICAL CROSS SECTIONS **EXHIBIT J**



REV: 4 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

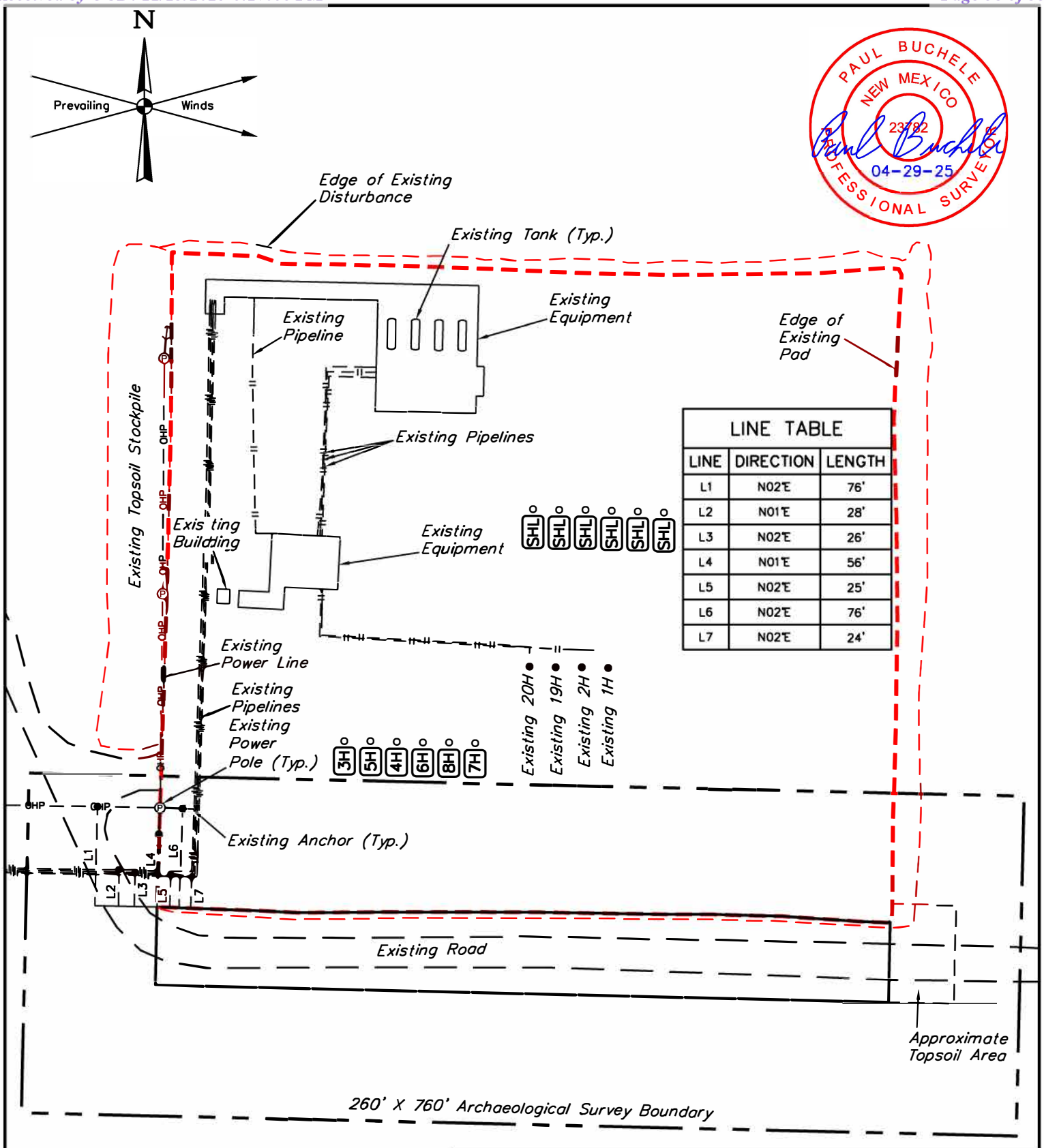
- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N02°E	76'
L2	N01°E	28'
L3	N02°E	26'
L4	N01°E	56'
L5	N02°E	25'
L6	N02°E	76'
L7	N02°E	24'

PAUL BUCHELE
NEW MEXICO
23782
04-29-25
PROFESSIONAL SURVEYOR

REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

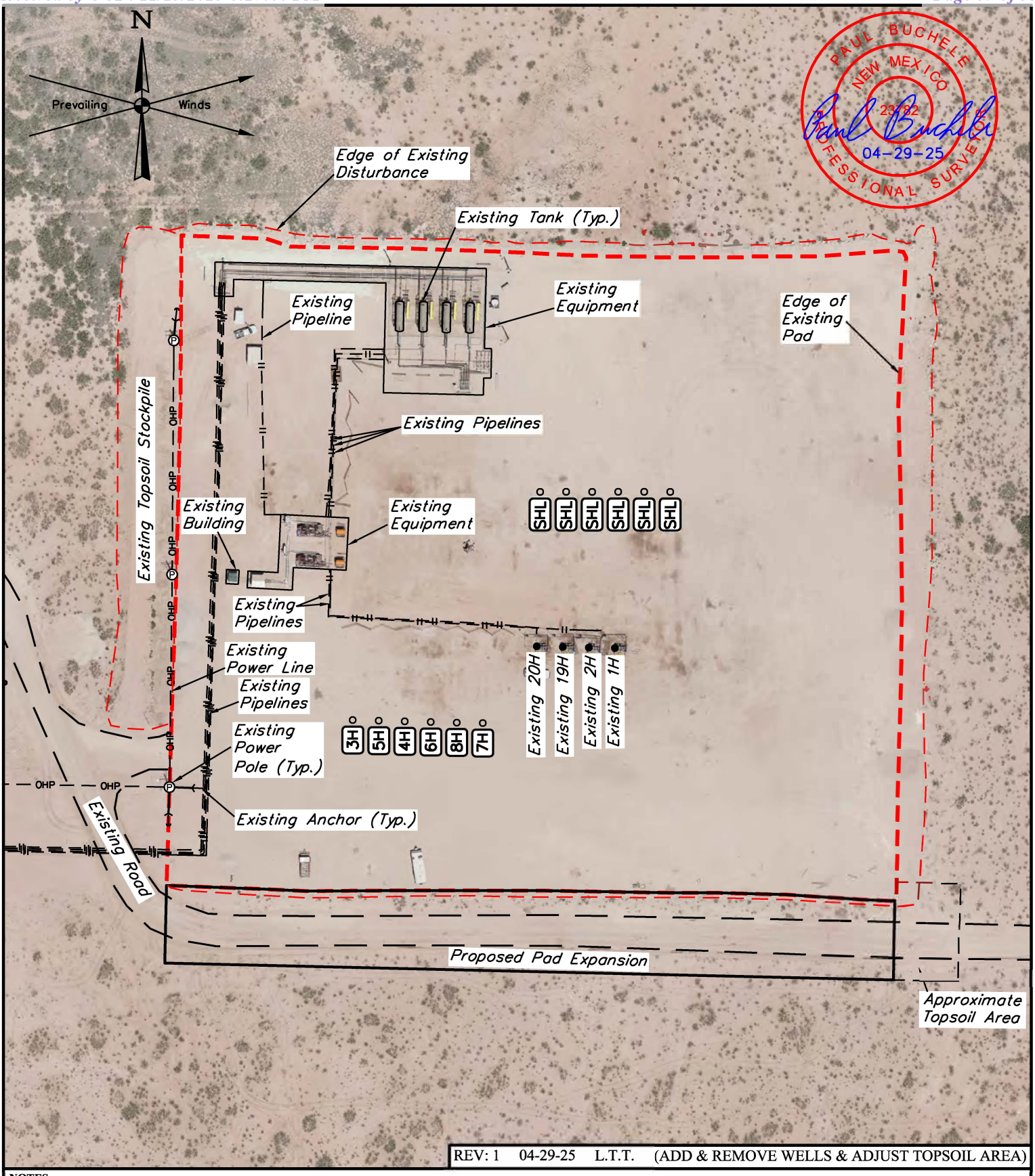
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
ARCHAEOLOGICAL SURVEY BOUNDARY			EXHIBIT L

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-16-24	1" = 100'

AERIAL SITE PLAN

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4	08-16-24	D.J.S.	(PAD EXPANSION)

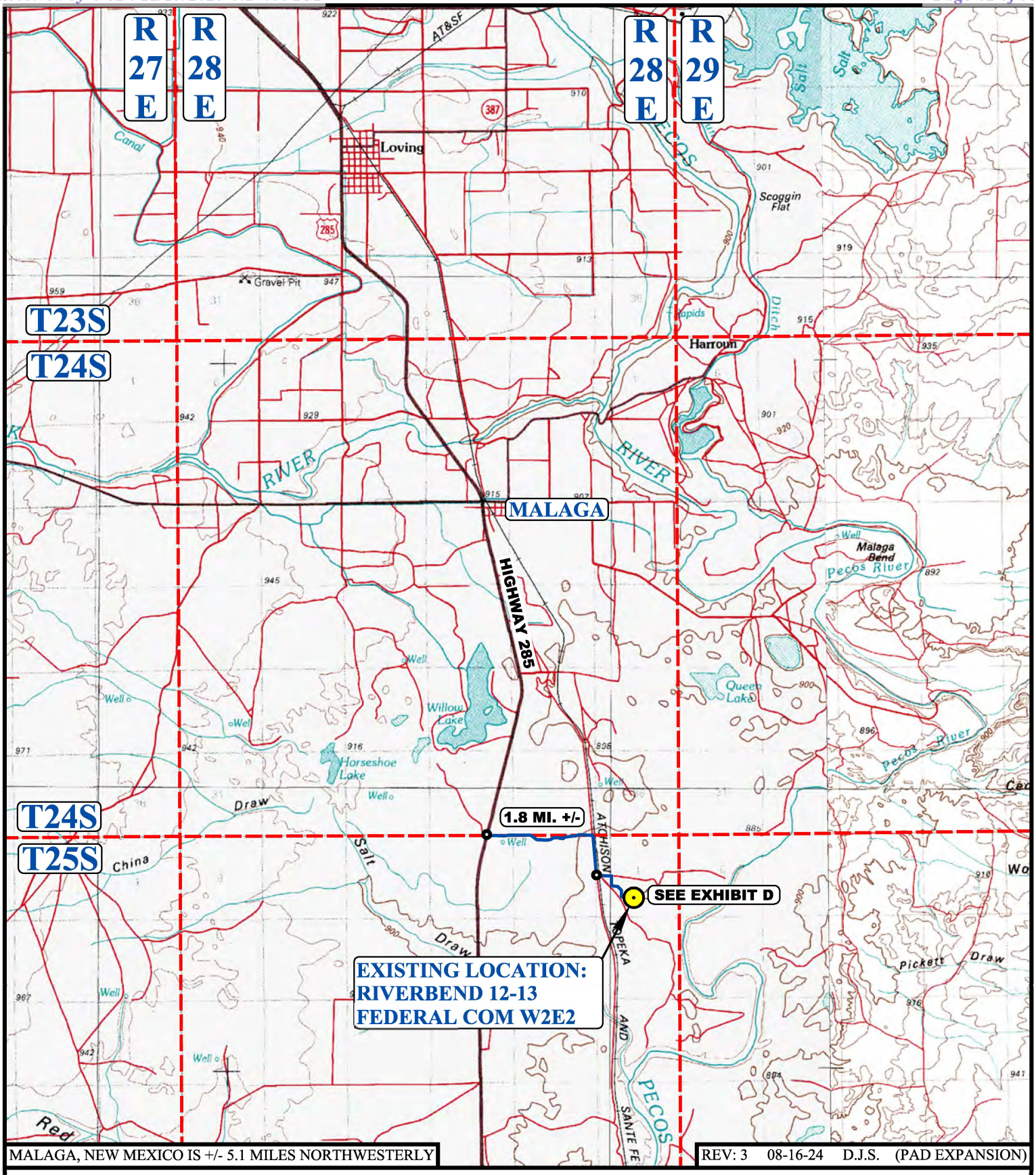
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	

ROAD DESCRIPTION **EXHIBIT A**



MALAGA, NEW MEXICO IS +/- 5.1 MILES NORTHWESTERLY

REV: 3 08-16-24 D.J.S. (PAD EXPANSION)

LEGEND:

⊙ **EXISTING LOCATION**

N

CIMAREX ENERGY CO.

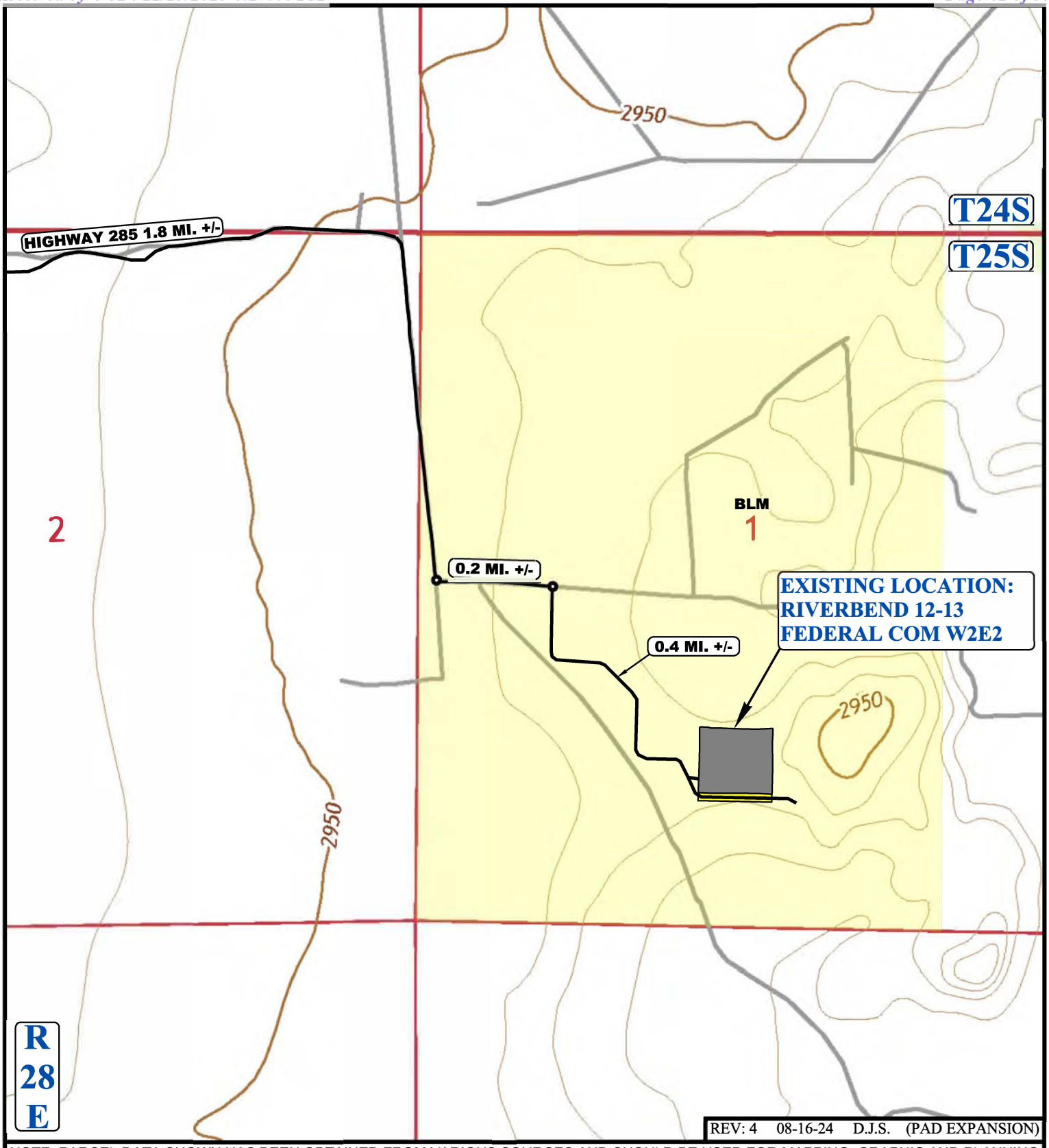
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000

PUBLIC ACCESS ROAD MAP **EXHIBIT B**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

N

CIMAREX ENERGY CO.

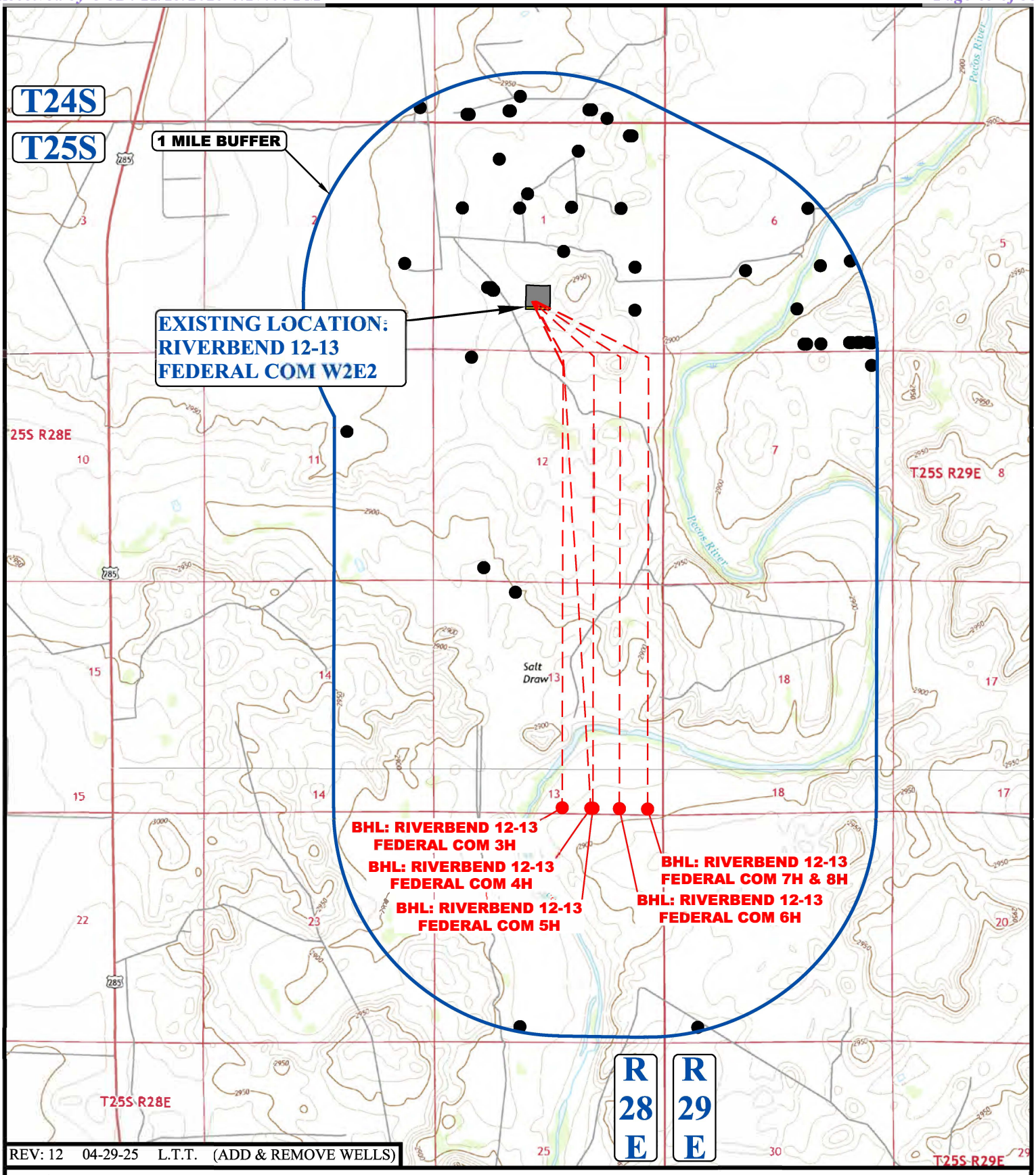
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000

NEW ROAD MAP **EXHIBIT D**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 12 04-29-25 L.T.T. (ADD & REMOVE WELLS)

LEGEND:

● EXISTING WELLS

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000
ONE MILE RADIUS PLAT			EXHIBIT E

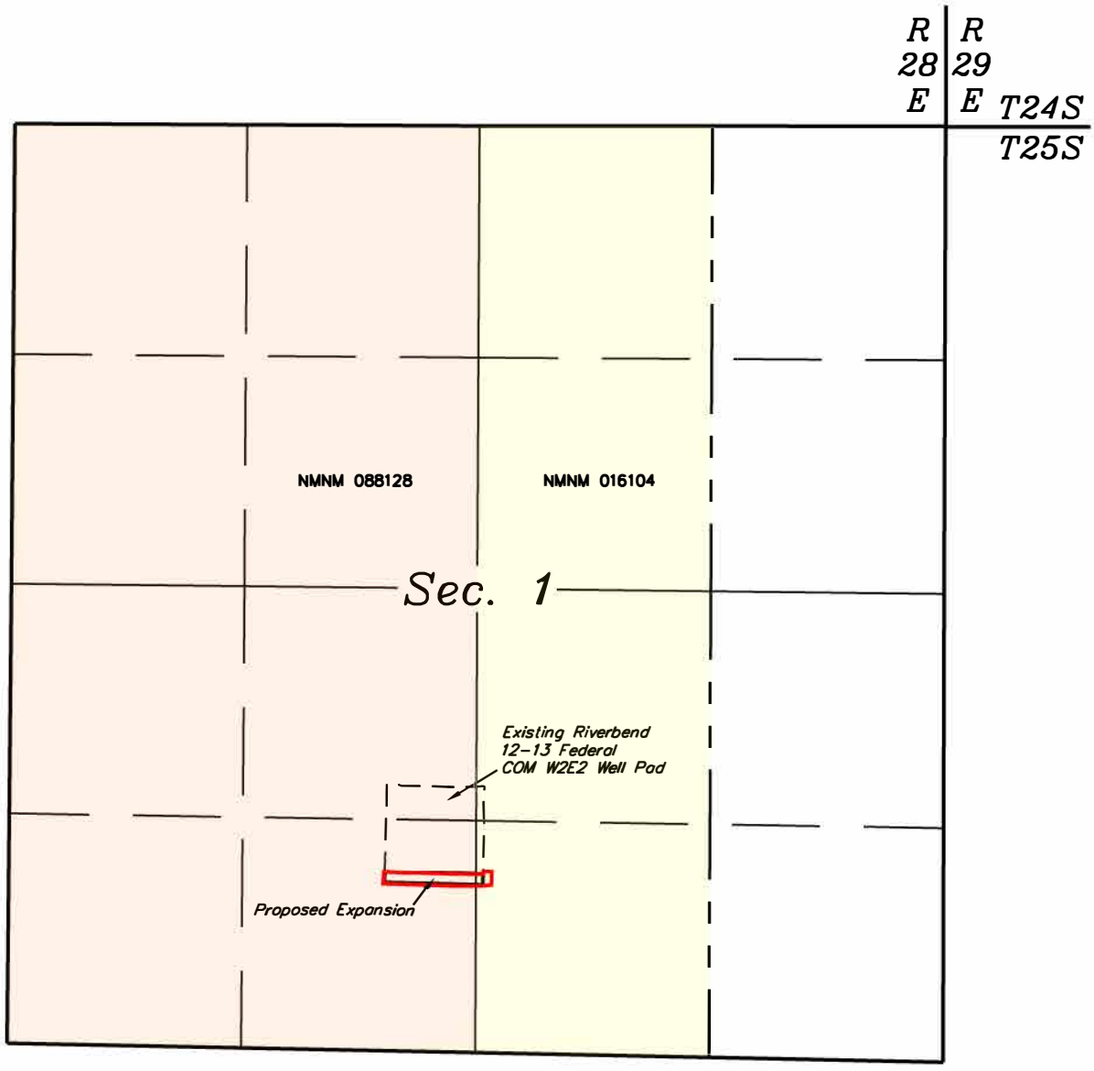
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM W2E2

SUPPLEMENTAL OIL & GAS SPREADSHEET TO TOPO "C"
DATE: 08-16-24 D.J.S.
REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLBORES)

API	OPERATOR	WELL NAME	WELL TYPE	WELL STATUS	UNIT LETTER	SECTION	TOWNSHIP	RANGE	NAD 83 LATITUDE	NAD 83 LONGITUDE
30-015-21111	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged (site released)	E	1	25S	28E	32.1611	-104.0473
30-015-27745	SIETE OIL & GAS CORP	PHILLIPS FEDERAL #001	Oil	Plugged (site released)		1	25S	28E	32.1620	-104.0424
30-015-27754	North Fork Operating, LP	SEMINOLE FEDERAL #001	Oil	Active		1	25S	28E	32.1647	-104.0386
30-015-27844	North Fork Operating, LP	OSCEOLA STATE #001	Oil	Active	H	1	25S	28E	32.1610	-104.0355
30-015-27864	North Fork Operating, LP	SEMINOLE FEDERAL #002	Oil	Active	G	1	25S	28E	32.1611	-104.0391
30-015-27933	North Fork Operating, LP	SEMINOLE FEDERAL #003	Oil	Active	J	1	25S	28E	32.1583	-104.0397
30-015-29367	North Fork Operating, LP	HOPI FEDERAL #001	Oil	Active	F	1	25S	28E	32.1610	-104.0430
30-015-30819	North Fork Operating, LP	HOPI FEDERAL #002	Oil	Active	A	1	25S	28E	32.1642	-104.0445
30-015-37629	MARATHON OIL PERMIAN LLC	RUSTLER BLUFF #004	Oil	Plugged (site released)	I	1	25S	28E	32.1573	-104.0344
30-015-38305	RAYBAW Operating, LLC	RUSTLER BLUFF #007	Oil	Active	P	1	25S	28E	32.1546	-104.0344
30-015-45021	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #029H	Gas	Active	K	1	25S	28E	32.1558	-104.0449
30-015-45022	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #030H	Gas	Active	K	1	25S	28E	32.1558	-104.0450
30-015-45173	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 WA FEDERAL COM #004H	Gas	Active	A	1	25S	28E	32.1656	-104.0348
30-015-45174	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 SB FEDERAL COM #005H	Oil	Active	A	1	25S	28E	32.1656	-104.0347
30-015-45175	MARATHON OIL PERMIAN LLC	WHISTLE PIG 1 WXY FEDERAL COM #009H	Gas	Active	A	1	25S	28E	32.1656	-104.0346
30-015-45972	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #031H	Gas	Active	K	1	25S	28E	32.1560	-104.0451
30-015-45973	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #032H	Gas	Active	L	1	25S	28E	32.1560	-104.0454
30-015-45974	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #033H	Gas	Active	L	1	25S	28E	32.1560	-104.0453
30-015-45975	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #034H	Gas	Active	L	1	25S	28E	32.1560	-104.0453
30-015-45976	Coterra Energy Operating Co.	RIVERBEND 12 13 FEDERAL COM #035H	Gas	Active	L	1	25S	28E	32.1560	-104.0452
30-015-28002	MEWBOURNE OIL CO	HOSS BHK STATE #001	Oil	Plugged (site released)	I	2	25S	28E	32.1575	-104.0516
30-015-23002	SCOTT BRANSON	RUSTLER BLUFFS #001	Oil	Active	G	6	25S	29E	32.1611	-104.0215
30-015-34839	MARATHON OIL PERMIAN LLC	RUSTLER BLUFF #001	Oil	Plugged (site released)	J	6	25S	29E	32.1574	-104.0206
30-015-36552	RAYBAW Operating, LLC	RUSTLER BLUFF #002	Oil	Active	K	6	25S	29E	32.1571	-104.0262
30-015-38544	XTO ENERGY, INC	GOLDENCHILD 6 STATE #001	Oil	Plugged (site released)	I	6	25S	29E	32.1577	-104.0183
30-015-41732	XTO ENERGY, INC	GOLDENCHILD 6 STATE #002	Oil	Plugged (not released)	O	6	25S	29E	32.1547	-104.0223
30-015-43003	XTO ENERGY, INC	GOLDENCHILD STATE #001H	Gas	Active	P	6	25S	29E	32.1526	-104.0176
30-015-43251	XTO ENERGY, INC	GOLDEN CORRAL 6 STATE #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0178
30-015-43428	XTO ENERGY, INC	CORRAL CANYON FEDERAL COM #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0167
30-015-43493	XTO ENERGY, INC	CORRAL CANYON FEDERAL COM #013H	Oil	Active	P	6	25S	29E	32.1526	-104.0169
30-015-43956	XTO ENERGY, INC	SIZZLER STATE #001H	Oil	Active	P	6	25S	29E	32.1526	-104.0170
30-015-43957	XTO ENERGY, INC	CATTLE BARON STATE #001H	Oil	Plugged (not released)	P	6	25S	29E	32.1526	-104.0184
30-015-44130	XTO ENERGY, INC	CATTLE BARON STATE #001Y	Oil	Active	P	6	25S	29E	32.1526	-104.0182
30-015-44277	XTO ENERGY, INC	GOLDEN CORRAL FEDERAL COM #002H	Oil	Active	O	6	25S	29E	32.1525	-104.0216
30-015-44279	XTO ENERGY, INC	ROADHOUSE FEDERAL COM #002H	Gas	Active	O	6	25S	29E	32.1525	-104.0218
30-015-44280	XTO ENERGY, INC	SIZZLER FEDERAL COM #002H	Gas	Active	O	6	25S	29E	32.1525	-104.0205
30-015-36559	COG OPERATING LLC	SHOWSTOPPER 7 FEDERAL COM #001H	Oil	Plugged (site released)	A	7	25S	29E	32.1511	-104.0168
30-015-23692	MATADOR PRODUCTION COMPANY	SALT DRAW 11 FEDERAL COM #001	Oil	Active	G	11	25S	28E	32.1469	-104.0559
30-015-41025	COG OPERATING LLC	ILLUSTRATED MAN FEE COM #001H	Oil	Active	D	12	25S	28E	32.1516	-104.0466
30-015-41556	MEWBOURNE OIL CO	MALAGA 13 DM FEDERAL COM #001H	Oil	Active	M	12	25S	28E	32.1382	-104.0456
30-015-40974	MEWBOURNE OIL CO	MALAGA 13 CN FEDERAL COM #001H	Oil	Active	C	13	25S	28E	32.1367	-104.0433
30-015-37480	COG OPERATING LLC	SHOWSTOPPER 19 FEDERAL #006H	Oil	Plugged (site released)	M	19	25S	29E	32.1091	-104.0296
30-015-38246	COG OPERATING LLC	BOYLES 24 #001H	Oil	Plugged (site released)	N	24	25S	28E	32.1091	-104.0429
30-015-27980	SANTA FE ENERGY OPERATING PARTNERS L P	SYLVESTER #001	Oil	Plugged (site released)	P	35	24S	28E	32.1674	-104.0504
30-015-27853	ENDEAVOR ENERGY RESOURCES, LP	TIRANO CNG STATE #001	Oil	Plugged (not released)	N	36	24S	28E	32.1681	-104.0430
30-015-44263	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0ML STATE COM #003H	Gas	Active	M	36	24S	28E	32.1670	-104.0469
30-015-44264	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0ML STATE COM #001H	Gas	Active	M	36	24S	28E	32.1670	-104.0468
30-015-44965	MEWBOURNE OIL CO	FLEETWOOD 36 25 W0NK STATE COM #001H	Gas	Active	N	36	24S	28E	32.1672	-104.0437
30-015-44966	MEWBOURNE OIL CO	FLEETWOOD 36 25 W2NK STATE COM #002H	Gas	Active	N	36	24S	28E	32.1672	-104.0438
30-015-46200	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 SB STATE #004H	Oil	Active	O	36	24S	28E	32.1673	-104.0379
30-015-46201	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 SB STATE #007H	Oil	Active	O	36	24S	28E	32.1673	-104.0377
30-015-46202	MARATHON OIL PERMIAN LLC	SOUTHERN COMFORT 36 WD STATE #008H	Gas	Active	O	36	24S	28E	32.1667	-104.0365



- Colored areas within section lines represent Federal oil & gas leases.

LEGEND:

- PROPOSED CENTERLINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPERTY LINE

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

N

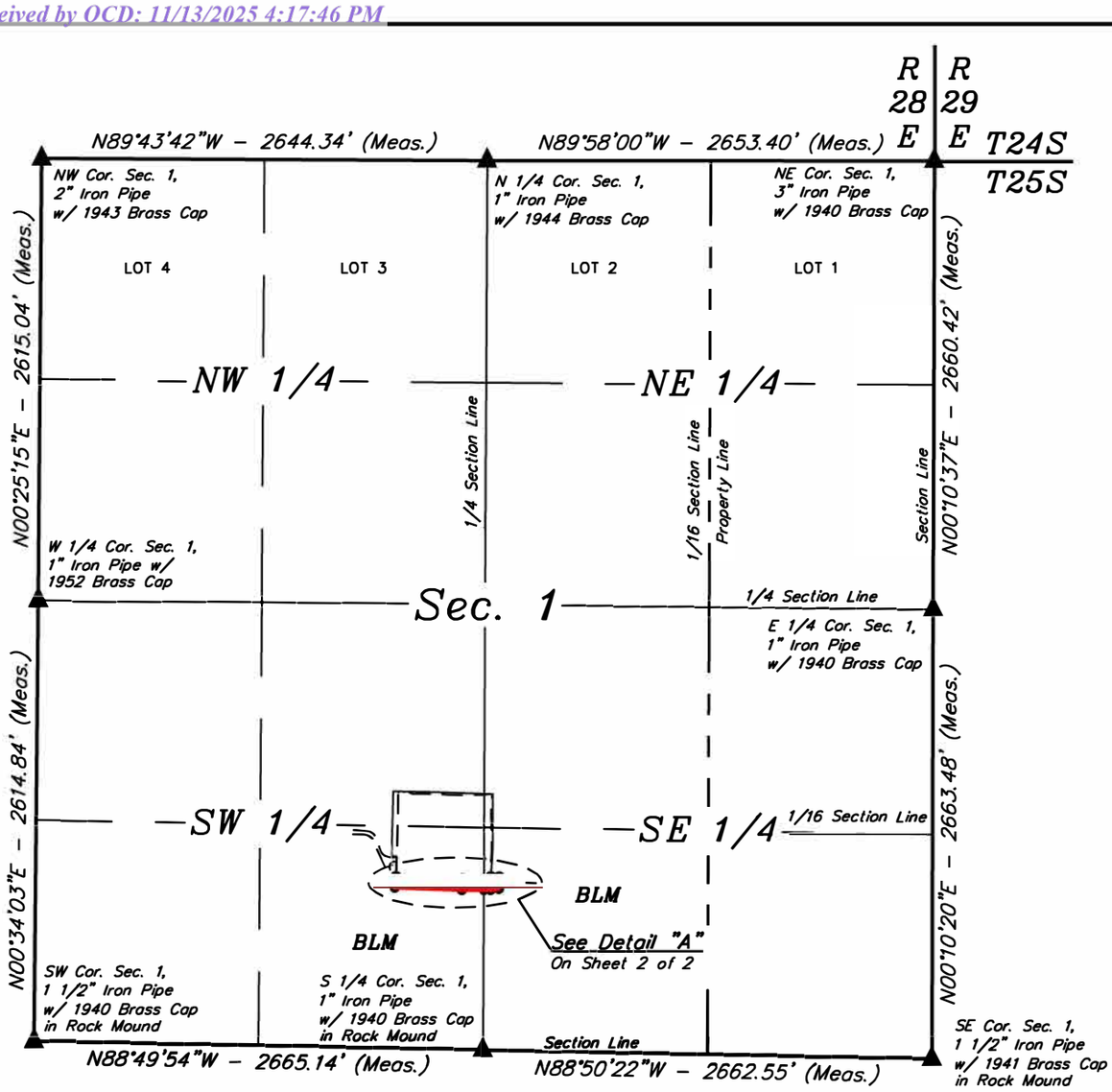
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A

OVERALL SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



SURFACE USE AREA DESCRIPTION

COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M., FROM WHICH THE SOUTHWEST CORNER OF SAID SECTION 1 BEARS N88°49'54'W 2665.14', THENCE N00°16'11"E 947.86' ALONG THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1 TO THE POINT OF BEGINNING; THENCE N89°56'48"W 130.95'; THENCE N88°02'22"W 397.73'; THENCE N04°50'59"E 69.27'; THENCE N89°57'32"E 2.51'; THENCE S00°21'29"W 3.02'; THENCE S88°25'46"E 393.67'; THENCE S89°21'44"E 126.91' TO A POINT ON THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1; THENCE CONTINUING S89°21'44"E 40.19'; THENCE N04°19'11"E 15.69'; THENCE S88°40'06"E 49.03'; THENCE S01°19'54"W 75.00'; THENCE S82°27'12"W 50.60'; THENCE N89°56'48"W 38.80' TO THE POINT OF BEGINNING. CONTAINS 0.969 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS N00°16'11"E
947.86' FROM THE SOUTH 1/4 CORNER OF
SECTION 1, T25S, R28E, N.M.P.M.

1000' 500' 0' 1000'

ACREAGE TABLE	
LOCATION	ACRES
SEC. 1 (SW 1/4)	0.818
SEC. 1 (SE 1/4)	0.151
TOTAL	0.969

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NEW MEXICO 23782 PROFESSIONAL SURVEYOR
04-29-25

Sheet 1 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

N

CIMAREX ENERGY CO.

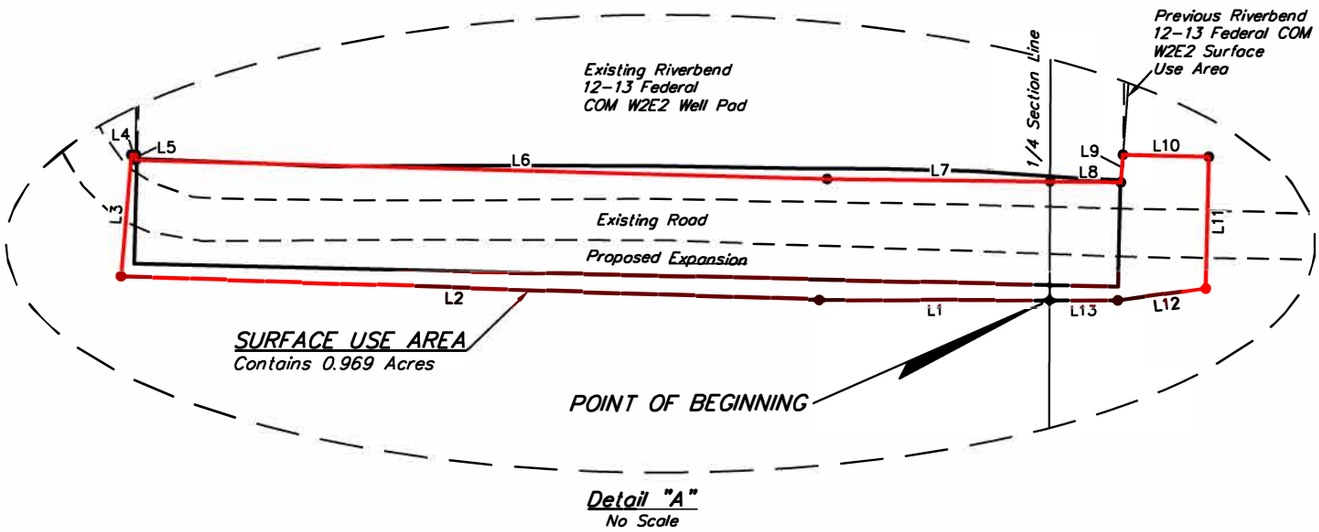
RIVERBEND 12-13 FEDERAL COM W2E2 PAD EXPANSION ON BLM LANDS IN SECTION 1, T25S, R28E, N.M.P.M. EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	1" = 1000'
FILE	C-6404-A1		

SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



Detail "A"
No Scale

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°56'48"W	130.95'
L2	N88°02'22"W	397.73'
L3	N04°50'59"E	69.27'
L4	N89°57'32"E	2.51'
L5	S00°21'29"W	3.02'
L6	S88°25'46"E	393.67'
L7	S89°21'44"E	126.91'
L8	S89°21'44"E	40.19'
L9	N04°19'11"E	15.69'
L10	S88°40'06"E	49.03'
L11	S01°19'54"W	75.00'
L12	S82°27'12"W	50.60'
L13	N89°56'48"W	38.80'

CERTIFICATE

THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NEW MEXICO 23782 PROFESSIONAL SURVEYOR
23782
04-29-25

Sheet 2 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2 PAD EXPANSION ON BLM LANDS IN SECTION 1, T25S, R28E, N.M.P.M. EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A
FILE	C-6404-A2		

SURFACE USE AREA

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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

Drilling Plan Data Report
10/15/2025

APD ID: 10400105550 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16546703	RUSTLER	0	407	407	ANHYDRITE	USEABLE WATER	N
16546704	TOP OF SALT	-1952	1952	1952	ANHYDRITE, SALT	NONE	N
16546705	LAMAR	-2679	2679	2679	ANHYDRITE, SALT	NONE	N
16546706	BELL CANYON	-2806	2806	2806	SANDSTONE	NONE	N
16546707	CHERRY CANYON	-3619	3619	3619	SANDSTONE	NONE	N
16546708	BRUSHY CANYON	-4817	4817	4817	SANDSTONE	NATURAL GAS, OIL	N
16546709	BONE SPRING LIME	-6411	6411	6411	LIMESTONE	NATURAL GAS, OIL	N
16546710	BONE SPRING 1ST	-7361	7361	7361	SANDSTONE	NATURAL GAS, OIL	N
16546711	BONE SPRING 2ND	-8048	8048	8048	SANDSTONE	NATURAL GAS, OIL	N
16546712	BONE SPRING 3RD	-8807	8807	8807	SANDSTONE	NATURAL GAS, OIL	N
16546714		0					N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 20266

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.
Requesting Variance? YES

Variance request: See attached.

Testing Procedure: 1. After running the first string of casing, a 10M BOP/BOPE system with 10M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

(10K for all BOPE). For the low test, the system will be tested to 250 psi. 2. All BOP equipment will be tested utilizing a conventional test plug. 3. A remote kill line is included in the BOPE system 4. All casing strings will be tested per Onshore Order #2, to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of casing burst. 5. If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Choke Diagram Attachment:

10M_BOP_DIAGRAM_20250826152519.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250826152518.pdf

COTERRA_MBU_3T_CFL_20_X_13.38_X_9.58_X_7_X_4.5_20250826152519.pdf

COTERRA_10K_PROD_TREE_20250826152519.pdf

CHOKE_HOSE_M15486_20250826152519.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250912154228.pdf

10M_BOPE_BLM_SUBMISSION_REV.0_20250912154229.pdf

CHOKE_HOSE_M15486_20250912154229.pdf

COTERRA_MBU_3T_CFL_20_X_13.38_X_9.58_X_7_X_4.5_20250912154230.pdf

COTERRA_10K_PROD_TREE_20250912154230.pdf

BOP Diagram Attachment:

10M_BOP_DIAGRAM_20250912154240.pdf

10M_BOP_DIAGRAM_20250912154251.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1190	0	1190	2934	1744	1190	J-55	48	ST&C	1.44	3.36	BUOY	5.64	BUOY	5.64
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2500	0	2500	2935	434	2500	J-55	36	LT&C	1.57	2.73	BUOY	5.08	BUOY	5.08
3	PRODUCTION	8.75	7.0	NEW	API	N	0	9479	0	8887	2935	-5953	9479	P-110	26	BUTT	1.42	2.27	BUOY	69.7	BUOY	69.7
4	COMPLETION SYSTEM	6	4.5	NEW	API	N	8429	20266	8429	8887	-5495	-5953	11837	HCP-110	11.6	BUTT	2.01	2.44	BUOY	69.08	BUOY	69.08

Casing Attachments

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

8H_Casing_Assumptions_20250826152746.pdf

8H_Casing_Assumptions_20250915075456.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CONFIDENTIAL

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Casing Attachments

Casing ID: 4 **String** COMPLETION SYSTEM

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	890	577	1.72	13.5	992	45	Class C	Bentonite
SURFACE	Tail		890	1190	154	1.34	14.8	206	45	Class C	LCM
INTERMEDIATE	Lead		0	2200	441	1.88	12.9	829	59	35:65 (POZ C)	Salt, Bentonite
INTERMEDIATE	Tail		2200	2500	146	1.34	14.8	195	59	Class C	LCM
PRODUCTION	Lead		2200	8479	382	3.64	10.3	1390	25	Tuned Light	LCM
PRODUCTION	Tail		8479	9479	175	1.36	14.8	238	25	Class C	Retarder
COMPLETION SYSTEM	Lead		9379	20266	859	1.3	14.2	1116	10	50:50(POZ H)	salt, Bentonite, Fluid Loss, Dispersant, SMS

CONFIDENTIAL

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1190	OTHER : Fresh Water	7.83	8.33							
1190	2500	OTHER : Brine Water	9.5	10							
2500	9479	OTHER : Cut brine or OBM	9	9.5							
9479	20266	OIL-BASED MUD	9	9.5							

CONFIDENTIAL

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

No DST Planned. Logs will be run on the 5H.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4390 **Anticipated Surface Pressure:** 2434

Anticipated Bottom Hole Temperature(F): 159

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

H2S_PLAN_REV.0_20250826152847.pdf
H2S_PLAN_REV.0_20250912071542.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

_7_30_2025_5_27_23_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_20250826153002.pdf
_7_30_2025_5_27_23_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_Plot_20250826153002.pdf
_7_30_2025_5_27_24_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_AC_20250826153002.pdf
8H_Drilling_Plans_20250826153002.pdf
_7_30_2025_5_27_23_PM__Coterra_Energy___Riverbend_12_13_Federal_Com_8H_Plan_1_20250826153031.pdf

WELL_CONTROL_PLAN_REV.0_20250826153048.pdf
WELL_CONTROL_PLAN_REV.0_20250912071604.pdf
8H_Drilling_Plans_20250912071616.pdf
_7_30_2025_5_27_23_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_20250912071639.pdf
_7_30_2025_5_27_23_PM__Coterra_Energy___Riverbend_12_13_Federal_Com_8H_Plan_1_20250912071639.pdf

_7_30_2025_5_27_24_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_AC_20250912071640.pdf

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

_7_30_2025_5_27_23_PM__Riverbend_12_13_Federal_Com_8H___Plan_1_Plot_20250912071640.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250826153119.pdf
RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250826153119.pdf
Riverbend_12_13_8H_Natural_Gas_Plan_Cimarex_20250826153142.pdf
RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250912071706.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250912071706.pdf
Riverbend_12_13_8H_Natural_Gas_Plan_Cimarex_20250912071720.pdf

Other Variance request(s)?: Y

Other Variance attachment:

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250826153205.pdf
CHOKE_HOSE_M15486_20250826153205.pdf
NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250912071741.pdf
CHOKE_HOSE_M15486_20250912071742.pdf

CONFIDENTIAL

Standard New Mexico Variances

Variance Request #1: Skid Rig after Cementing Surface Casing

Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, and both lead and tail slurries have achieved 500 psi compressive strength. While cement cures, the surface casing of the subject well will be suspended in the well by a mandrel and landing ring system, which is independent from the rig and ensures that casing remains centered while the rig is active on other wells. Before skidding the rig, a TA cap is installed on the subject well.

Variance Request #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

Variance Request #4: Utilize Co-Flex Choke Line

Coterra requests approval to utilize a co-flex choke line between the BOP and choke manifold. Certification for the proposed co-flex choke line is attached. The choke line is not required by the manufacturer to be anchored. In the event the specific co-flex choke line is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

Standard New Mexico Variances

Variance Request #1: Skid Rig after Cementing Surface Casing

Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, and both lead and tail slurries have achieved 500 psi compressive strength. While cement cures, the surface casing of the subject well will be suspended in the well by a mandrel and landing ring system, which is independent from the rig and ensures that casing remains centered while the rig is active on other wells. Before skidding the rig, a TA cap is installed on the subject well.

Variance Request #3: Omit the DV Tool from the Intermediate Casing

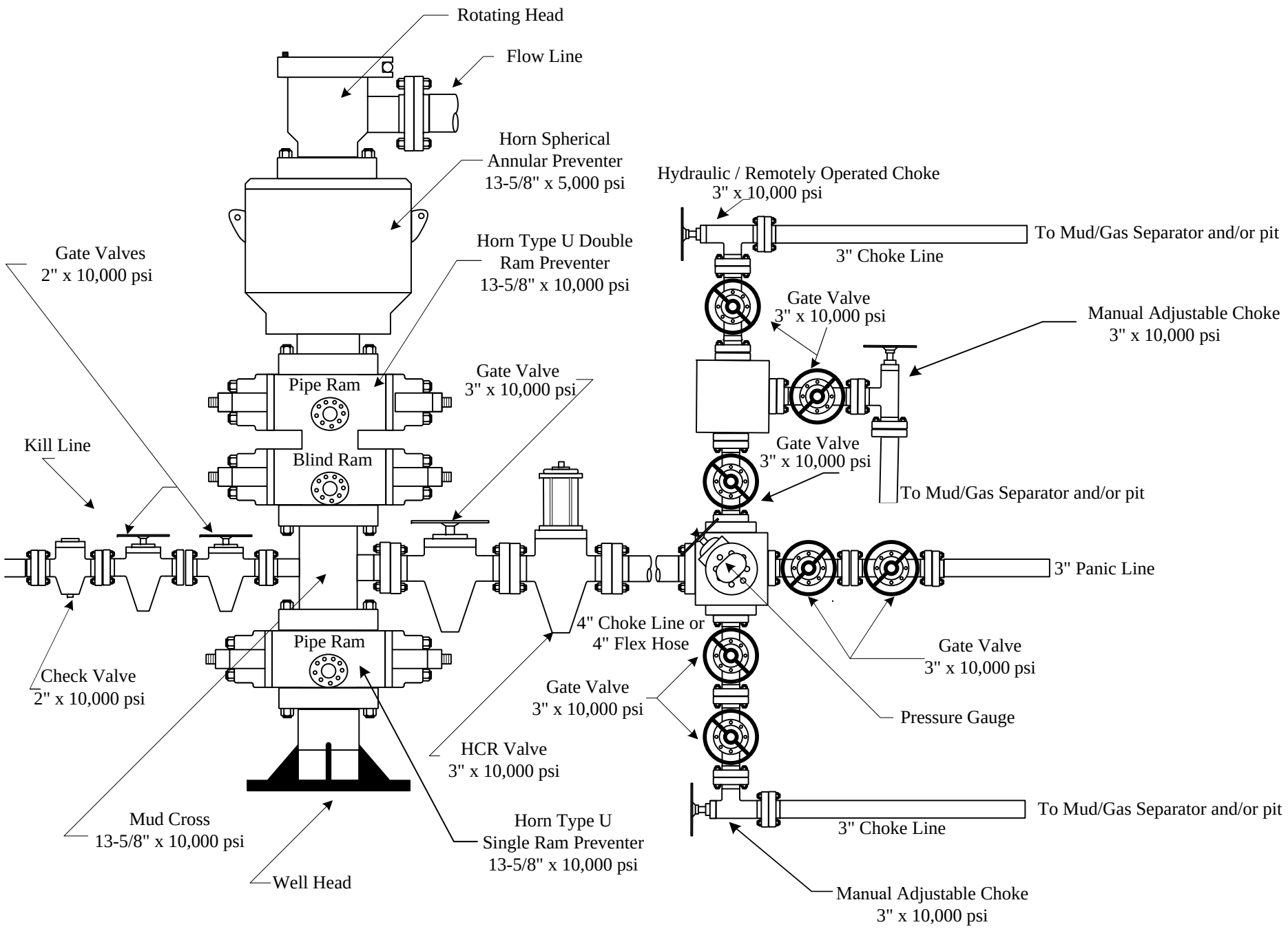
Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

Variance Request #4: Utilize Co-Flex Choke Line

Coterra requests approval to utilize a co-flex choke line between the BOP and choke manifold. Certification for the proposed co-flex choke line is attached. The choke line is not required by the manufacturer to be anchored. In the event the specific co-flex choke line is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

Released to Imaging: 1/8/2026 1:43:18 PM
Received by OCD: 11/13/2025 4:17:46 PM

COTERRA



AustinHOSE

CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B №: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3″×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items	Inspection results
Appearance Checking	In accordance with API Spec 16C 3rd edition
Size and Lengths	In accordance with API Spec 16C 3rd edition
Dimensions and Tolerances	In accordance with API Spec 16C 3rd edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 6A 21st edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 17D 3rd edition
Hydrostatic Testing	In accordance with API Spec 16C 3rd edition
product Marking	In accordance with API Spec 16C 3rd edition
Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition
Remarks	16C-0403

Approver	Jane C	Auditor	Alice D	Inspector	Leo W

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

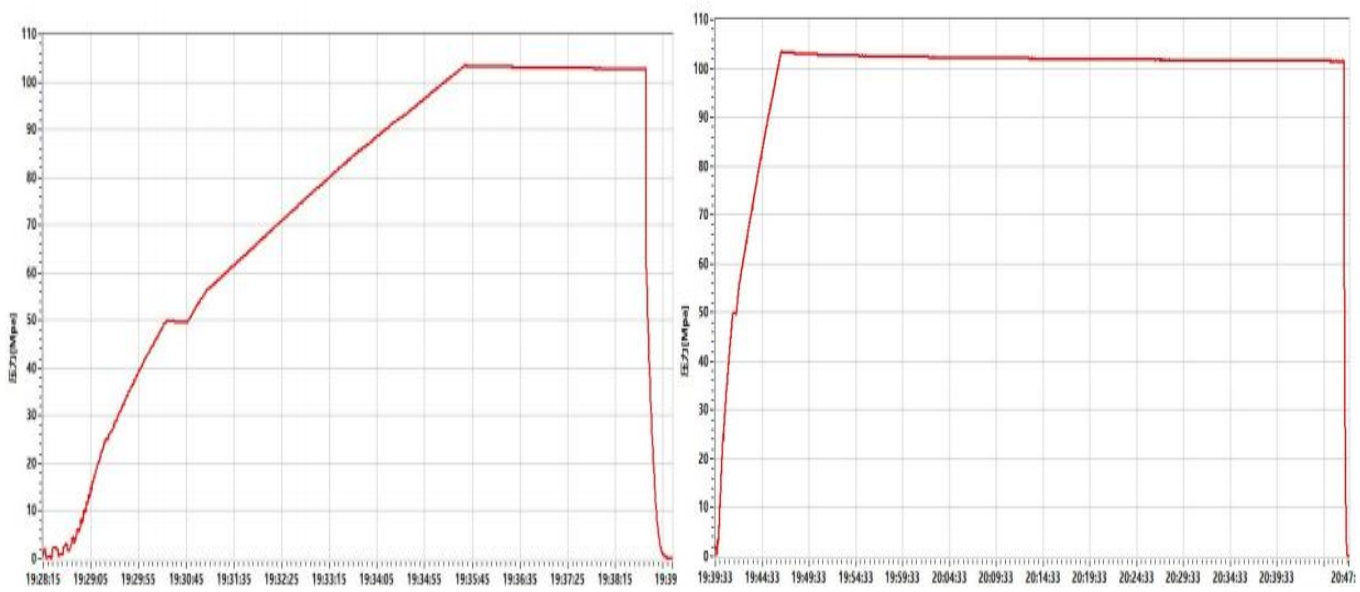
AustinHOSE

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28 №: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3rd edition
Product Specification	3″×10000psi×35ft（10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing：



Conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition 16C-0403				
Approver	Jane C	Auditor	Alice D	Inspector	Leo W

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

AustinHOSE

CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name：Choke And Kill Hose

Product Specification：3″×10000psi×35ft（10.67m）

Serial Number：VTC-7660257

customer number：PO890145-001

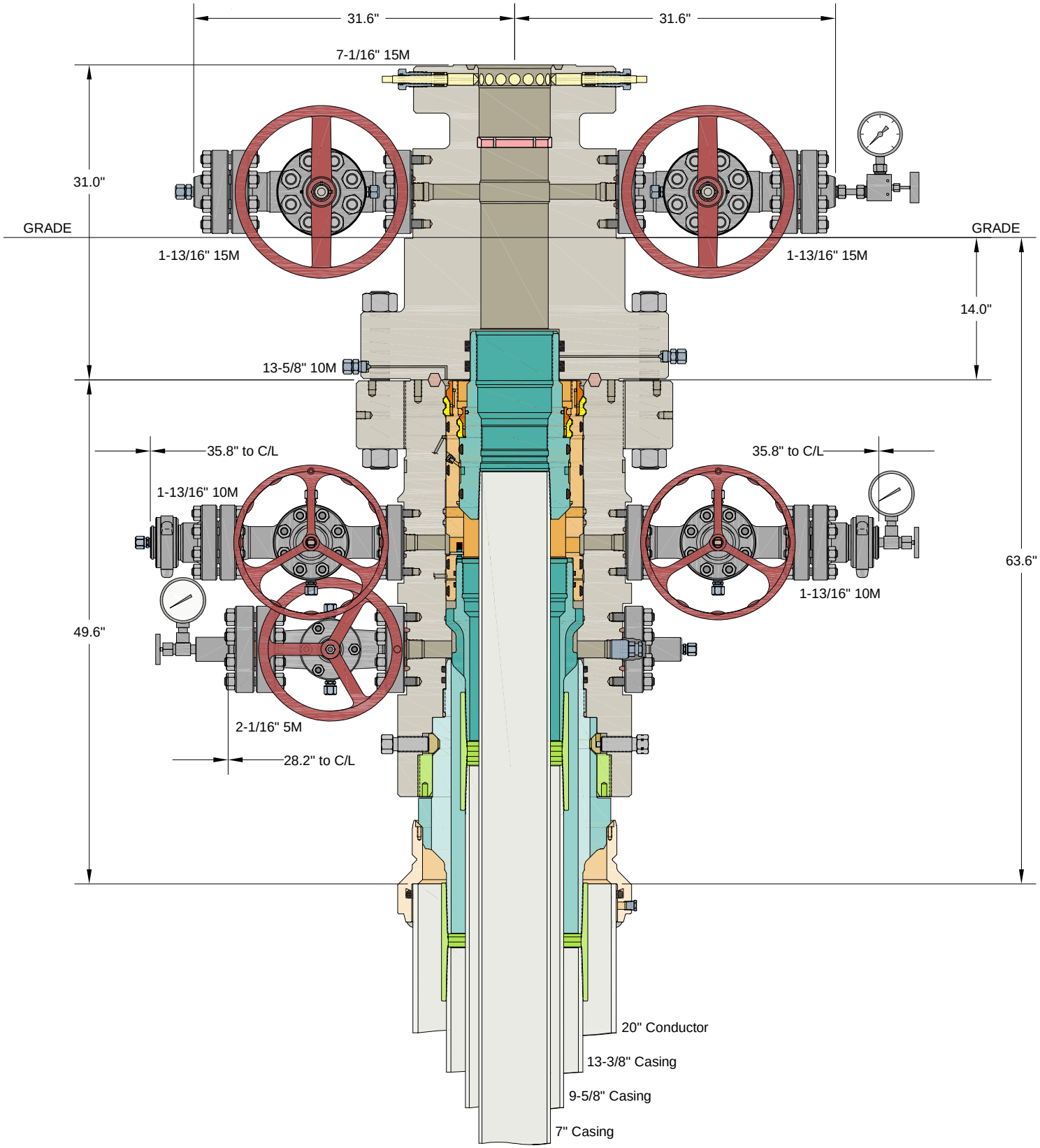
End Connections: 4-1/16″×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager： Jane C Date:Sep 3, 2024

16C-0403

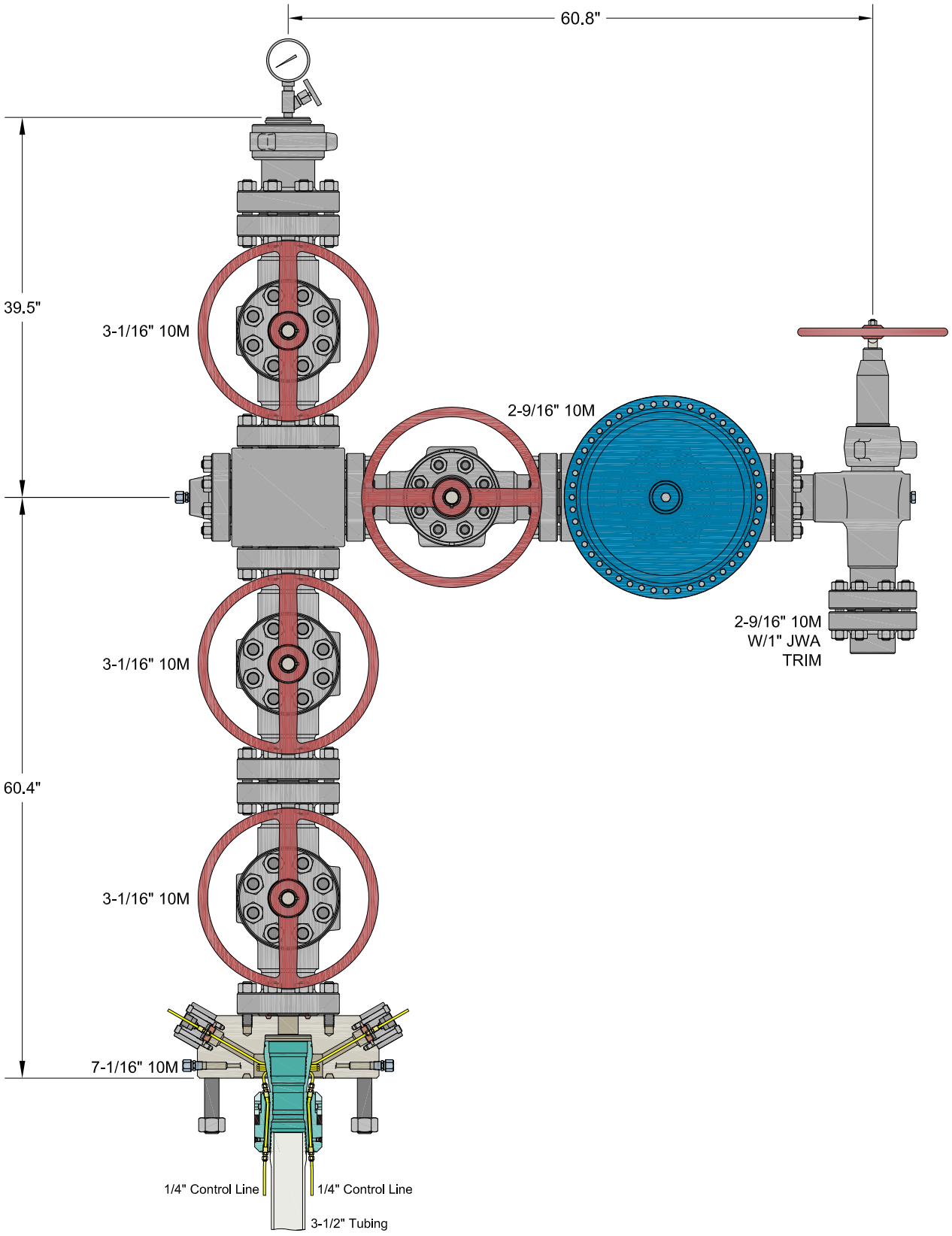
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	LETONE



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMAT

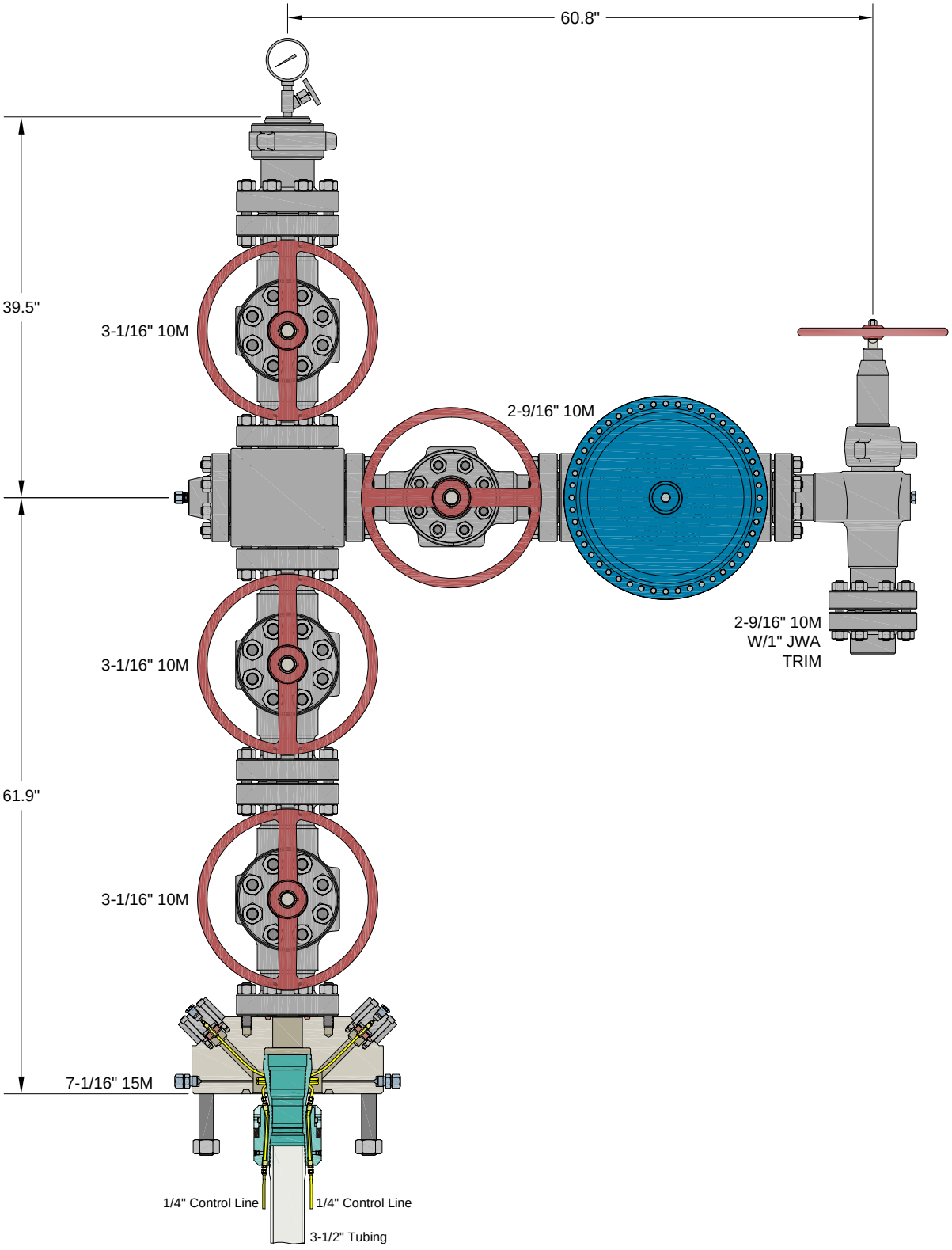
CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM
20" x 13-3/8" x 9-5/8" x 7" MBU-3T-CFL-R-DBLO-SF Wellhead Sys. With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8" Fluted & 7" One Piece Mandrel Casing Hangers	DRAWN VJK 01FEB24 APPRV DRAWING NO. HBE0001053



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM	
7-1/16" 10M x 3-1/16" x 2-9/16" 10M Production Tree Assembly With 7-1/16" 10M x 3-1/16" 10M T40-CCL Tubing Head Adapter And 7-1/16" 3-1/2" T40-CCL Tubing Hanger	DRAWN	VJK 05SEP23
	APPRV	
	DRAWING NO.	HBE0001018



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMAT

CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM
7-1/16" 15M x 3-1/16" x 2-9/16" 10M Production Tree Assembly With 7-1/16" 15M x 3-1/16" 10M T40-CCL Tubing Head Adapter And 7-1/16" 3-1/2" T40-CCL Tubing Hanger	DRAWN VJK 13DEC23 APPRV DRAWING NO. HBE0001018

Cactus

Quotation

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

Bill To: 7050

CIMAREX
ATTN: DAVID SHAW
202 S CHEYENNE AVENUE SUITE 1000
TULSA OK 74103
US

Ship To: 1016

2023 PRICING REVIEW
202 S Cheyenne Ave Ste 1000
Tulsa OK 74103-3001
US

	Quantity	Price	Ext Price

CIMAREX

HOBBS, NM

PRODUCTION TREE ASSEMBLY
7-1/16" 10M X 3-1/16" 10M X 2-9/16" 10M
OPTIONAL 15M ADAPTER

QUOTATION SUMMARY:

- PRODUCTION TREE ASSEMBLY - $49,338.02

CACTUS CONTACT:
RILEY STAFFORD / MIKE SPINKS
OFFICE: 405.708.7217 (RILEY) / 713.396.5762 (MIKE)
MOBILE: 405.445.2222 (RILEY) / 832.691.7724 (MIKE)
EMAIL: riley.stafford@cactuswellhead.com / mike.spinks@cactuswellhead.com

DUE TO VOLATILITY IN THE STEEL MARKET, PRICING FOR ITEMS MADE FROM NICKEL ALLOYS (EX. 410SS, 17-4PHSS, INCONEL, ETC.) WILL BE VALID FOR TWO WEEKS. CW WILL REVIEW AND ADJUST, IF NECESSARY, AT ORDER PLACEMENT.

PREMIUM THREADED CASING HANGERS/RUNNING TOOLS & CUSTOMER SPECIFIC EQUIPMENT ARE NON-CANCELABLE AND MAY REQUIRE A PURCHASE ORDER (PO) PRIOR TO MANUFACTURING.

SUPPLY CHAIN PRICING IS BASED UPON A 135 DAY DELIVERY ARO. EXPEDITED PRICING CAN BE PROVIDED UPON REQUEST. PRICES ARE F.O.B. CACTUS BOSSIER CITY, LA. THE FOLLOWING QUOTATION DOES NOT INCLUDE APPLICABLE MILEAGE AND SERVICE CHARGES THAT MAY BE CHARGED AT TIME OF INVOICING.

Cactus

Quotation

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

		Quantity	Price	Ext Price
	PRODUCTION TREE ASSEMBLY			
1	124314P2	1.00	4,830.00	4,830.00
	ADPT,TBGHD,CW,T40-CCL,7-1/16 10M STD X 3-1/16 10M STD,W/TWO #14 DHCV W/1/4 LP INLETS,10000 PSI MAX WP,TEMP PU,MATL EE,PSL2,PR2			
2	120242MV	1.00	4,343.00	4,343.00
	VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)			
3	120242MV	1.00	4,343.00	4,343.00
	VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)			
4	128365	1.00	2,650.00	2,650.00
	CRSS,STD,AOZE,3-1/16 10M X 2-9/16 10M,6A-LU-EE-3			
5	120242MV	1.00	4,343.00	4,343.00
	VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)			
6	142800	1.00	1,270.00	1,270.00
	TREECAP,NEWAY,BHTA,B15A,3-1/16 10M X 3-1/2 EU ILT,W/1/2 NPT & 3.06 MIN BORE,MONOGRAMMED,TEMP PU,MATL EE,PSL2			
7	BX154	5.00	10.44	52.20
	RING GASKET,BX154,3-1/16 10/15/20M			
8	780077-20E1	16.00	19.83	317.28
	STUD,ALL-THD W/2 HVY HEX NUTS,BLK,1-8UNC X 7,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING			
9	132879	1.00	495.00	495.00
	FLG,BLIND,AOZE,3-1/16 10M X 1/2 NPT,W/HUB,TEMP LU,MATL EE,PSL3			
10	100048	1.00	59.74	59.74
	FTG,GRS,VENTED CAP,1/2 NPT,4140 -50F W/ELECTROLESS NICKEL COATING NACE,K-MONEL BALL,INCONEL X-750 SPRING			
11	115900MV	1.00	3,285.00	3,285.00
	VLV,CW,SB100,2-9/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL2 PR2) QPQ TRIM, API 6A PR2 ANNEX F (BORE VENT HOLE)			
12	128567	1.00	8,292.00	8,292.00
	VLV/ACT,OMNI,FS-R,2-9/16 10M FE EE HF C/W MODEL DX-18 DIAPHRAGM PNEUMATIC ACTUATOR, FORGED BODY, REVERSE ACTING SLAB GATE, FLOATING SEATS & DIRECTIONAL FLOW BODY BUSHING (FLOW FROM RIGHT TO LEFT): MAT'L CLASS EE, HARDFACE TRIM, TEMP PU (-20 TO 250 F), PSL-2, PR-2; ACTUATOR: MATERIAL CLASS BB, TEMP P (-20F TO 180F) PR-2 (FC TYPE) W/MANUAL OVERRIDE,ACTUATOR REQUIRES 112 PSI TO OPEN AT FULL 10,000 PSI			
13	130652	1.00	7,500.00	7,500.00
	CHOKE,ADJ,HOE,H2,2-9/16 10M FE X FE ALLOY BDY,3" NOMINAL,W/ 2" SSTC TRIM,H2S SERVICE,API MONOGRAMMED,PSL-2 PR-2 TEMP-PU MATL-EE-1.5			
14	120734	1.00	399.00	399.00
	FLG,COMP,AOZE,2-9/16 10M X 2-7/8 EU,5000 PSI MAX WP,TEMP LU,PSL3,PR1			

Cactus

Quotation

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

			Quantity	Price	Ext Price
15	BX153		5.00	11.54	57.70
	RING GASKET,BX153,2-9/16 10/15/20M				
16	780067-20E1		24.00	14.70	352.80
	STUD,ALL-THD W/2 HVY HEX NUTS,BLK,7/8-9UNC X 6-1/2,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING				
17	135166		1.00	4,490.00	4,490.00
	TBGHGR,CW,T40-CCL,7-1/16 X 3-1/2 EU API MOD BOX BTM X 3-1/2 EU BOX TOP,W/3 HBPV THD,W/ TWO 1/4 CCL & DOVETAIL SEAL,CF 124316P2,10000 PSI MAX WP,17-4PH SS,TEMP PU,MATL FF-0,5,PSL2,PR2				
18	BX156		1.00	62.48	62.48
	RING GASKET,BX156,7-1/16 10/15/20M				
19	NVS		1.00	61.16	61.16
	NEEDLE VALVE,MFS,1/2 NPT MXF,10M PSI WP,CARBON STEEL BODY, 304/316SS STEM, TFE PACKING (NON-NACE)				
20	PG10M		1.00	58.24	58.24
	PRESSURE GAUGE,10M,4-1/2 FACE, LIQUID FILLED,1/2 NPT				
21	PRO	Prorata Freight	0.75	2,768.56	2,076.42
					49,338.02

OPTIONAL 15M ADAPTER

22	124999P2		0.00	7,423.00	0.00
	ADPT,TBGHD,CW,T40-CCL,7-1/16 15M STD X 3-1/16 10M STD,W/TWO #14 DHCV W/1/4 NPT INLET,10000 PSI MAX WP,TEMP PU,MAT'L EE,PSL2,PR2				
					0.00

INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

For Acceptance of this Quotation
Please Contact Ph: 713-626-8800
sales@cactuswellhead.com

Matl:	47,261.60
Labor:	0.00
Misc:	2,076.42
Sales Tax:	0.00
Total:	49,338.02

Cactus

Quotation

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

CACTUS WELLHEAD, LLC PURCHASE TERMS AND CONDITIONS

1. **ACCEPTANCE**: Acceptance of Cactus Wellhead, LLC (herein: Company) Purchase Terms and Conditions (herein: CACTUS Purchase Terms) shall be deemed effective upon shipment of the Products and/or rendering of Services which are the subject of an order by Customer (defined as the party purchasing CACTUS Products and or Services referred on the invoice). Any proposal made by Customer for additional or different terms and conditions or any attempt by Customer to vary in any degree any of the terms and conditions of CACTUS Purchase Terms is hereby rejected.

2. **PRICING**. Each Product and Service shall be invoiced at (and Customer shall pay) the respective price shown on the reverse side hereof, or if no price is shown on the reverse side hereof, at the price shown in the current price list of Company. In addition, Customer shall pay any and all additional charges for mileage, transportation, freight, packing and other related charges, as well as any federal, state or local tax, excise, or charge applicable on the sale, transportation, or use of Products and Services, unless otherwise specified.

3. **TERMS OF PAYMENT**. Customer agrees to pay Company any and all payments due on or before thirty (30) days from invoice date at the designated address of Company. Amounts unpaid after such thirty (30) day period shall bear interest at the lesser of (i) one and one-half percent (1½%) per month or (ii) the maximum rate allowed by law. Customer shall also pay any and all of Company's attorney's fees and court costs if any amounts hereunder are collected by an attorney or through legal proceedings. Company reserves the right, among other remedies, either to terminate this agreement or to suspend further deliveries upon failure of Customer to make any payment as provided herein.

4. **LIMITED WARRANTY**. COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS FOR PURPOSE, DESCRIPTION, QUALITY, PRODUCTIVENESS, ACCURACY OR ANY OTHER MATTER WITH RESPECT TO PRODUCTS OR SERVICES, ALL SUCH WARRANTIES BEING HEREBY SPECIFICALLY AND EXPRESSLY DISCLAIMED BY COMPANY. COMPANY MAY OFFER TECHNICAL ADVICE OR ASSISTANCE WITH REGARD TO THE PRODUCTS AND SERVICES BASED ON LABORATORY AND/OR FIELD EXPERIENCE AND CUSTOMER UNDERSTANDS AND AGREES THAT SUCH ADVICE REPRESENTS ONLY GOOD FAITH OPINIONS AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. THE SOLE AND EXPRESS WARRANTY PROVIDED BY COMPANY IS TO WARRANT THAT THE PRODUCTS SOLD AS LISTED ON THE REVERSE SIDE HEREOF COMPLY WITH COMPANY'S SOLE SPECIFICATION AT THE DATE AND TIME OF MANUFACTURE. COMPANY MAKES NO WARRANTY THAT SUCH PRODUCTS SHALL MEET SUCH SPECIFICATION AT ANY TIME AFTER SHIPMENT OF PRODUCTS. USE OF SUCH PRODUCTS IS SPECIFICALLY NOT WARRANTED.

5. **REMEDY**. The exclusive remedy for this warranty for Products shall be limited to, in Company's sole discretion and judgment, the replacement of defective part(s), F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer), or repair of defective part(s). . The exclusive remedy for this warranty for Services shall be limited to the repeat of Services performed F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer). Any such repeat of Services or replacement or repair of Products shall not include any materials not sold by Company hereunder, and specifically excludes any obligation by Company related to other property of the Customer or any property of third parties. Provided, however, Company may in its sole discretion, decide to instead give Customer credit memorandum for the amounts already paid by Customer to Company for such Product or Service. IN ANY EVENT AND NOTWITHSTANDING THE LANGUAGE TO THE CONTRARY HEREIN, CUSTOMER ACKNOWLEDGES THAT ANY CLAIM IT MAY HAVE ARISING OUT OF OR IN CONNECTION WITH ANY ORIGINAL PRODUCTS AND SERVICES, ANY REPLACEMENT PRODUCTS OR REPEAT OF SERVICES AND THESE CACTUS PURCHASE TERMS SHALL BE LIMITED TO AND NOT EXCEED THE AMOUNT CUSTOMER HAS ACTUALLY PAID TO COMPANY FOR SUCH PRODUCTS AND/OR SERVICES PURSUANT HERETO. If Customer fails to make any such claim within thirty (30) days after completion of Service or delivery of Products, Customer hereby waives (to the extent permitted by applicable law) any and all claims it may or does have with respect to such Products and Services. Unless Customer is an authorized reseller of Company, Company's liability in connection with Products and Services shall extend only to Customer. CUSTOMER HEREBY INDEMNIFIES AND HOLDS COMPANY (AND ITS AGENTS, REPRESENTATIVES, OFFICERS DIRECTORS AND EMPLOYEES) HARMLESS FOR ANY LOSS, EXPENSE OR DAMAGE (WHETHER OF CUSTOMER OR OF ANY THIRD PARTY) ARISING FROM OR IN CONNECTION WITH PRODUCTS AND SERVICES, INCLUDING WITHOUT LIMITATION ANY FAILURE OF SUCH PRODUCTS AND SERVICES TO CONFORM TO CUSTOMER'S ORDER OR SPECIFICATION OR ANY OTHER STANDARD, OR ANY NEGLIGENCE OR BREACH OF WARRANTY BY COMPANY WITH RESPECT TO ANYTHING DONE OR FAILED TO HAVE BEEN DONE BY COMPANY, IF AND TO THE EXTENT THAT SUCH LOSS, EXPENSE OR DAMAGE EXCEEDS THE AMOUNT CUSTOMER HAS ACTUALLY PAID COMPANY PURSUANT HERETO FOR SUCH PRODUCTS OR SERVICES.

6. **INSPECTION**. The results of any inspection or testing reported by the Company to Customer represents only good faith opinions and are not to be construed as warranties or guarantees of the quality, classification, merchantability, fitness for purpose, condition, or liability of any equipment or material that has been inspected or tested by the Company.

7. **INSURANCE**. Each party agrees to maintain comprehensive general liability insurance in the amount of $1,000,000 each occurrence, $2,000,000 general aggregate, and Workers Compensation insurance per statutory requirements providing coverage for the indemnity obligations in this agreement. The Company (and such of its affiliates as it shall designate) including their officers, directors, members, shareholders, partners, joint ventures, employees, agents and representatives shall be named as additional insureds under the policies of Customer on a primary basis to the extent of its indemnification obligations set forth in these CACTUS Purchase Terms, and the policies shall also provide a waiver of subrogation rights in favor of the Company (and such of its affiliates as it shall designate) and their officers, directors, members, shareholders, employees, agents and representatives. The provisions of this Section 7 shall apply and the obligation to maintain insurance of each party in the coverages and amounts set forth herein shall remain in force regardless and independent of the validity or enforceability of the indemnity provisions of Section 8, below; the obligation to obtain insurance is a separate and independent obligation. If the insurance required herein is more or less than allowed by prevailing law, the indemnity obligations in Section 8 below shall be effective only to the maximum extent permitted under applicable law.

8. **INDEMNIFICATION**. The following indemnifications and releases of liability will apply to any Products or Services provided under this contract. COMPANY AND CUSTOMER EXPRESSLY AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE INDEMNITIES AND DISCLAIMERS OF WARRANTIES CONTAINED HEREIN ARE "CONSPICUOUS."

A. **Customer Indemnity Obligations**. Customer hereby releases Company from any liability for, and shall protect, defend, indemnify, and hold harmless Company, its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, insurers, and consultants (specifically excluding any member of Customer Group) of all of the foregoing, and its and their respective successors, heirs and assigns ("Company Group") from and against all costs (including the payment of reasonable attorneys' fees), losses, liabilities, demands, causes of action, damages, or claims of every type and character ("Claims"), arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of Customer its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, customers, insurers, invitees and consultants of all of the foregoing, and its and their respective successors, heirs and assigns ("Customer Group"), or (ii) loss of or damage to any property of any member of Customer Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.

B. **Company Indemnity Obligations**. Company hereby releases Customer from any liability for, and shall protect, defend, indemnify, and hold harmless Customer from and against all Claims arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of any member of Company Group, or (ii) loss of or damage to any property of any member of Company Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF CUSTOMER GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.

C. **Third Party Claims**. Notwithstanding the foregoing, to the extent of its negligence, Company and Customer shall each indemnify, defend and hold harmless from and against all Claims, of every type and character, which are asserted by third parties for bodily injury, death or loss or destruction of property or interests in property in any manner caused by, directly or indirectly resulting from, incident to, connected with or arising out of the work to be performed, Services to be rendered or Products or materials furnished to Customer. When personal injury, death or loss of or damage to property is the result of joint or concurrent negligence of Customer and Company, the indemnitor's duty of indemnification shall be in proportion to its allocable share of such negligence.

D. **Pollution**. Company agrees that it shall be totally responsible for, and shall protect, defend and indemnify, Customer for all losses, damages, claims, demands, costs, charges, and other expenses, including attorneys' fees, for any and all waste and/or hazardous substances which are in Company Group's exclusive possession and control and directly associated with Company Group's equipment and facilities, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF CUSTOMER GROUP. Customer shall assume all responsibility for, including control and removal of, and shall protect, defend and indemnify Company Group from and against all Claims arising directly or indirectly from all other pollution or contamination which may occur during the conduct of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other uncontrolled flow of oil, gas, water or other substance, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF COMPANY GROUP.

E. **Wild Well**. Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group for any damages, expenses, losses, fines, penalties, costs, expert fees and attorneys' fees arising out of a fire, blow out, cratering, seepage or wild well, including regaining control thereof, debris removal and property restoration and remediation. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.

F. **Underground Damage**. Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group from and against any and all claims, liability and expenses resulting from operations related to the work under this agreement on account of injury to, destruction of, or loss or impairment of any property right in or to oil, gas or other mineral substance or water, if at the time of the act or omission causing such injury, destruction, loss or impairment said substance and not been reduced to physical possession above the surface of the earth, and for any loss or damage to any formation, strata, or reservoir beneath the surface of the earth. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.

G. The foregoing indemnities set forth in these CACTUS Purchase Terms are intended to be enforceable against the parties hereto in accordance with the express terms and scope hereof notwithstanding Texas' Express Negligence Rule or any similar directive that would prohibit or otherwise limit indemnities because of the negligence (whether sole, concurrent, active or passive, ordinary or gross) or other fault or strict liability of Company or Customer.

H. If a claim is asserted against one of the parties to this agreement which may give rise to a claim for indemnity against the other party hereto, the party against whom the claim is first asserted must notify the potential indemnitor in writing and give the potential indemnitor the right to defend or assist in the defense of the claim.

9. **RISK OF LOSS**.

A. Title and risk of loss shall pass to Customer upon delivery as specified in Article 11. Customer's receipt of any material delivered hereunder shall be an unqualified acceptance of, and a waiver by Customer of any and all claims with respect to, such material unless Customer gives Company written notice of claim within thirty (30) days after such receipt. Notwithstanding the foregoing, installation or use of materials or equipment shall unequivocally constitute irrevocable acceptance of said materials. Customer assumes all risk and liability for the results obtained by the use of any material or Products delivered hereunder in work performed by on behalf of Customer or in combination with other or substances. No claim of any kind, whether as to material delivered or for non-delivery of material, and whether or not based on negligence, shall be greater in amount than the purchase price of the

Cactus

Quotation

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

material in respect of which such claim is made.

B. For Services, Company shall not be liable for loss or deterioration of any equipment and material of Customer under Company's control or stored on Company's premises after Company has completed its work if such loss or deterioration results from atmospheric condition, Act of God or other occurrence not within the reasonable control of Company.

10. **TERMINATION**. Company reserves the right to terminate the order at issue, or any part hereof, solely for its convenience at any time without cause with notice to Customer. Company shall have the right to cancel any unfilled order without notice to Customer in the event that Customer becomes insolvent, adjudicated bankrupt, petitions for or consents to any relief under any bankruptcy reorganization statute, violates a term of these CACTUS Purchase Terms, or is unable to meet its financial obligations in the normal course of business. In the event of such termination, Company shall immediately stop all work hereunder. Prior to delivery, Customer may terminate this order without cause upon thirty (30) day notice in writing to Company. In the event of such termination, Company at its sole option shall cease work up to thirty (30) days after such notice. Upon the cessation of work, Customer agrees to pay Company a reasonable termination charge consisting of a percentage of the Invoice price, such percentage to reflect the value of the Products, Services or work in progress completed upon the cessation of work. Customer shall also pay promptly to Company any costs incurred due to paying and settling claims of Company's vendors or subcontractors arising out of the termination of the order by Customer.

11. **DELIVERY**. Unless different terms are provided on the face of this order, all items are sold FOB Company's manufacturing facility in Bossier City, LA., and Customer shall bear the cost of transportation to any other named destination. Upon notification of Company of delivery, Customer shall become liable and shall bear all risk of loss associated with the Products at issues regardless of whether the Products are at a location controlled by Company and whether or not caused by the negligence of Company. In the case of Customer pick-up, the truck furnished by Customer is the destination and Company's obligations regarding shipments are fulfilled when the Products are loaded on the truck. Items to be shipped to any other destination outside of the United States are sold FOB port of shipment (Customer will deliver and bear the cost of transportation to the named port and will bear the cost of transportation thereafter to the final destination). The means of shipment and carrier to the point at which Company's liability for transportation costs ceases shall be chosen by Company. Excess packing, marking, shipping, and transportation charges resulting from compliance with Customer's request shall be for Customer's account. Unless otherwise agreed in writing, delivery time is not of the essence.

12. **RETURNS/REFUND**. Within ninety (90) days of delivery, Customer has the option to return any non-defective Products (any Products found to be defective will be subject to the warranty and remedies expressed in paragraphs four (4) and five (5) above). Customer shall bear all costs of shipment and/or transportation for such return and risk of loss for the returned Products shall remain with Customer until re-delivered to Company's Yard. Customer shall receive a full refund for any returns, less a twenty percent (20%) restocking fee. Company at all times reserves the right to designate certain Products as non-refundable in Company's Sales Quote or Sales Order. In addition, any made-to-order , special order, and/or Product manufactured to Customer specifications are NOT returnable.

13. **DELAYS**. If a specific shipping date is either not given or is estimated only, and is not promised on the face of this order or in a separate writing signed by Company, Company will not be responsible for delays in filling this order nor liable for any loss or damages resulting from such delays. If a specific shipping date is promised, Company will not be liable for delays resulting from causes beyond Company's control, including without limitation accidents to machinery, fire, flood, act of God or other casualty, vendor delays, labor disputes, labor shortages, lack of transportation facilities, priorities required by, requested by, or granted for the benefit of any governmental agency, or restrictions imposed by law or governmental regulation.

14. **LIMITATION OF DAMAGES**. Notwithstanding any other provision contained herein, Company shall not be liable to Customer Group or any third party for consequential (whether direct or indirect damages), indirect, incidental, special or punitive damages, howsoever arising, including, but not limited to loss of profits (whether direct or indirect damages), revenues, production or business opportunities, WHETHER OR NOT SUCH LOSSES ARE THE RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE (WHETHER SOLE, JOINT, CONCURRENT OR COMPARATIVE, ACTIVE OR PASSIVE, ORDINARY OR GROSS) OF COMPANY GROUP, OR ANY DEFECT IN THE PREMISES, PRE-EXISTING CONDITIONS, PATENT OR LATENT, BREACH OF STATUTORY DUTY, STRICT LIABILITY OR ANY OTHER THEORY OF LEGAL LIABILITY OF COMPANY GROUP (EXCLUDING ONLY LOSSES CAUSED BY THE WILLFUL MISCONDUCT OF COMPANY GROUP).

15. **SECURITY INTEREST**. Customer grants Company, and Company reserves, a security interest, covering all Customer's obligations under these terms (including any liability for breach of Customer's obligations), and applying to all of Customer's right, title, and interest in the Leased Equipment, together with all accessions thereto and any proceeds that may arise in connection with the sale or disposition thereof. Customer shall cooperate with Company in the filing of Financing Statements to perfect such security interest. Furthermore, Customer authorizes Company to execute and file Financing Statements without Customer's signature in any jurisdiction in which such procedure is authorized. Customer warrants, covenants and agrees that it will not, without prior written consent of Company, sell, contract to sell, lease, encumber, or dispose of the Leased Equipment or any interest in it until all obligations secured by this security interest have been fully satisfied.

16. **PATENT AND INTELLECTUAL PROPERTY**. The sale of any Products hereunder does not convey any intellectual property license by implication, estoppel or otherwise regarding the Products. Company retains the copyright in all documents, catalogs and plans supplied to Customer pursuant to or ancillary to the contract. Unless otherwise agreed in writing, Customer shall obtain no intellectual property interest in any Company Product.

17. **TAXES**. Unless otherwise specifically provided for herein, Customer shall be liable for all federal, state, or local taxes or import duties assessed by any governmental entity of any jurisdiction in connection with the Products or Services furnished hereunder.

18. **DECEPTIVE TRADE PRACTICES**. Customer acknowledges the application of Section 17.45(4) of the Texas Deceptive Trade Practices Act (Texas Business Commission Code §17.41 et. seq.) (the "Act") to any transaction contemplated hereby and represents that it is not a "consumer" for the purposes of the Act.

19. **NO WAIVER**. Failure to enforce any or all of the provisions in these CACTUS Purchase Terms in any particular instance shall not constitute or be deemed to constitute a waiver of or preclude subsequent enforcement of the same provision or any other provision of these CACTUS Purchase Terms. Should any provision of these CACTUS Purchase Terms be declared invalid or unenforceable all other provisions of these CACTUS Purchase Terms shall remain in full force and effect.

20. **CHOICE OF LAW**. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND SHALL BE PERFORMABLE IN HARRIS COUNTY, TEXAS. WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPALS AND WAIVER OF SAME, EACH PARTY HERETO SUBMITS TO THE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS IN HARRIS COUNTY, TEXAS AND THE FEDERAL COURTS IN AND FOR THE SOUTHERN DISTRICT OF TEXAS SITTING IN HOUSTON, TEXAS IN CONNECTION WITH ANY DISPUTE ARISING UNDER THIS AGREEMENT OR ANY DOCUMENT OR INSTRUMENT ENTERED INTO IN CONNECTION HEREWITH.

21. **AUTHORITY**. Customer warrants and represents that the individual receiving this order at issue on behalf of Customer has the authority to enter into these CACTUS Purchase Terms on behalf of Customer, and that upon receipt these CACTUS Purchase Terms shall be binding upon Customer.

22. **FORCE MAJEURE**. If Company is unable to carry out its obligations hereunder by reason of force majeure, then upon Company's giving of notice and reasonably full particulars of such force majeure in writing to Customer, Company's obligations that are affected by force majeure shall be suspended during the continuance of the force majeure and Company shall not be liable to Customer for any damages incurred by the Customer as a result thereof.

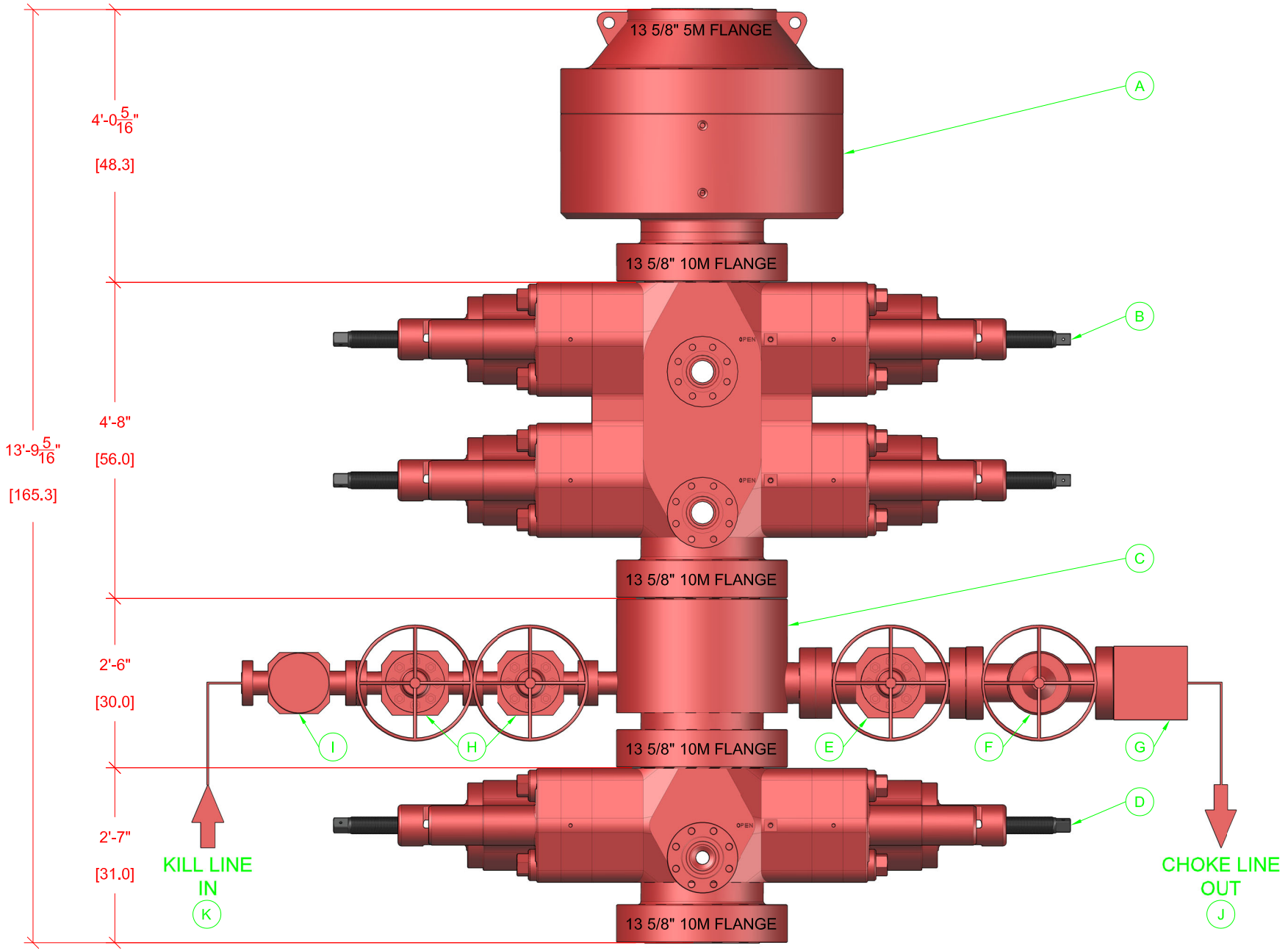
23. **CONFIDENTIALITY**. Customer acknowledges the highly secret and valuable nature of all proprietary inventions, methods, processes, designs, know-how, and trade secrets embodied in the Company's equipment, Products and Services and its components (hereinafter referred to as "Confidential Data"). Accordingly, Customer agrees not to disclose or use any Confidential Data. Customer further agrees to take any and all necessary precautions to prevent disclosure of the Confidential Data associated with the Company's equipment, Products and Services and components thereof to persons other than those employees of Customer for whom such disclosure is necessary for performance of the work hereunder.

24. **COMPLIANCE**. Customer expressly agrees to comply with and abide by, all of the laws of the United States and of the State of Texas, including, but not limited to, OSHA, EPA and all rules and regulations now existing or that may be hereafter promulgated under and in accordance with any such law or laws, and hereby agrees to indemnify and hold Company harmless from any and all claims, demands, or damages incurred by Company arising from Customer's failure to comply with all laws and governmental regulations. The indemnities in this paragraph shall be in addition to any other indemnity obligations between Customer and Company, including any other indemnity obligations contained herein.

Page 89 of 330

Received by OCD: 11/13/2025 4:17:46 PM

Released to Imaging: 1/8/2026 1:43:18 PM

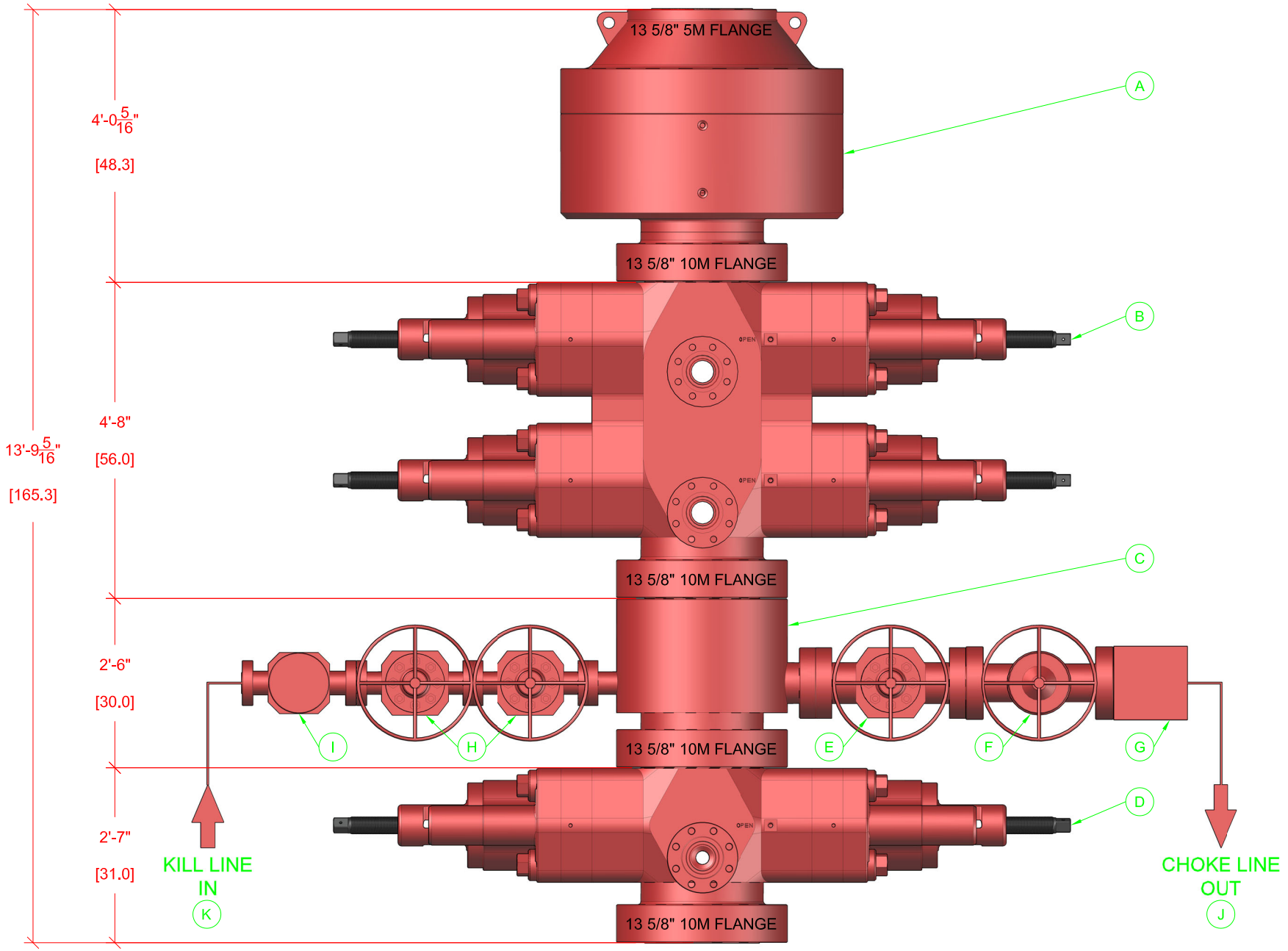


BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1
MUD CROSS	13 5/8" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1
GATE VALVE	4 1/16" 10M FC MANUAL	1
HCR VALVE	4 1/16" 10M HCR	1

ITEM	DESCRIPTION	MODEL	QTY
G	STUDDED BLOCK	4 1/16" 10M	1
H	GATE VALE	2 1/16" 10M FC MANUAL	2
I	CHECK VALVE	2 1/16" 10M	1
J	CHOKE HOSE	4 1/16" 10M	1
K	KILL HOSE	2 1/16" 10M	1
L			

Page 90 of 330



BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1
MUD CROSS	13 5/8" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1
GATE VALVE	4 1/16" 10M FC MANUAL	1
HCR VALVE	4 1/16" 10M HCR	1

ITEM	DESCRIPTION	MODEL	QTY
G	STUDDED BLOCK	4 1/16" 10M	1
H	GATE VALE	2 1/16" 10M FC MANUAL	2
I	CHECK VALVE	2 1/16" 10M	1
J	CHOKE HOSE	4 1/16" 10M	1
K	KILL HOSE	2 1/16" 10M	1
L			

Received by OCD: 11/13/2025 4:17:46 PM

Released to Imaging: 1/8/2026 1:43:18 PM

1. Geological Formations

TVD of target 8,887
MD at TD 20,266

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2679	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
2nd Bone Spring Sand	8048	Hydrocarbons	
3rd Bone Spring Carb	8541	Hydrocarbons	
3rd Bone Spring Carb - Harkey	8807	Hydrocarbons	
3rd Bone Spring Carb - Harkey - Target	8887	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2479	9-5/8"	36.00	J-55	LT&C	1.57	2.73	5.08
8 3/4	0	8429								
8 3/4	8429	9479	8887	7"	26.00	P-110	BT&C	1.42	2.27	69.70
6	8429	20266	8887	4-1/2"	11.60	HCP-110	BT&C	2.01	2.44	69.08
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

1. Geological Formations

TVD of target 8,887
MD at TD 20,266

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2679	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
2nd Bone Spring Sand	8048	Hydrocarbons	
3rd Bone Spring Carb	8541	Hydrocarbons	
3rd Bone Spring Carb - Harkey	8807	Hydrocarbons	
3rd Bone Spring Carb - Harkey - Target	8887	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2479	9-5/8"	36.00	J-55	LT&C	1.57	2.73	5.08
8 3/4	0	8429								
8 3/4	8429	9479	8887	7"	26.00	P-110	BT&C	1.42	2.27	69.70
6	8429	20266	8887	4-1/2"	11.60	HCP-110	BT&C	2.01	2.44	69.08
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

H2S Drilling Operations Plan

Training

All company and contract personnel admitted on location must be trained by a qualified H2S safety instructor to do the following:

1. Characteristics of H2S
2. Physical effects and hazards
3. Principle and operation of H2S detectors, warning system, and briefing areas
4. Evacuation procedure, routes and first aid
5. Proper use of safety equipment & life support systems
6. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H2S Detection and Alarm Systems

1. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
2. An audio alarm system will be installed on the derrick floor and in the top doghouse

Windsock and/or wind streamers

1. Windsock at mudpit area should be high enough to be visible
2. Windsock on the rig floor and / or top of doghouse should be high enough to be visible

Condition Flags & Signs

1. Warning signs on access road to location
2. Flags are to be displayed on sign at the entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates

danger (H2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

Well Control Equipment

1. See the pressure control section of this submission.

Communication

1. While working under masks, chalkboards will be used for communication
2. Hand signals will be used where chalk board is inappropriate.
3. Two way radio will be used to communicate off location in case emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

Drillstem Testing

1. No DSTs or cores are planned at this tmie
2. Drilling contractor supervisor will be required to be familiar with the effects that H2S has on tubular goods and other mechanical equipment.
3. If H2S is encountered, mud system will be altered if necessary to maintain control of the well. A mud gas separator will be brought into service along with H2S scavenger if necessary.

H2S Contingency Plan

Emergency Procedures

In the event of an H2S release, the first responder(s) must:

1. Isolate the area and prevent entry by other persons into the 100 PPM ROE.
2. Evacuate any public places encompassed by the 100 PPM ROE.
3. Be equipped with H2S monitors and air packs in order to control the release.
4. Use the buddy system
5. Take precautions to avoid personal injury during this operation
6. Contact operator and/or local officials to aid in operation. See list of emergency contacts attached.
7. Have received training the detection of H2S, measures for protection against the gas, and equipment used for protection and emergency response

Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

1. Coterra personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours.
2. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Coterra’s response must be in coordination with the State of New Mexico's" Hazardous Materials Emergency Response Plan" (HMER).

Coterra: H2S Plan

Emergency Contacts

Coterra Energy

Charlie Pritchard: Drilling Operations Manager: 432 – 238 – 7084

Darrell Kelly: Vice President EHS: 281 – 589 – 5795

Third Party

PERMIAN REGION CONTACT NUMBERS

CALL 911

Air Ambulance Services

Reeves County Medical - Pecos, TX	432-447-3551
Aero Care - Midland, TX	800-627-2376
Tri State Care Flight - Artesia, NM	800-800-0900
Air Methods - Hobbs, NM	800-242-6199

Fire / Police / Medical Care

Sheriff's Office		Fire Departments		Hospital / Medical Care Facilities	
Andrews County	432-523-5545	Andrews	432-523-3111	Permian Regional Med.	432-523-2200
Reagan County	325-884-2929	Big Lake	325-884-3650	Reagan Memorial Hosp.	325-884-2561
Howard County	432-264-2244	Big Springs	432-264-2303	Scenic Mountain Med Ctr	432-263-1211
Terry County	806-637-2212	Brownfield	806-637-6633		
Crane County	432-558-3571	Crane	432-558-2361	Crane Memorial Hosp.	432-558-3555
Val Verde County	830-774-7513	Del Rio	830-774-8648	Val Verde Regional Med.	830-775-8566
		Denver City	806-592-3516	Yoakum County Hospital	806-592-2121
Pecos County	432-336-3521	Ft. Stockton	432-336-8525		
Glasscock County	432-354-2361	Garden City			
Winkler County	432-586-3461	Kermit	432-586-2577	Winkler County Memorial	432-586-5864
		McCamey	432-652-8232	McCamey Hospital	432-652-8626
Loving County	432-377-2411	Mentone			
Irion County	325-835-2551	Mertzon			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				

Ground Ambulance Services

Reeves County Medical	Pecos, TX	432-447-3551

H2S Drilling Operations Plan

Training

All company and contract personnel admitted on location must be trained by a qualified H2S safety instructor to do the following:

1. Characteristics of H2S
2. Physical effects and hazards
3. Principle and operation of H2S detectors, warning system, and briefing areas
4. Evacuation procedure, routes and first aid
5. Proper use of safety equipment & life support systems
6. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H2S Detection and Alarm Systems

1. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
2. An audio alarm system will be installed on the derrick floor and in the top doghouse

Windsock and/or wind streamers

1. Windsock at mudpit area should be high enough to be visible
2. Windsock on the rig floor and / or top of doghouse should be high enough to be visible

Condition Flags & Signs

1. Warning signs on access road to location
2. Flags are to be displayed on sign at the entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates

danger (H2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

Well Control Equipment

1. See the pressure control section of this submission.

Communication

1. While working under masks, chalkboards will be used for communication
2. Hand signals will be used where chalk board is inappropriate.
3. Two way radio will be used to communicate off location in case emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

Drillstem Testing

1. No DSTs or cores are planned at this tmie
2. Drilling contractor supervisor will be required to be familiar with the effects that H2S has on tubular goods and other mechanical equipment.
3. If H2S is encountered, mud system will be altered if necessary to maintain control of the well. A mud gas separator will be brought into service along with H2S scavenger if necessary.

H2S Contingency Plan

Emergency Procedures

In the event of an H2S release, the first responder(s) must:

1. Isolate the area and prevent entry by other persons into the 100 PPM ROE.
2. Evacuate any public places encompassed by the 100 PPM ROE.
3. Be equipped with H2S monitors and air packs in order to control the release.
4. Use the buddy system
5. Take precautions to avoid personal injury during this operation
6. Contact operator and/or local officials to aid in operation. See list of emergency contacts attached.
7. Have received training the detection of H2S, measures for protection against the gas, and equipment used for protection and emergency response

Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

1. Coterra personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours.
2. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Coterra’s response must be in coordination with the State of New Mexico's" Hazardous Materials Emergency Response Plan" (HMER).

Coterra: H2S Plan

Emergency Contacts

Coterra Energy

Charlie Pritchard: Drilling Operations Manager: 432 – 238 – 7084

Darrell Kelly: Vice President EHS: 281 – 589 – 5795

Third Party

PERMIAN REGION CONTACT NUMBERS

CALL 911

Air Ambulance Services

Reeves County Medical - Pecos, TX	432-447-3551
Aero Care - Midland, TX	800-627-2376
Tri State Care Flight - Artesia, NM	800-800-0900
Air Methods - Hobbs, NM	800-242-6199

Fire / Police / Medical Care

Sheriff's Office		Fire Departments		Hospital / Medical Care Facilities	
Andrews County	432-523-5545	Andrews	432-523-3111	Permian Regional Med.	432-523-2200
Reagan County	325-884-2929	Big Lake	325-884-3650	Reagan Memorial Hosp.	325-884-2561
Howard County	432-264-2244	Big Springs	432-264-2303	Scenic Mountain Med Ctr	432-263-1211
Terry County	806-637-2212	Brownfield	806-637-6633		
Crane County	432-558-3571	Crane	432-558-2361	Crane Memorial Hosp.	432-558-3555
Val Verde County	830-774-7513	Del Rio	830-774-8648	Val Verde Regional Med.	830-775-8566
		Denver City	806-592-3516	Yoakum County Hospital	806-592-2121
Pecos County	432-336-3521	Ft. Stockton	432-336-8525		
Glasscock County	432-354-2361	Garden City			
Winkler County	432-586-3461	Kermit	432-586-2577	Winkler County Memorial	432-586-5864
		McCamey	432-652-8232	McCamey Hospital	432-652-8626
Loving County	432-377-2411	Mentone			
Irion County	325-835-2551	Mertzon			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				

Ground Ambulance Services

Reeves County Medical	Pecos, TX	432-447-3551

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 8H

OH

Plan: Plan 1

Total Directional
"Driven by TOTAL performance"
total

Standard Plan Report

24 June, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Project Eddy 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 Riverbend 12-13 Federal Com

Site Position:		**Northing:**	420,302.20 usft	**Latitude:**	32.1551540
From:	Map	**Easting:**	631,468.50 usft	**Longitude:**	-104.0420860
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Riverbend 12-13 Federal Com 8H

Well Position	**+N/-S**	0.00 usft	**Northing:**	420,300.68 usft	**Latitude:**	32.1551492
	+E/-W	0.00 usft	**Easting:**	631,548.47 usft	**Longitude:**	-104.0418276
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,934.00 usft
Grid Convergence:		0.16 °				

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM2025	8/19/2025	6.42	59.67	47,172.80000000

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	179.89

Survey Tool Program **Date** 6/24/2025

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	20,266.44	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Plan Summary

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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	12.00	120.00	1,795.62	-31.30	54.22	2.00	2.00	0.00	120.00	
1,810.29	12.20	120.14	1,805.68	-32.38	56.08	2.00	1.98	1.32	8.02	
7,323.61	12.20	120.14	7,194.42	-617.50	1,064.01	0.00	0.00	0.00	0.00	
7,933.80	0.00	0.00	7,800.00	-650.00	1,120.00	2.00	-2.00	0.00	180.00	
8,428.80	0.00	0.00	8,295.00	-650.00	1,120.00	0.00	0.00	0.00	0.00	
9,178.80	75.00	141.00	8,848.43	-980.03	1,387.25	10.00	10.00	0.00	141.00	
9,478.80	90.00	141.00	8,887.48	-1,210.52	1,573.90	5.00	5.00	0.00	0.00	
10,133.80	90.00	141.00	8,887.48	-1,719.55	1,986.10	0.00	0.00	0.00	0.00	
12,078.43	90.00	179.89	8,887.43	-3,517.05	2,624.53	2.00	0.00	2.00	90.00	
20,266.44	90.00	179.89	8,887.00	-11,705.04	2,639.88	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,300.00	2.00	120.00	1,299.98	-0.87	1.51	420,299.81	631,549.98	32.1551468	-104.0418227	0.88	2.00	2.00	0.00
1,400.00	4.00	120.00	1,399.84	-3.49	6.04	420,297.19	631,554.51	32.1551396	-104.0418081	3.50	2.00	2.00	0.00
1,500.00	6.00	120.00	1,499.45	-7.85	13.59	420,292.83	631,562.06	32.1551275	-104.0417837	7.87	2.00	2.00	0.00
1,600.00	8.00	120.00	1,598.70	-13.94	24.14	420,286.74	631,572.61	32.1551107	-104.0417497	13.99	2.00	2.00	0.00
1,700.00	10.00	120.00	1,697.47	-21.76	37.69	420,278.92	631,586.16	32.1550891	-104.0417060	21.83	2.00	2.00	0.00
1,800.00	12.00	120.00	1,795.62	-31.30	54.22	420,269.38	631,602.69	32.1550628	-104.0416527	31.41	2.00	2.00	0.00
1,810.29	12.20	120.14	1,805.68	-32.38	56.08	420,268.30	631,604.55	32.1550598	-104.0416467	32.49	2.00	1.98	1.32

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,900.00	12.20	120.14	1,893.37	-41.90	72.48	420,258.78	631,620.95	32.1550335	-104.0415937	42.04	0.00	0.00	0.00
1,959.99	12.20	120.14	1,952.00	-48.27	83.45	420,252.41	631,631.92	32.1550159	-104.0415584	48.43	0.00	0.00	0.00
Top Salt													
2,000.00	12.20	120.14	1,991.11	-52.52	90.76	420,248.16	631,639.23	32.1550042	-104.0415348	52.69	0.00	0.00	0.00
2,100.00	12.20	120.14	2,088.85	-63.13	109.05	420,237.55	631,657.52	32.1549749	-104.0414758	63.34	0.00	0.00	0.00
2,200.00	12.20	120.14	2,186.59	-73.74	127.33	420,226.94	631,675.80	32.1549456	-104.0414168	73.99	0.00	0.00	0.00
2,300.00	12.20	120.14	2,284.33	-84.35	145.61	420,216.33	631,694.08	32.1549162	-104.0413578	84.63	0.00	0.00	0.00
2,400.00	12.20	120.14	2,382.07	-94.97	163.89	420,205.71	631,712.36	32.1548869	-104.0412988	95.28	0.00	0.00	0.00
2,500.00	12.20	120.14	2,479.81	-105.58	182.17	420,195.10	631,730.64	32.1548576	-104.0412399	105.93	0.00	0.00	0.00
2,600.00	12.20	120.14	2,577.55	-116.19	200.45	420,184.49	631,748.92	32.1548283	-104.0411809	116.58	0.00	0.00	0.00
2,700.00	12.20	120.14	2,675.29	-126.81	218.74	420,173.87	631,767.21	32.1547990	-104.0411219	127.22	0.00	0.00	0.00
2,703.80	12.20	120.14	2,679.00	-127.21	219.43	420,173.47	631,767.90	32.1547979	-104.0411197	127.63	0.00	0.00	0.00
Base Salt/Lamar													
2,800.00	12.20	120.14	2,773.03	-137.42	237.02	420,163.26	631,785.49	32.1547697	-104.0410629	137.87	0.00	0.00	0.00
2,833.73	12.20	120.14	2,806.00	-141.00	243.19	420,159.68	631,791.66	32.1547598	-104.0410430	141.46	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
2,900.00	12.20	120.14	2,870.77	-148.03	255.30	420,152.65	631,803.77	32.1547404	-104.0410039	148.52	0.00	0.00	0.00
3,000.00	12.20	120.14	2,968.51	-158.64	273.58	420,142.04	631,822.05	32.1547111	-104.0409450	159.17	0.00	0.00	0.00
3,100.00	12.20	120.14	3,066.25	-169.26	291.86	420,131.42	631,840.33	32.1546818	-104.0408860	169.82	0.00	0.00	0.00
3,200.00	12.20	120.14	3,163.99	-179.87	310.15	420,120.81	631,858.62	32.1546525	-104.0408270	180.46	0.00	0.00	0.00
3,300.00	12.20	120.14	3,261.73	-190.48	328.43	420,110.20	631,876.90	32.1546232	-104.0407680	191.11	0.00	0.00	0.00
3,400.00	12.20	120.14	3,359.47	-201.09	346.71	420,099.59	631,895.18	32.1545938	-104.0407090	201.76	0.00	0.00	0.00
3,500.00	12.20	120.14	3,457.21	-211.71	364.99	420,088.97	631,913.46	32.1545645	-104.0406501	212.41	0.00	0.00	0.00
3,600.00	12.20	120.14	3,554.95	-222.32	383.27	420,078.36	631,931.74	32.1545352	-104.0405911	223.06	0.00	0.00	0.00
3,665.53	12.20	120.14	3,619.00	-229.27	395.25	420,071.41	631,943.72	32.1545160	-104.0405524	230.03	0.00	0.00	0.00
Cherry Canyon													
3,700.00	12.20	120.14	3,652.69	-232.93	401.55	420,067.75	631,950.02	32.1545059	-104.0405321	233.70	0.00	0.00	0.00
3,800.00	12.20	120.14	3,750.43	-243.55	419.84	420,057.13	631,968.31	32.1544766	-104.0404731	244.35	0.00	0.00	0.00
3,900.00	12.20	120.14	3,848.17	-254.16	438.12	420,046.52	631,986.59	32.1544473	-104.0404141	255.00	0.00	0.00	0.00
4,000.00	12.20	120.14	3,945.91	-264.77	456.40	420,035.91	632,004.87	32.1544180	-104.0403551	265.65	0.00	0.00	0.00
4,100.00	12.20	120.14	4,043.65	-275.38	474.68	420,025.30	632,023.15	32.1543887	-104.0402962	276.29	0.00	0.00	0.00
4,200.00	12.20	120.14	4,141.39	-286.00	492.96	420,014.68	632,041.43	32.1543594	-104.0402372	286.94	0.00	0.00	0.00
4,300.00	12.20	120.14	4,239.13	-296.61	511.24	420,004.07	632,059.71	32.1543300	-104.0401782	297.59	0.00	0.00	0.00
4,400.00	12.20	120.14	4,336.87	-307.22	529.53	419,993.46	632,078.00	32.1543007	-104.0401192	308.24	0.00	0.00	0.00
4,500.00	12.20	120.14	4,434.61	-317.83	547.81	419,982.85	632,096.28	32.1542714	-104.0400602	318.89	0.00	0.00	0.00
4,600.00	12.20	120.14	4,532.35	-328.45	566.09	419,972.23	632,114.56	32.1542421	-104.0400013	329.53	0.00	0.00	0.00
4,700.00	12.20	120.14	4,630.09	-339.06	584.37	419,961.62	632,132.84	32.1542128	-104.0399423	340.18	0.00	0.00	0.00
4,800.00	12.20	120.14	4,727.83	-349.67	602.65	419,951.01	632,151.12	32.1541835	-104.0398833	350.83	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,891.23	12.20	120.14	4,817.00	-359.36	619.33	419,941.33	632,167.80	32.1541568	-104.0398295	360.54	0.00	0.00	0.00
Brushy Canyon													
4,900.00	12.20	120.14	4,825.57	-360.29	620.93	419,940.39	632,169.40	32.1541542	-104.0398243	361.48	0.00	0.00	0.00
5,000.00	12.20	120.14	4,923.31	-370.90	639.22	419,929.78	632,187.69	32.1541249	-104.0397653	372.13	0.00	0.00	0.00
5,100.00	12.20	120.14	5,021.05	-381.51	657.50	419,919.17	632,205.97	32.1540956	-104.0397064	382.77	0.00	0.00	0.00
5,200.00	12.20	120.14	5,118.79	-392.12	675.78	419,908.56	632,224.25	32.1540663	-104.0396474	393.42	0.00	0.00	0.00
5,300.00	12.20	120.14	5,216.53	-402.74	694.06	419,897.94	632,242.53	32.1540369	-104.0395884	404.07	0.00	0.00	0.00
5,400.00	12.20	120.14	5,314.27	-413.35	712.34	419,887.33	632,260.81	32.1540076	-104.0395294	414.72	0.00	0.00	0.00
5,500.00	12.20	120.14	5,412.01	-423.96	730.62	419,876.72	632,279.09	32.1539783	-104.0394704	425.36	0.00	0.00	0.00
5,600.00	12.20	120.14	5,509.75	-434.58	748.91	419,866.10	632,297.38	32.1539490	-104.0394115	436.01	0.00	0.00	0.00
5,700.00	12.20	120.14	5,607.50	-445.19	767.19	419,855.49	632,315.66	32.1539197	-104.0393525	446.66	0.00	0.00	0.00
5,800.00	12.20	120.14	5,705.24	-455.80	785.47	419,844.88	632,333.94	32.1538904	-104.0392935	457.31	0.00	0.00	0.00
5,862.17	12.20	120.14	5,766.00	-462.40	796.84	419,838.28	632,345.31	32.1538722	-104.0392568	463.93	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	12.20	120.14	5,802.98	-466.41	803.75	419,834.27	632,352.22	32.1538611	-104.0392345	467.96	0.00	0.00	0.00
6,000.00	12.20	120.14	5,900.72	-477.03	822.03	419,823.65	632,370.50	32.1538318	-104.0391755	478.60	0.00	0.00	0.00
6,100.00	12.20	120.14	5,998.46	-487.64	840.31	419,813.04	632,388.78	32.1538025	-104.0391166	489.25	0.00	0.00	0.00
6,200.00	12.20	120.14	6,096.20	-498.25	858.60	419,802.43	632,407.07	32.1537731	-104.0390576	499.90	0.00	0.00	0.00
6,300.00	12.20	120.14	6,193.94	-508.86	876.88	419,791.82	632,425.35	32.1537438	-104.0389986	510.55	0.00	0.00	0.00
6,400.00	12.20	120.14	6,291.68	-519.48	895.16	419,781.20	632,443.63	32.1537145	-104.0389396	521.20	0.00	0.00	0.00
6,500.00	12.20	120.14	6,389.42	-530.09	913.44	419,770.59	632,461.91	32.1536852	-104.0388806	531.84	0.00	0.00	0.00
6,522.08	12.20	120.14	6,411.00	-532.43	917.48	419,768.25	632,465.95	32.1536787	-104.0388676	534.19	0.00	0.00	0.00
Bone Spring Lime													
6,600.00	12.20	120.14	6,487.16	-540.70	931.72	419,759.98	632,480.19	32.1536559	-104.0388217	542.49	0.00	0.00	0.00
6,700.00	12.20	120.14	6,584.90	-551.32	950.01	419,749.36	632,498.48	32.1536266	-104.0387627	553.14	0.00	0.00	0.00
6,800.00	12.20	120.14	6,682.64	-561.93	968.29	419,738.75	632,516.76	32.1535973	-104.0387037	563.79	0.00	0.00	0.00
6,900.00	12.20	120.14	6,780.38	-572.54	986.57	419,728.14	632,535.04	32.1535680	-104.0386447	574.43	0.00	0.00	0.00
7,000.00	12.20	120.14	6,878.12	-583.15	1,004.85	419,717.53	632,553.32	32.1535387	-104.0385857	585.08	0.00	0.00	0.00
7,100.00	12.20	120.14	6,975.86	-593.77	1,023.13	419,706.91	632,571.60	32.1535094	-104.0385268	595.73	0.00	0.00	0.00
7,200.00	12.20	120.14	7,073.60	-604.38	1,041.41	419,696.30	632,589.88	32.1534800	-104.0384678	606.38	0.00	0.00	0.00
7,300.00	12.20	120.14	7,171.34	-614.99	1,059.70	419,685.69	632,608.17	32.1534507	-104.0384088	617.03	0.00	0.00	0.00
7,323.61	12.20	120.14	7,194.42	-617.50	1,064.01	419,683.18	632,612.48	32.1534438	-104.0383949	619.54	0.00	0.00	0.00
7,400.00	10.68	120.14	7,269.29	-625.10	1,077.11	419,675.58	632,625.58	32.1534228	-104.0383526	627.17	2.00	-2.00	0.00
7,493.06	8.81	120.14	7,361.00	-633.01	1,090.74	419,667.67	632,639.21	32.1534010	-104.0383087	635.11	2.00	-2.00	0.00
1st Bone Spring Sand													
7,500.00	8.68	120.14	7,367.86	-633.54	1,091.65	419,667.14	632,640.12	32.1533995	-104.0383057	635.64	2.00	-2.00	0.00
7,600.00	6.68	120.14	7,466.96	-640.25	1,103.20	419,660.43	632,651.67	32.1533810	-104.0382685	642.36	2.00	-2.00	0.00
7,700.00	4.68	120.14	7,566.46	-645.21	1,111.75	419,655.47	632,660.22	32.1533673	-104.0382409	647.35	2.00	-2.00	0.00
7,800.00	2.68	120.14	7,666.25	-648.43	1,117.30	419,652.25	632,665.77	32.1533584	-104.0382230	650.58	2.00	-2.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.00	0.68	120.14	7,766.20	-649.90	1,119.83	419,650.78	632,668.30	32.1533543	-104.0382148	652.05	2.00	-2.00	0.00
7,933.80	0.00	0.00	7,800.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	2.00	-2.00	0.00
8,000.00	0.00	0.00	7,866.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,100.00	0.00	0.00	7,966.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,181.80	0.00	0.00	8,048.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
2nd Bone Spring Sand													
8,200.00	0.00	0.00	8,066.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,300.00	0.00	0.00	8,166.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,400.00	0.00	0.00	8,266.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,428.80	0.00	0.00	8,295.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,450.00	2.12	141.00	8,316.20	-650.30	1,120.25	419,650.38	632,668.72	32.1533532	-104.0382135	652.45	10.00	10.00	0.00
8,500.00	7.12	141.00	8,366.02	-653.43	1,122.78	419,647.25	632,671.25	32.1533446	-104.0382053	655.59	10.00	10.00	0.00
8,550.00	12.12	141.00	8,415.30	-659.93	1,128.04	419,640.75	632,676.51	32.1533267	-104.0381884	662.09	10.00	10.00	0.00
8,600.00	17.12	141.00	8,463.67	-669.73	1,135.98	419,630.95	632,684.45	32.1532997	-104.0381628	671.91	10.00	10.00	0.00
8,650.00	22.12	141.00	8,510.75	-682.77	1,146.54	419,617.91	632,695.01	32.1532637	-104.0381288	684.97	10.00	10.00	0.00
8,683.06	25.43	141.00	8,541.00	-693.13	1,154.93	419,607.55	632,703.40	32.1532352	-104.0381018	695.35	10.00	10.00	0.00
3rd Bone Spring Carb													
8,700.00	27.12	141.00	8,556.19	-698.96	1,159.64	419,601.72	632,708.11	32.1532192	-104.0380866	701.18	10.00	10.00	0.00
8,750.00	32.12	141.00	8,599.64	-718.16	1,175.19	419,582.52	632,723.66	32.1531663	-104.0380365	720.41	10.00	10.00	0.00
8,800.00	37.12	141.00	8,640.77	-740.22	1,193.06	419,560.46	632,741.53	32.1531055	-104.0379790	742.51	10.00	10.00	0.00
8,850.00	42.12	141.00	8,679.28	-765.00	1,213.12	419,535.68	632,761.59	32.1530372	-104.0379144	767.32	10.00	10.00	0.00
8,900.00	47.12	141.00	8,714.85	-792.28	1,235.22	419,508.40	632,783.69	32.1529621	-104.0378432	794.65	10.00	10.00	0.00
8,950.00	52.12	141.00	8,747.24	-821.87	1,259.18	419,478.81	632,807.65	32.1528805	-104.0377661	824.29	10.00	10.00	0.00
9,000.00	57.12	141.00	8,776.18	-853.54	1,284.83	419,447.14	632,833.30	32.1527933	-104.0376835	856.01	10.00	10.00	0.00
9,050.00	62.12	141.00	8,801.45	-887.05	1,311.96	419,413.63	632,860.43	32.1527010	-104.0375961	889.57	10.00	10.00	0.00
9,062.10	63.33	141.00	8,807.00	-895.41	1,318.73	419,405.27	632,867.20	32.1526779	-104.0375743	897.94	10.00	10.00	0.00
Harkey SS													
9,100.00	67.12	141.00	8,822.88	-922.15	1,340.38	419,378.53	632,888.85	32.1526043	-104.0375046	924.72	10.00	10.00	0.00
9,150.00	72.12	141.00	8,840.29	-958.56	1,369.87	419,342.12	632,918.34	32.1525039	-104.0374096	961.19	10.00	10.00	0.00
9,178.80	75.00	141.00	8,848.43	-980.03	1,387.25	419,320.65	632,935.72	32.1524448	-104.0373536	982.69	10.00	10.00	0.00
9,200.00	76.06	141.00	8,853.73	-995.98	1,400.17	419,304.70	632,948.64	32.1524009	-104.0373120	998.67	5.00	5.00	0.00
9,300.00	81.06	141.00	8,873.56	-1,072.13	1,461.83	419,228.55	633,010.30	32.1521911	-104.0371135	1,074.93	5.00	5.00	0.00
9,400.00	86.06	141.00	8,884.77	-1,149.33	1,524.35	419,151.35	633,072.82	32.1519784	-104.0369121	1,152.25	5.00	5.00	0.00
9,445.60	88.34	141.00	8,887.00	-1,184.72	1,553.01	419,115.96	633,101.48	32.1518809	-104.0368198	1,187.70	5.00	5.00	0.00
Harkey LZ													
9,478.80	90.00	141.00	8,887.48	-1,210.52	1,573.90	419,090.16	633,122.37	32.1518098	-104.0367526	1,213.54	5.00	5.00	0.00
9,500.00	90.00	141.00	8,887.48	-1,226.99	1,587.24	419,073.69	633,135.71	32.1517644	-104.0367096	1,230.04	0.00	0.00	0.00
9,600.00	90.00	141.00	8,887.48	-1,304.71	1,650.17	418,995.97	633,198.64	32.1515503	-104.0365070	1,307.87	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.00	90.00	141.00	8,887.48	-1,382.42	1,713.10	418,918.26	633,261.57	32.1513362	-104.0363043	1,385.71	0.00	0.00	0.00
9,800.00	90.00	141.00	8,887.48	-1,460.14	1,776.04	418,840.54	633,324.51	32.1511221	-104.0361016	1,463.54	0.00	0.00	0.00
9,900.00	90.00	141.00	8,887.48	-1,537.85	1,838.97	418,762.83	633,387.44	32.1509080	-104.0358990	1,541.38	0.00	0.00	0.00
10,000.00	90.00	141.00	8,887.48	-1,615.57	1,901.90	418,685.11	633,450.37	32.1506939	-104.0356963	1,619.21	0.00	0.00	0.00
10,100.00	90.00	141.00	8,887.48	-1,693.28	1,964.83	418,607.40	633,513.30	32.1504798	-104.0354937	1,697.05	0.00	0.00	0.00
10,133.80	90.00	141.00	8,887.48	-1,719.55	1,986.10	418,581.13	633,534.57	32.1504074	-104.0354252	1,723.36	0.00	0.00	0.00
10,200.00	90.00	142.32	8,887.48	-1,771.47	2,027.17	418,529.21	633,575.64	32.1502644	-104.0352930	1,775.36	2.00	0.00	2.00
10,300.00	90.00	144.32	8,887.48	-1,851.67	2,086.89	418,449.01	633,635.36	32.1500434	-104.0351007	1,855.67	2.00	0.00	2.00
10,400.00	90.00	146.32	8,887.48	-1,933.90	2,143.78	418,366.78	633,692.25	32.1498170	-104.0349176	1,938.02	2.00	0.00	2.00
10,500.00	90.00	148.32	8,887.48	-2,018.07	2,197.77	418,282.61	633,746.24	32.1495852	-104.0347439	2,022.29	2.00	0.00	2.00
10,600.00	90.00	150.32	8,887.48	-2,104.08	2,248.78	418,196.60	633,797.25	32.1493484	-104.0345799	2,108.39	2.00	0.00	2.00
10,700.00	90.00	152.32	8,887.48	-2,191.81	2,296.77	418,108.87	633,845.24	32.1491068	-104.0344256	2,196.21	2.00	0.00	2.00
10,800.00	90.00	154.32	8,887.47	-2,281.16	2,341.66	418,019.52	633,890.13	32.1488609	-104.0342814	2,285.65	2.00	0.00	2.00
10,900.00	90.00	156.32	8,887.47	-2,372.02	2,383.41	417,928.66	633,931.88	32.1486108	-104.0341473	2,376.59	2.00	0.00	2.00
11,000.00	90.00	158.32	8,887.47	-2,464.29	2,421.96	417,836.39	633,970.43	32.1483569	-104.0340236	2,468.93	2.00	0.00	2.00
11,100.00	90.00	160.32	8,887.47	-2,557.84	2,457.26	417,742.84	634,005.73	32.1480994	-104.0339103	2,562.55	2.00	0.00	2.00
11,200.00	90.00	162.32	8,887.46	-2,652.57	2,489.28	417,648.11	634,037.75	32.1478388	-104.0338077	2,657.35	2.00	0.00	2.00
11,300.00	90.00	164.32	8,887.46	-2,748.36	2,517.98	417,552.32	634,066.45	32.1475752	-104.0337159	2,753.19	2.00	0.00	2.00
11,400.00	90.00	166.32	8,887.46	-2,845.09	2,543.31	417,455.59	634,091.78	32.1473091	-104.0336349	2,849.97	2.00	0.00	2.00
11,500.00	90.00	168.32	8,887.45	-2,942.65	2,565.25	417,358.03	634,113.72	32.1470408	-104.0335649	2,947.57	2.00	0.00	2.00
11,600.00	90.00	170.32	8,887.45	-3,040.92	2,583.78	417,259.76	634,132.25	32.1467705	-104.0335059	3,045.87	2.00	0.00	2.00
11,700.00	90.00	172.32	8,887.45	-3,139.77	2,598.86	417,160.91	634,147.33	32.1464987	-104.0334581	3,144.75	2.00	0.00	2.00
11,800.00	90.00	174.32	8,887.44	-3,239.08	2,610.49	417,061.60	634,158.96	32.1462256	-104.0334214	3,244.09	2.00	0.00	2.00
11,900.00	90.00	176.32	8,887.44	-3,338.75	2,618.64	416,961.94	634,167.11	32.1459516	-104.0333959	3,343.77	2.00	0.00	2.00
12,000.00	90.00	178.32	8,887.43	-3,438.63	2,623.31	416,862.05	634,171.78	32.1456769	-104.0333818	3,443.66	2.00	0.00	2.00
12,078.43	90.00	179.89	8,887.43	-3,517.05	2,624.53	416,783.63	634,173.00	32.1454614	-104.0333785	3,522.08	2.00	0.00	2.00
12,100.00	90.00	179.89	8,887.43	-3,538.62	2,624.57	416,762.06	634,173.04	32.1454021	-104.0333786	3,543.65	0.00	0.00	0.00
12,200.00	90.00	179.89	8,887.42	-3,638.62	2,624.76	416,662.06	634,173.23	32.1451272	-104.0333789	3,643.65	0.00	0.00	0.00
12,300.00	90.00	179.89	8,887.42	-3,738.62	2,624.94	416,562.06	634,173.41	32.1448523	-104.0333792	3,743.65	0.00	0.00	0.00
12,400.00	90.00	179.89	8,887.41	-3,838.62	2,625.13	416,462.06	634,173.60	32.1445774	-104.0333795	3,843.65	0.00	0.00	0.00
12,500.00	90.00	179.89	8,887.41	-3,938.62	2,625.32	416,362.06	634,173.79	32.1443025	-104.0333798	3,943.65	0.00	0.00	0.00
12,600.00	90.00	179.89	8,887.40	-4,038.62	2,625.51	416,262.06	634,173.98	32.1440276	-104.0333801	4,043.65	0.00	0.00	0.00
12,700.00	90.00	179.89	8,887.40	-4,138.62	2,625.69	416,162.06	634,174.16	32.1437527	-104.0333803	4,143.65	0.00	0.00	0.00
12,800.00	90.00	179.89	8,887.39	-4,238.62	2,625.88	416,062.06	634,174.35	32.1434778	-104.0333806	4,243.65	0.00	0.00	0.00
12,900.00	90.00	179.89	8,887.39	-4,338.62	2,626.07	415,962.06	634,174.54	32.1432030	-104.0333809	4,343.65	0.00	0.00	0.00
13,000.00	90.00	179.89	8,887.38	-4,438.62	2,626.26	415,862.06	634,174.73	32.1429281	-104.0333812	4,443.65	0.00	0.00	0.00
13,100.00	90.00	179.89	8,887.37	-4,538.62	2,626.44	415,762.06	634,174.91	32.1426532	-104.0333815	4,543.65	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.00	90.00	179.89	8,887.37	-4,638.62	2,626.63	415,662.06	634,175.10	32.1423783	-104.0333818	4,643.65	0.00	0.00	0.00
13,300.00	90.00	179.89	8,887.36	-4,738.62	2,626.82	415,562.06	634,175.29	32.1421034	-104.0333821	4,743.65	0.00	0.00	0.00
13,400.00	90.00	179.89	8,887.36	-4,838.62	2,627.01	415,462.06	634,175.48	32.1418285	-104.0333824	4,843.65	0.00	0.00	0.00
13,500.00	90.00	179.89	8,887.35	-4,938.62	2,627.19	415,362.06	634,175.66	32.1415536	-104.0333827	4,943.65	0.00	0.00	0.00
13,600.00	90.00	179.89	8,887.35	-5,038.62	2,627.38	415,262.06	634,175.85	32.1412787	-104.0333830	5,043.65	0.00	0.00	0.00
13,700.00	90.00	179.89	8,887.34	-5,138.62	2,627.57	415,162.06	634,176.04	32.1410038	-104.0333833	5,143.65	0.00	0.00	0.00
13,800.00	90.00	179.89	8,887.34	-5,238.62	2,627.76	415,062.06	634,176.23	32.1407289	-104.0333836	5,243.65	0.00	0.00	0.00
13,900.00	90.00	179.89	8,887.33	-5,338.62	2,627.94	414,962.06	634,176.41	32.1404540	-104.0333839	5,343.65	0.00	0.00	0.00
14,000.00	90.00	179.89	8,887.33	-5,438.62	2,628.13	414,862.06	634,176.60	32.1401791	-104.0333842	5,443.65	0.00	0.00	0.00
14,100.00	90.00	179.89	8,887.32	-5,538.62	2,628.32	414,762.06	634,176.79	32.1399043	-104.0333845	5,543.65	0.00	0.00	0.00
14,200.00	90.00	179.89	8,887.32	-5,638.62	2,628.51	414,662.06	634,176.98	32.1396294	-104.0333848	5,643.65	0.00	0.00	0.00
14,300.00	90.00	179.89	8,887.31	-5,738.62	2,628.69	414,562.07	634,177.16	32.1393545	-104.0333851	5,743.65	0.00	0.00	0.00
14,400.00	90.00	179.89	8,887.31	-5,838.61	2,628.88	414,462.07	634,177.35	32.1390796	-104.0333853	5,843.65	0.00	0.00	0.00
14,500.00	90.00	179.89	8,887.30	-5,938.61	2,629.07	414,362.07	634,177.54	32.1388047	-104.0333856	5,943.65	0.00	0.00	0.00
14,600.00	90.00	179.89	8,887.30	-6,038.61	2,629.26	414,262.07	634,177.73	32.1385298	-104.0333859	6,043.65	0.00	0.00	0.00
14,700.00	90.00	179.89	8,887.29	-6,138.61	2,629.44	414,162.07	634,177.91	32.1382549	-104.0333862	6,143.65	0.00	0.00	0.00
14,800.00	90.00	179.89	8,887.29	-6,238.61	2,629.63	414,062.07	634,178.10	32.1379800	-104.0333865	6,243.65	0.00	0.00	0.00
14,900.00	90.00	179.89	8,887.28	-6,338.61	2,629.82	413,962.07	634,178.29	32.1377051	-104.0333868	6,343.65	0.00	0.00	0.00
15,000.00	90.00	179.89	8,887.28	-6,438.61	2,630.01	413,862.07	634,178.48	32.1374302	-104.0333871	6,443.65	0.00	0.00	0.00
15,100.00	90.00	179.89	8,887.27	-6,538.61	2,630.19	413,762.07	634,178.66	32.1371553	-104.0333874	6,543.65	0.00	0.00	0.00
15,200.00	90.00	179.89	8,887.27	-6,638.61	2,630.38	413,662.07	634,178.85	32.1368804	-104.0333877	6,643.65	0.00	0.00	0.00
15,300.00	90.00	179.89	8,887.26	-6,738.61	2,630.57	413,562.07	634,179.04	32.1366056	-104.0333880	6,743.65	0.00	0.00	0.00
15,400.00	90.00	179.89	8,887.25	-6,838.61	2,630.76	413,462.07	634,179.23	32.1363307	-104.0333883	6,843.65	0.00	0.00	0.00
15,500.00	90.00	179.89	8,887.25	-6,938.61	2,630.94	413,362.07	634,179.41	32.1360558	-104.0333886	6,943.65	0.00	0.00	0.00
15,600.00	90.00	179.89	8,887.24	-7,038.61	2,631.13	413,262.07	634,179.60	32.1357809	-104.0333889	7,043.65	0.00	0.00	0.00
15,700.00	90.00	179.89	8,887.24	-7,138.61	2,631.32	413,162.07	634,179.79	32.1355060	-104.0333892	7,143.65	0.00	0.00	0.00
15,800.00	90.00	179.89	8,887.23	-7,238.61	2,631.51	413,062.07	634,179.98	32.1352311	-104.0333895	7,243.65	0.00	0.00	0.00
15,900.00	90.00	179.89	8,887.23	-7,338.61	2,631.69	412,962.07	634,180.16	32.1349562	-104.0333898	7,343.65	0.00	0.00	0.00
16,000.00	90.00	179.89	8,887.22	-7,438.61	2,631.88	412,862.07	634,180.35	32.1346813	-104.0333900	7,443.65	0.00	0.00	0.00
16,100.00	90.00	179.89	8,887.22	-7,538.61	2,632.07	412,762.07	634,180.54	32.1344064	-104.0333903	7,543.65	0.00	0.00	0.00
16,200.00	90.00	179.89	8,887.21	-7,638.61	2,632.26	412,662.07	634,180.73	32.1341315	-104.0333906	7,643.65	0.00	0.00	0.00
16,300.00	90.00	179.89	8,887.21	-7,738.61	2,632.44	412,562.07	634,180.91	32.1338566	-104.0333909	7,743.65	0.00	0.00	0.00
16,400.00	90.00	179.89	8,887.20	-7,838.61	2,632.63	412,462.07	634,181.10	32.1335817	-104.0333912	7,843.65	0.00	0.00	0.00
16,500.00	90.00	179.89	8,887.20	-7,938.61	2,632.82	412,362.07	634,181.29	32.1333069	-104.0333915	7,943.65	0.00	0.00	0.00
16,600.00	90.00	179.89	8,887.19	-8,038.61	2,633.01	412,262.07	634,181.48	32.1330320	-104.0333918	8,043.65	0.00	0.00	0.00
16,700.00	90.00	179.89	8,887.19	-8,138.61	2,633.19	412,162.07	634,181.66	32.1327571	-104.0333921	8,143.65	0.00	0.00	0.00
16,800.00	90.00	179.89	8,887.18	-8,238.61	2,633.38	412,062.07	634,181.85	32.1324822	-104.0333924	8,243.65	0.00	0.00	0.00
16,900.00	90.00	179.89	8,887.18	-8,338.61	2,633.57	411,962.07	634,182.04	32.1322073	-104.0333927	8,343.65	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,000.00	90.00	179.89	8,887.17	-8,438.61	2,633.76	411,862.07	634,182.23	32.1319324	-104.0333930	8,443.65	0.00	0.00	0.00
17,100.00	90.00	179.89	8,887.17	-8,538.61	2,633.94	411,762.07	634,182.41	32.1316575	-104.0333933	8,543.65	0.00	0.00	0.00
17,200.00	90.00	179.89	8,887.16	-8,638.61	2,634.13	411,662.07	634,182.60	32.1313826	-104.0333936	8,643.65	0.00	0.00	0.00
17,300.00	90.00	179.89	8,887.16	-8,738.61	2,634.32	411,562.07	634,182.79	32.1311077	-104.0333939	8,743.65	0.00	0.00	0.00
17,400.00	90.00	179.89	8,887.15	-8,838.61	2,634.51	411,462.07	634,182.98	32.1308328	-104.0333942	8,843.65	0.00	0.00	0.00
17,500.00	90.00	179.89	8,887.14	-8,938.61	2,634.69	411,362.07	634,183.16	32.1305579	-104.0333945	8,943.65	0.00	0.00	0.00
17,600.00	90.00	179.89	8,887.14	-9,038.61	2,634.88	411,262.07	634,183.35	32.1302830	-104.0333947	9,043.65	0.00	0.00	0.00
17,700.00	90.00	179.89	8,887.13	-9,138.61	2,635.07	411,162.07	634,183.54	32.1300082	-104.0333950	9,143.65	0.00	0.00	0.00
17,800.00	90.00	179.89	8,887.13	-9,238.61	2,635.26	411,062.07	634,183.73	32.1297333	-104.0333953	9,243.65	0.00	0.00	0.00
17,900.00	90.00	179.89	8,887.12	-9,338.61	2,635.44	410,962.07	634,183.91	32.1294584	-104.0333956	9,343.65	0.00	0.00	0.00
18,000.00	90.00	179.89	8,887.12	-9,438.61	2,635.63	410,862.07	634,184.10	32.1291835	-104.0333959	9,443.65	0.00	0.00	0.00
18,100.00	90.00	179.89	8,887.11	-9,538.61	2,635.82	410,762.07	634,184.29	32.1289086	-104.0333962	9,543.65	0.00	0.00	0.00
18,200.00	90.00	179.89	8,887.11	-9,638.61	2,636.01	410,662.07	634,184.48	32.1286337	-104.0333965	9,643.65	0.00	0.00	0.00
18,300.00	90.00	179.89	8,887.10	-9,738.61	2,636.19	410,562.07	634,184.66	32.1283588	-104.0333968	9,743.65	0.00	0.00	0.00
18,400.00	90.00	179.89	8,887.10	-9,838.61	2,636.38	410,462.07	634,184.85	32.1280839	-104.0333971	9,843.65	0.00	0.00	0.00
18,500.00	90.00	179.89	8,887.09	-9,938.61	2,636.57	410,362.07	634,185.04	32.1278090	-104.0333974	9,943.65	0.00	0.00	0.00
18,600.00	90.00	179.89	8,887.09	-10,038.61	2,636.76	410,262.07	634,185.23	32.1275341	-104.0333977	10,043.65	0.00	0.00	0.00
18,700.00	90.00	179.89	8,887.08	-10,138.61	2,636.94	410,162.07	634,185.41	32.1272592	-104.0333980	10,143.65	0.00	0.00	0.00
18,800.00	90.00	179.89	8,887.08	-10,238.61	2,637.13	410,062.07	634,185.60	32.1269843	-104.0333983	10,243.65	0.00	0.00	0.00
18,900.00	90.00	179.89	8,887.07	-10,338.61	2,637.32	409,962.07	634,185.79	32.1267094	-104.0333986	10,343.65	0.00	0.00	0.00
19,000.00	90.00	179.89	8,887.07	-10,438.61	2,637.51	409,862.07	634,185.98	32.1264346	-104.0333989	10,443.65	0.00	0.00	0.00
19,100.00	90.00	179.89	8,887.06	-10,538.61	2,637.69	409,762.07	634,186.16	32.1261597	-104.0333992	10,543.65	0.00	0.00	0.00
19,200.00	90.00	179.89	8,887.06	-10,638.61	2,637.88	409,662.07	634,186.35	32.1258848	-104.0333994	10,643.65	0.00	0.00	0.00
19,300.00	90.00	179.89	8,887.05	-10,738.61	2,638.07	409,562.07	634,186.54	32.1256099	-104.0333997	10,743.65	0.00	0.00	0.00
19,400.00	90.00	179.89	8,887.05	-10,838.61	2,638.26	409,462.07	634,186.73	32.1253350	-104.0334000	10,843.65	0.00	0.00	0.00
19,500.00	90.00	179.89	8,887.04	-10,938.61	2,638.44	409,362.07	634,186.91	32.1250601	-104.0334003	10,943.65	0.00	0.00	0.00
19,600.00	90.00	179.89	8,887.04	-11,038.61	2,638.63	409,262.07	634,187.10	32.1247852	-104.0334006	11,043.65	0.00	0.00	0.00
19,700.00	90.00	179.89	8,887.03	-11,138.61	2,638.82	409,162.07	634,187.29	32.1245103	-104.0334009	11,143.65	0.00	0.00	0.00
19,800.00	90.00	179.89	8,887.02	-11,238.61	2,639.01	409,062.07	634,187.48	32.1242354	-104.0334012	11,243.65	0.00	0.00	0.00
19,900.00	90.00	179.89	8,887.02	-11,338.61	2,639.19	408,962.07	634,187.66	32.1239605	-104.0334015	11,343.65	0.00	0.00	0.00
20,000.00	90.00	179.89	8,887.01	-11,438.61	2,639.38	408,862.08	634,187.85	32.1236856	-104.0334018	11,443.65	0.00	0.00	0.00
20,100.00	90.00	179.89	8,887.01	-11,538.61	2,639.57	408,762.08	634,188.04	32.1234107	-104.0334021	11,543.65	0.00	0.00	0.00
20,200.00	90.00	179.89	8,887.00	-11,638.60	2,639.76	408,662.08	634,188.23	32.1231358	-104.0334024	11,643.65	0.00	0.00	0.00
20,266.44	90.00	179.89	8,887.00	-11,705.04	2,639.88	408,595.64	634,188.35	32.1229532	-104.0334026	11,710.09	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (Riverbend 12-13 F	0.00	0.00	0.00	-11,705.04	2,639.88	408,595.64	634,188.35	32.1229532	-104.0334026
- plan misses target center by 8887.00usft at 20266.44usft MD (8887.00 TVD, -11705.04 N, 2639.88 E)									
- Point									
FTP (Riverbend 12-13 F	0.00	0.00	0.00	-1,289.34	2,620.46	419,011.34	634,168.93	32.1515852	-104.0333716
- plan misses target center by 2920.48usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
407.00	407.00	Rustler			
1,959.99	1,952.00	Top Salt			
2,703.80	2,679.00	Base Salt/Lamar			
2,833.73	2,806.00	Top Delaware Sands/Bell Canyon			
3,665.53	3,619.00	Cherry Canyon			
4,891.23	4,817.00	Brushy Canyon			
5,862.17	5,766.00	Lower Brushy Canyon			
6,522.08	6,411.00	Bone Spring Lime			
7,493.06	7,361.00	1st Bone Spring Sand			
8,181.80	8,048.00	2nd Bone Spring Sand			
8,683.06	8,541.00	3rd Bone Spring Carb			
9,062.10	8,807.00	Harkey SS			
9,445.60	8,887.00	Harkey LZ			

Checked By: _____ Approved By: _____ Date: _____

COMPANY	Coterra Energy
FIELD	Eddy County, NM (NAD 83)
SITE	Riverbend 12-13 Federal Com
WELL	Riverbend 12-13 Federal Com 8H
WELLPATH	OH
DESIGN	Plan 1
DEPTHUNT	(usft)

WELL INFO	
MAP DATUM	North American Datum 1983
MAP SYSTEM	US State Plane 1983
MAP ZONE	New Mexico Eastern Zone
WELL LAT	32.155149
WELL LON	-104.041828
WELL EW MAI	631548.47
WELL NS MAP	420300.68
CONVERGENC	0.16
MAGMODEL	HDGM2025
DECLINATION	6.42
NORTH REF	Grid
GROUND ELE\	2934
KB ELEVN	2957
VS AZI	179.89

SURVEY PROGRAM

1 0.00 - 20266.44 PLAN 1 : MWD+IFR1+MS

SURVEY LIST

Measured De	Inclination	Azimuth	Course Length	True Vertical I	SubSea TVD	Local N/-S
MD	INC	AZI	CL	TVD	SSTVD	NS
0.00	0.00	0.00	0.00	0.00	2957.00	0.00
100.00	0.00	0.00	100.00	100.00	2857.00	0.00
200.00	0.00	0.00	100.00	200.00	2757.00	0.00
300.00	0.00	0.00	100.00	300.00	2657.00	0.00
400.00	0.00	0.00	100.00	400.00	2557.00	0.00
500.00	0.00	0.00	100.00	500.00	2457.00	0.00
600.00	0.00	0.00	100.00	600.00	2357.00	0.00
700.00	0.00	0.00	100.00	700.00	2257.00	0.00
800.00	0.00	0.00	100.00	800.00	2157.00	0.00
900.00	0.00	0.00	100.00	900.00	2057.00	0.00
1000.00	0.00	0.00	100.00	1000.00	1957.00	0.00
1100.00	0.00	0.00	100.00	1100.00	1857.00	0.00
1200.00	0.00	0.00	100.00	1200.00	1757.00	0.00
1300.00	2.00	120.00	100.00	1299.98	1657.02	-0.87

1400.00	4.00	120.00	100.00	1399.84	1557.16	-3.49
1500.00	6.00	120.00	100.00	1499.45	1457.55	-7.85
1600.00	8.00	120.00	100.00	1598.70	1358.30	-13.94
1700.00	10.00	120.00	100.00	1697.47	1259.54	-21.76
1800.00	12.00	120.00	100.00	1795.62	1161.38	-31.30
1810.29	12.20	120.14	10.29	1805.68	1151.32	-32.38
1900.00	12.20	120.14	89.71	1893.37	1063.63	-41.90
2000.00	12.20	120.14	100.00	1991.11	965.89	-52.52
2100.00	12.20	120.14	100.00	2088.85	868.15	-63.13
2200.00	12.20	120.14	100.00	2186.59	770.41	-73.74
2300.00	12.20	120.14	100.00	2284.33	672.67	-84.35
2400.00	12.20	120.14	100.00	2382.07	574.93	-94.97
2500.00	12.20	120.14	100.00	2479.81	477.19	-105.58
2600.00	12.20	120.14	100.00	2577.55	379.45	-116.19
2700.00	12.20	120.14	100.00	2675.29	281.71	-126.81
2800.00	12.20	120.14	100.00	2773.03	183.97	-137.42
2900.00	12.20	120.14	100.00	2870.77	86.23	-148.03
3000.00	12.20	120.14	100.00	2968.51	-11.51	-158.64
3100.00	12.20	120.14	100.00	3066.25	-109.25	-169.26
3200.00	12.20	120.14	100.00	3163.99	-206.99	-179.87
3300.00	12.20	120.14	100.00	3261.73	-304.73	-190.48
3400.00	12.20	120.14	100.00	3359.47	-402.47	-201.09
3500.00	12.20	120.14	100.00	3457.21	-500.21	-211.71
3600.00	12.20	120.14	100.00	3554.95	-597.95	-222.32
3700.00	12.20	120.14	100.00	3652.69	-695.69	-232.93
3800.00	12.20	120.14	100.00	3750.43	-793.43	-243.55
3900.00	12.20	120.14	100.00	3848.17	-891.17	-254.16
4000.00	12.20	120.14	100.00	3945.91	-988.91	-264.77
4100.00	12.20	120.14	100.00	4043.65	-1086.65	-275.38
4200.00	12.20	120.14	100.00	4141.39	-1184.39	-286.00
4300.00	12.20	120.14	100.00	4239.13	-1282.13	-296.61
4400.00	12.20	120.14	100.00	4336.87	-1379.87	-307.22
4500.00	12.20	120.14	100.00	4434.61	-1477.61	-317.84
4600.00	12.20	120.14	100.00	4532.35	-1575.35	-328.45
4700.00	12.20	120.14	100.00	4630.09	-1673.09	-339.06
4800.00	12.20	120.14	100.00	4727.83	-1770.83	-349.67
4900.00	12.20	120.14	100.00	4825.57	-1868.57	-360.29
5000.00	12.20	120.14	100.00	4923.31	-1966.31	-370.90
5100.00	12.20	120.14	100.00	5021.05	-2064.05	-381.51
5200.00	12.20	120.14	100.00	5118.79	-2161.79	-392.12
5300.00	12.20	120.14	100.00	5216.53	-2259.53	-402.74
5400.00	12.20	120.14	100.00	5314.27	-2357.27	-413.35
5500.00	12.20	120.14	100.00	5412.02	-2455.02	-423.96
5600.00	12.20	120.14	100.00	5509.76	-2552.76	-434.58

5700.00	12.20	120.14	100.00	5607.50	-2650.50	-445.19
5800.00	12.20	120.14	100.00	5705.24	-2748.24	-455.80
5900.00	12.20	120.14	100.00	5802.98	-2845.98	-466.41
6000.00	12.20	120.14	100.00	5900.72	-2943.72	-477.03
6100.00	12.20	120.14	100.00	5998.46	-3041.46	-487.64
6200.00	12.20	120.14	100.00	6096.20	-3139.20	-498.25
6300.00	12.20	120.14	100.00	6193.94	-3236.94	-508.87
6400.00	12.20	120.14	100.00	6291.68	-3334.68	-519.48
6500.00	12.20	120.14	100.00	6389.42	-3432.42	-530.09
6600.00	12.20	120.14	100.00	6487.16	-3530.16	-540.70
6700.00	12.20	120.14	100.00	6584.90	-3627.90	-551.32
6800.00	12.20	120.14	100.00	6682.64	-3725.64	-561.93
6900.00	12.20	120.14	100.00	6780.38	-3823.38	-572.54
7000.00	12.20	120.14	100.00	6878.12	-3921.12	-583.15
7100.00	12.20	120.14	100.00	6975.86	-4018.86	-593.77
7200.00	12.20	120.14	100.00	7073.60	-4116.60	-604.38
7300.00	12.20	120.14	100.00	7171.34	-4214.34	-614.99
7323.61	12.20	120.14	23.61	7194.42	-4237.42	-617.50
7400.00	10.68	120.14	76.39	7269.29	-4312.29	-625.10
7500.00	8.68	120.14	100.00	7367.86	-4410.86	-633.54
7600.00	6.68	120.14	100.00	7466.96	-4509.96	-640.25
7700.00	4.68	120.14	100.00	7566.46	-4609.46	-645.21
7800.00	2.68	120.14	100.00	7666.25	-4709.25	-648.43
7900.00	0.68	120.14	100.00	7766.20	-4809.20	-649.90
7933.80	0.00	0.00	33.80	7800.00	-4843.00	-650.00
8000.00	0.00	0.00	66.20	7866.20	-4909.20	-650.00
8100.00	0.00	0.00	100.00	7966.20	-5009.20	-650.00
8200.00	0.00	0.00	100.00	8066.20	-5109.20	-650.00
8300.00	0.00	0.00	100.00	8166.20	-5209.20	-650.00
8400.00	0.00	0.00	100.00	8266.20	-5309.20	-650.00
8428.80	0.00	0.00	28.80	8295.00	-5338.00	-650.00
8450.00	2.12	141.00	21.20	8316.20	-5359.20	-650.31
8500.00	7.12	141.00	50.00	8366.02	-5409.02	-653.43
8550.00	12.12	141.00	50.00	8415.30	-5458.30	-659.93
8600.00	17.12	141.00	50.00	8463.67	-5506.67	-669.73
8650.00	22.12	141.00	50.00	8510.75	-5553.75	-682.77
8700.00	27.12	141.00	50.00	8556.19	-5599.19	-698.96
8750.00	32.12	141.00	50.00	8599.64	-5642.64	-718.16
8800.00	37.12	141.00	50.00	8640.77	-5683.77	-740.23
8850.00	42.12	141.00	50.00	8679.28	-5722.28	-765.00
8900.00	47.12	141.00	50.00	8714.85	-5757.85	-792.28
8950.00	52.12	141.00	50.00	8747.24	-5790.24	-821.87
9000.00	57.12	141.00	50.00	8776.18	-5819.18	-853.54
9050.00	62.12	141.00	50.00	8801.46	-5844.46	-887.05

9100.00	67.12	141.00	50.00	8822.88	-5865.88	-922.15
9150.00	72.12	141.00	50.00	8840.29	-5883.29	-958.56
9178.80	75.00	141.00	28.80	8848.44	-5891.44	-980.03
9200.00	76.06	141.00	21.20	8853.73	-5896.73	-995.98
9300.00	81.06	141.00	100.00	8873.56	-5916.56	-1072.13
9400.00	86.06	141.00	100.00	8884.77	-5927.77	-1149.33
9478.80	90.00	141.00	78.80	8887.48	-5930.48	-1210.52
9500.00	90.00	141.00	21.20	8887.48	-5930.48	-1226.99
9600.00	90.00	141.00	100.00	8887.48	-5930.48	-1304.71
9700.00	90.00	141.00	100.00	8887.48	-5930.48	-1382.42
9800.00	90.00	141.00	100.00	8887.48	-5930.48	-1460.14
9900.00	90.00	141.00	100.00	8887.48	-5930.48	-1537.85
10000.00	90.00	141.00	100.00	8887.48	-5930.48	-1615.57
10100.00	90.00	141.00	100.00	8887.48	-5930.48	-1693.28
10133.80	90.00	141.00	33.80	8887.48	-5930.48	-1719.55
10200.00	90.00	142.32	66.20	8887.48	-5930.48	-1771.47
10300.00	90.00	144.32	100.00	8887.48	-5930.48	-1851.67
10400.00	90.00	146.32	100.00	8887.48	-5930.48	-1933.91
10500.00	90.00	148.32	100.00	8887.48	-5930.48	-2018.07
10600.00	90.00	150.32	100.00	8887.48	-5930.48	-2104.08
10700.00	90.00	152.32	100.00	8887.48	-5930.48	-2191.81
10800.00	90.00	154.32	100.00	8887.47	-5930.47	-2281.16
10900.00	90.00	156.32	100.00	8887.47	-5930.47	-2372.02
11000.00	90.00	158.32	100.00	8887.47	-5930.47	-2464.29
11100.00	90.00	160.32	100.00	8887.47	-5930.47	-2557.84
11200.00	90.00	162.32	100.00	8887.47	-5930.47	-2652.57
11300.00	90.00	164.32	100.00	8887.46	-5930.46	-2748.36
11400.00	90.00	166.32	100.00	8887.46	-5930.46	-2845.09
11500.00	90.00	168.32	100.00	8887.45	-5930.45	-2942.65
11600.00	90.00	170.32	100.00	8887.45	-5930.45	-3040.92
11700.00	90.00	172.32	100.00	8887.45	-5930.45	-3139.77
11800.00	90.00	174.32	100.00	8887.44	-5930.44	-3239.08
11900.00	90.00	176.32	100.00	8887.44	-5930.44	-3338.75
12000.00	90.00	178.32	100.00	8887.43	-5930.43	-3438.63
12078.43	90.00	179.89	78.43	8887.43	-5930.43	-3517.05
12100.00	90.00	179.89	21.57	8887.43	-5930.43	-3538.62
12200.00	90.00	179.89	100.00	8887.42	-5930.42	-3638.62
12300.00	90.00	179.89	100.00	8887.42	-5930.42	-3738.62
12400.00	90.00	179.89	100.00	8887.41	-5930.41	-3838.62
12500.00	90.00	179.89	100.00	8887.41	-5930.41	-3938.62
12600.00	90.00	179.89	100.00	8887.40	-5930.40	-4038.62
12700.00	90.00	179.89	100.00	8887.40	-5930.40	-4138.62
12800.00	90.00	179.89	100.00	8887.39	-5930.39	-4238.62
12900.00	90.00	179.89	100.00	8887.39	-5930.39	-4338.62

13000.00	90.00	179.89	100.00	8887.38	-5930.38	-4438.62
13100.00	90.00	179.89	100.00	8887.38	-5930.38	-4538.62
13200.00	90.00	179.89	100.00	8887.37	-5930.37	-4638.62
13300.00	90.00	179.89	100.00	8887.36	-5930.36	-4738.62
13400.00	90.00	179.89	100.00	8887.36	-5930.36	-4838.62
13500.00	90.00	179.89	100.00	8887.35	-5930.35	-4938.62
13600.00	90.00	179.89	100.00	8887.35	-5930.35	-5038.62
13700.00	90.00	179.89	100.00	8887.34	-5930.34	-5138.62
13800.00	90.00	179.89	100.00	8887.34	-5930.34	-5238.62
13900.00	90.00	179.89	100.00	8887.33	-5930.33	-5338.62
14000.00	90.00	179.89	100.00	8887.33	-5930.33	-5438.62
14100.00	90.00	179.89	100.00	8887.32	-5930.32	-5538.62
14200.00	90.00	179.89	100.00	8887.32	-5930.32	-5638.62
14300.00	90.00	179.89	100.00	8887.31	-5930.31	-5738.62
14400.00	90.00	179.89	100.00	8887.31	-5930.31	-5838.62
14500.00	90.00	179.89	100.00	8887.30	-5930.30	-5938.62
14600.00	90.00	179.89	100.00	8887.30	-5930.30	-6038.61
14700.00	90.00	179.89	100.00	8887.29	-5930.29	-6138.61
14800.00	90.00	179.89	100.00	8887.29	-5930.29	-6238.61
14900.00	90.00	179.89	100.00	8887.28	-5930.28	-6338.61
15000.00	90.00	179.89	100.00	8887.28	-5930.28	-6438.61
15100.00	90.00	179.89	100.00	8887.27	-5930.27	-6538.61
15200.00	90.00	179.89	100.00	8887.27	-5930.27	-6638.61
15300.00	90.00	179.89	100.00	8887.26	-5930.26	-6738.61
15400.00	90.00	179.89	100.00	8887.25	-5930.25	-6838.61
15500.00	90.00	179.89	100.00	8887.25	-5930.25	-6938.61
15600.00	90.00	179.89	100.00	8887.24	-5930.24	-7038.61
15700.00	90.00	179.89	100.00	8887.24	-5930.24	-7138.61
15800.00	90.00	179.89	100.00	8887.23	-5930.23	-7238.61
15900.00	90.00	179.89	100.00	8887.23	-5930.23	-7338.61
16000.00	90.00	179.89	100.00	8887.22	-5930.22	-7438.61
16100.00	90.00	179.89	100.00	8887.22	-5930.22	-7538.61
16200.00	90.00	179.89	100.00	8887.21	-5930.21	-7638.61
16300.00	90.00	179.89	100.00	8887.21	-5930.21	-7738.61
16400.00	90.00	179.89	100.00	8887.20	-5930.20	-7838.61
16500.00	90.00	179.89	100.00	8887.20	-5930.20	-7938.61
16600.00	90.00	179.89	100.00	8887.19	-5930.19	-8038.61
16700.00	90.00	179.89	100.00	8887.19	-5930.19	-8138.61
16800.00	90.00	179.89	100.00	8887.18	-5930.18	-8238.61
16900.00	90.00	179.89	100.00	8887.18	-5930.18	-8338.61
17000.00	90.00	179.89	100.00	8887.17	-5930.17	-8438.61
17100.00	90.00	179.89	100.00	8887.17	-5930.17	-8538.61
17200.00	90.00	179.89	100.00	8887.16	-5930.16	-8638.61
17300.00	90.00	179.89	100.00	8887.16	-5930.16	-8738.61

17400.00	90.00	179.89	100.00	8887.15	-5930.15	-8838.61
17500.00	90.00	179.89	100.00	8887.15	-5930.15	-8938.61
17600.00	90.00	179.89	100.00	8887.14	-5930.14	-9038.61
17700.00	90.00	179.89	100.00	8887.13	-5930.13	-9138.61
17800.00	90.00	179.89	100.00	8887.13	-5930.13	-9238.61
17900.00	90.00	179.89	100.00	8887.12	-5930.12	-9338.61
18000.00	90.00	179.89	100.00	8887.12	-5930.12	-9438.61
18100.00	90.00	179.89	100.00	8887.11	-5930.11	-9538.61
18200.00	90.00	179.89	100.00	8887.11	-5930.11	-9638.61
18300.00	90.00	179.89	100.00	8887.10	-5930.10	-9738.61
18400.00	90.00	179.89	100.00	8887.10	-5930.10	-9838.61
18500.00	90.00	179.89	100.00	8887.09	-5930.09	-9938.61
18600.00	90.00	179.89	100.00	8887.09	-5930.09	-10038.61
18700.00	90.00	179.89	100.00	8887.08	-5930.08	-10138.61
18800.00	90.00	179.89	100.00	8887.08	-5930.08	-10238.61
18900.00	90.00	179.89	100.00	8887.07	-5930.07	-10338.61
19000.00	90.00	179.89	100.00	8887.07	-5930.07	-10438.61
19100.00	90.00	179.89	100.00	8887.06	-5930.06	-10538.61
19200.00	90.00	179.89	100.00	8887.06	-5930.06	-10638.61
19300.00	90.00	179.89	100.00	8887.05	-5930.05	-10738.61
19400.00	90.00	179.89	100.00	8887.05	-5930.05	-10838.61
19500.00	90.00	179.89	100.00	8887.04	-5930.04	-10938.61
19600.00	90.00	179.89	100.00	8887.04	-5930.04	-11038.61
19700.00	90.00	179.89	100.00	8887.03	-5930.03	-11138.61
19800.00	90.00	179.89	100.00	8887.02	-5930.02	-11238.61
19900.00	90.00	179.89	100.00	8887.02	-5930.02	-11338.61
20000.00	90.00	179.89	100.00	8887.01	-5930.01	-11438.61
20100.00	90.00	179.89	100.00	8887.01	-5930.01	-11538.61
20200.00	90.00	179.89	100.00	8887.00	-5930.00	-11638.61
20266.44	90.00	179.89	66.44	8887.00	-5930.00	-11705.04

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severi DLS	Build Rate BLD
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
1.51	631549.98	420299.81	32.155147	-104.041823	2.00	2.00

6.04	631554.51	420297.19	32.155140	-104.041808	2.00	2.00
13.59	631562.06	420292.83	32.155128	-104.041784	2.00	2.00
24.15	631572.62	420286.74	32.155111	-104.041750	2.00	2.00
37.69	631586.16	420278.92	32.155089	-104.041706	2.00	2.00
54.22	631602.69	420269.38	32.155063	-104.041653	2.00	2.00
56.08	631604.55	420268.30	32.155060	-104.041647	2.00	1.98
72.48	631620.95	420258.78	32.155033	-104.041594	0.00	0.00
90.77	631639.24	420248.16	32.155004	-104.041535	0.00	0.00
109.05	631657.52	420237.55	32.154975	-104.041476	0.00	0.00
127.33	631675.80	420226.94	32.154946	-104.041417	0.00	0.00
145.61	631694.08	420216.33	32.154916	-104.041358	0.00	0.00
163.89	631712.36	420205.71	32.154887	-104.041299	0.00	0.00
182.17	631730.64	420195.10	32.154858	-104.041240	0.00	0.00
200.46	631748.93	420184.49	32.154828	-104.041181	0.00	0.00
218.74	631767.21	420173.88	32.154799	-104.041122	0.00	0.00
237.02	631785.49	420163.26	32.154770	-104.041063	0.00	0.00
255.30	631803.77	420152.65	32.154740	-104.041004	0.00	0.00
273.58	631822.05	420142.04	32.154711	-104.040945	0.00	0.00
291.86	631840.33	420131.42	32.154682	-104.040886	0.00	0.00
310.15	631858.62	420120.81	32.154652	-104.040827	0.00	0.00
328.43	631876.90	420110.20	32.154623	-104.040768	0.00	0.00
346.71	631895.18	420099.59	32.154594	-104.040709	0.00	0.00
364.99	631913.46	420088.97	32.154565	-104.040650	0.00	0.00
383.27	631931.74	420078.36	32.154535	-104.040591	0.00	0.00
401.55	631950.02	420067.75	32.154506	-104.040532	0.00	0.00
419.84	631968.31	420057.14	32.154477	-104.040473	0.00	0.00
438.12	631986.59	420046.52	32.154447	-104.040414	0.00	0.00
456.40	632004.87	420035.91	32.154418	-104.040355	0.00	0.00
474.68	632023.15	420025.30	32.154389	-104.040296	0.00	0.00
492.96	632041.43	420014.68	32.154359	-104.040237	0.00	0.00
511.24	632059.71	420004.07	32.154330	-104.040178	0.00	0.00
529.53	632078.00	419993.46	32.154301	-104.040119	0.00	0.00
547.81	632096.28	419982.85	32.154271	-104.040060	0.00	0.00
566.09	632114.56	419972.23	32.154242	-104.040001	0.00	0.00
584.37	632132.84	419961.62	32.154213	-104.039942	0.00	0.00
602.65	632151.12	419951.01	32.154183	-104.039883	0.00	0.00
620.93	632169.40	419940.39	32.154154	-104.039824	0.00	0.00
639.22	632187.69	419929.78	32.154125	-104.039765	0.00	0.00
657.50	632205.97	419919.17	32.154096	-104.039706	0.00	0.00
675.78	632224.25	419908.56	32.154066	-104.039647	0.00	0.00
694.06	632242.53	419897.94	32.154037	-104.039588	0.00	0.00
712.34	632260.81	419887.33	32.154008	-104.039529	0.00	0.00
730.62	632279.09	419876.72	32.153978	-104.039470	0.00	0.00
748.91	632297.38	419866.11	32.153949	-104.039411	0.00	0.00

767.19	632315.66	419855.49	32.153920	-104.039352	0.00	0.00
785.47	632333.94	419844.88	32.153890	-104.039294	0.00	0.00
803.75	632352.22	419834.27	32.153861	-104.039235	0.00	0.00
822.03	632370.50	419823.65	32.153832	-104.039176	0.00	0.00
840.32	632388.79	419813.04	32.153802	-104.039117	0.00	0.00
858.60	632407.07	419802.43	32.153773	-104.039058	0.00	0.00
876.88	632425.35	419791.82	32.153744	-104.038999	0.00	0.00
895.16	632443.63	419781.20	32.153715	-104.038940	0.00	0.00
913.44	632461.91	419770.59	32.153685	-104.038881	0.00	0.00
931.72	632480.19	419759.98	32.153656	-104.038822	0.00	0.00
950.01	632498.48	419749.36	32.153627	-104.038763	0.00	0.00
968.29	632516.76	419738.75	32.153597	-104.038704	0.00	0.00
986.57	632535.04	419728.14	32.153568	-104.038645	0.00	0.00
1004.85	632553.32	419717.53	32.153539	-104.038586	0.00	0.00
1023.13	632571.60	419706.91	32.153509	-104.038527	0.00	0.00
1041.41	632589.88	419696.30	32.153480	-104.038468	0.00	0.00
1059.70	632608.17	419685.69	32.153451	-104.038409	0.00	0.00
1064.01	632612.48	419683.18	32.153444	-104.038395	0.00	0.00
1077.12	632625.59	419675.58	32.153423	-104.038353	2.00	-2.00
1091.65	632640.12	419667.14	32.153399	-104.038306	2.00	-2.00
1103.20	632651.67	419660.43	32.153381	-104.038268	2.00	-2.00
1111.75	632660.22	419655.47	32.153367	-104.038241	2.00	-2.00
1117.30	632665.77	419652.25	32.153358	-104.038223	2.00	-2.00
1119.83	632668.30	419650.78	32.153354	-104.038215	2.00	-2.00
1120.00	632668.47	419650.68	32.153354	-104.038214	2.00	-2.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.25	632668.72	419650.38	32.153353	-104.038213	10.00	10.00
1122.78	632671.25	419647.25	32.153345	-104.038205	10.00	10.00
1128.04	632676.51	419640.76	32.153327	-104.038188	10.00	10.00
1135.98	632684.45	419630.95	32.153300	-104.038163	10.00	10.00
1146.54	632695.01	419617.91	32.153264	-104.038129	10.00	10.00
1159.64	632708.11	419601.72	32.153219	-104.038087	10.00	10.00
1175.19	632723.66	419582.52	32.153166	-104.038037	10.00	10.00
1193.06	632741.53	419560.46	32.153105	-104.037979	10.00	10.00
1213.12	632761.59	419535.68	32.153037	-104.037914	10.00	10.00
1235.22	632783.69	419508.40	32.152962	-104.037843	10.00	10.00
1259.18	632807.65	419478.81	32.152881	-104.037766	10.00	10.00
1284.83	632833.30	419447.14	32.152793	-104.037683	10.00	10.00
1311.96	632860.43	419413.63	32.152701	-104.037596	10.00	10.00

1340.38	632888.85	419378.53	32.152604	-104.037505	10.00	10.00
1369.87	632918.34	419342.12	32.152504	-104.037410	10.00	10.00
1387.25	632935.72	419320.65	32.152445	-104.037354	10.00	10.00
1400.17	632948.64	419304.70	32.152401	-104.037312	5.00	5.00
1461.83	633010.30	419228.55	32.152191	-104.037113	5.00	5.00
1524.35	633072.82	419151.35	32.151978	-104.036912	5.00	5.00
1573.90	633122.37	419090.16	32.151810	-104.036753	5.00	5.00
1587.24	633135.71	419073.69	32.151764	-104.036710	0.00	0.00
1650.17	633198.64	418995.97	32.151550	-104.036507	0.00	0.00
1713.10	633261.57	418918.26	32.151336	-104.036304	0.00	0.00
1776.04	633324.51	418840.54	32.151122	-104.036102	0.00	0.00
1838.97	633387.44	418762.83	32.150908	-104.035899	0.00	0.00
1901.90	633450.37	418685.11	32.150694	-104.035696	0.00	0.00
1964.83	633513.30	418607.40	32.150480	-104.035494	0.00	0.00
1986.10	633534.57	418581.13	32.150407	-104.035425	0.00	0.00
2027.17	633575.64	418529.21	32.150264	-104.035293	2.00	0.00
2086.89	633635.36	418449.01	32.150043	-104.035101	2.00	0.00
2143.78	633692.25	418366.78	32.149817	-104.034918	2.00	0.00
2197.77	633746.24	418282.61	32.149585	-104.034744	2.00	0.00
2248.78	633797.25	418196.60	32.149348	-104.034580	2.00	0.00
2296.77	633845.24	418108.87	32.149107	-104.034426	2.00	0.00
2341.66	633890.13	418019.52	32.148861	-104.034281	2.00	0.00
2383.41	633931.88	417928.66	32.148611	-104.034147	2.00	0.00
2421.96	633970.43	417836.39	32.148357	-104.034024	2.00	0.00
2457.26	634005.73	417742.84	32.148099	-104.033910	2.00	0.00
2489.28	634037.75	417648.11	32.147839	-104.033808	2.00	0.00
2517.98	634066.45	417552.32	32.147575	-104.033716	2.00	0.00
2543.31	634091.78	417455.59	32.147309	-104.033635	2.00	0.00
2565.25	634113.72	417358.03	32.147041	-104.033565	2.00	0.00
2583.78	634132.25	417259.77	32.146771	-104.033506	2.00	0.00
2598.86	634147.33	417160.91	32.146499	-104.033458	2.00	0.00
2610.49	634158.96	417061.60	32.146226	-104.033421	2.00	0.00
2618.64	634167.11	416961.94	32.145952	-104.033396	2.00	0.00
2623.31	634171.78	416862.05	32.145677	-104.033382	2.00	0.00
2624.53	634173.00	416783.63	32.145461	-104.033379	2.00	0.00
2624.57	634173.04	416762.06	32.145402	-104.033379	0.00	0.00
2624.76	634173.23	416662.06	32.145127	-104.033379	0.00	0.00
2624.94	634173.41	416562.06	32.144852	-104.033379	0.00	0.00
2625.13	634173.60	416462.06	32.144577	-104.033379	0.00	0.00
2625.32	634173.79	416362.06	32.144302	-104.033380	0.00	0.00
2625.51	634173.98	416262.06	32.144028	-104.033380	0.00	0.00
2625.69	634174.16	416162.06	32.143753	-104.033380	0.00	0.00
2625.88	634174.35	416062.06	32.143478	-104.033381	0.00	0.00
2626.07	634174.54	415962.06	32.143203	-104.033381	0.00	0.00

2626.26	634174.73	415862.06	32.142928	-104.033381	0.00	0.00
2626.44	634174.91	415762.06	32.142653	-104.033382	0.00	0.00
2626.63	634175.10	415662.06	32.142378	-104.033382	0.00	0.00
2626.82	634175.29	415562.06	32.142103	-104.033382	0.00	0.00
2627.01	634175.48	415462.06	32.141828	-104.033382	0.00	0.00
2627.19	634175.66	415362.06	32.141554	-104.033383	0.00	0.00
2627.38	634175.85	415262.06	32.141279	-104.033383	0.00	0.00
2627.57	634176.04	415162.06	32.141004	-104.033383	0.00	0.00
2627.76	634176.23	415062.06	32.140729	-104.033384	0.00	0.00
2627.94	634176.41	414962.06	32.140454	-104.033384	0.00	0.00
2628.13	634176.60	414862.06	32.140179	-104.033384	0.00	0.00
2628.32	634176.79	414762.07	32.139904	-104.033384	0.00	0.00
2628.51	634176.98	414662.07	32.139629	-104.033385	0.00	0.00
2628.69	634177.16	414562.07	32.139354	-104.033385	0.00	0.00
2628.88	634177.35	414462.07	32.139080	-104.033385	0.00	0.00
2629.07	634177.54	414362.07	32.138805	-104.033386	0.00	0.00
2629.26	634177.73	414262.07	32.138530	-104.033386	0.00	0.00
2629.44	634177.91	414162.07	32.138255	-104.033386	0.00	0.00
2629.63	634178.10	414062.07	32.137980	-104.033387	0.00	0.00
2629.82	634178.29	413962.07	32.137705	-104.033387	0.00	0.00
2630.01	634178.48	413862.07	32.137430	-104.033387	0.00	0.00
2630.19	634178.66	413762.07	32.137155	-104.033387	0.00	0.00
2630.38	634178.85	413662.07	32.136880	-104.033388	0.00	0.00
2630.57	634179.04	413562.07	32.136606	-104.033388	0.00	0.00
2630.76	634179.23	413462.07	32.136331	-104.033388	0.00	0.00
2630.94	634179.41	413362.07	32.136056	-104.033389	0.00	0.00
2631.13	634179.60	413262.07	32.135781	-104.033389	0.00	0.00
2631.32	634179.79	413162.07	32.135506	-104.033389	0.00	0.00
2631.51	634179.98	413062.07	32.135231	-104.033389	0.00	0.00
2631.69	634180.16	412962.07	32.134956	-104.033390	0.00	0.00
2631.88	634180.35	412862.07	32.134681	-104.033390	0.00	0.00
2632.07	634180.54	412762.07	32.134406	-104.033390	0.00	0.00
2632.26	634180.73	412662.07	32.134132	-104.033391	0.00	0.00
2632.44	634180.91	412562.07	32.133857	-104.033391	0.00	0.00
2632.63	634181.10	412462.07	32.133582	-104.033391	0.00	0.00
2632.82	634181.29	412362.07	32.133307	-104.033392	0.00	0.00
2633.01	634181.48	412262.07	32.133032	-104.033392	0.00	0.00
2633.19	634181.66	412162.07	32.132757	-104.033392	0.00	0.00
2633.38	634181.85	412062.07	32.132482	-104.033392	0.00	0.00
2633.57	634182.04	411962.07	32.132207	-104.033393	0.00	0.00
2633.76	634182.23	411862.07	32.131932	-104.033393	0.00	0.00
2633.94	634182.41	411762.07	32.131657	-104.033393	0.00	0.00
2634.13	634182.60	411662.07	32.131383	-104.033394	0.00	0.00
2634.32	634182.79	411562.07	32.131108	-104.033394	0.00	0.00

2634.51	634182.98	411462.07	32.130833	-104.033394	0.00	0.00
2634.69	634183.16	411362.07	32.130558	-104.033394	0.00	0.00
2634.88	634183.35	411262.07	32.130283	-104.033395	0.00	0.00
2635.07	634183.54	411162.07	32.130008	-104.033395	0.00	0.00
2635.26	634183.73	411062.07	32.129733	-104.033395	0.00	0.00
2635.44	634183.91	410962.07	32.129458	-104.033396	0.00	0.00
2635.63	634184.10	410862.07	32.129183	-104.033396	0.00	0.00
2635.82	634184.29	410762.07	32.128909	-104.033396	0.00	0.00
2636.01	634184.48	410662.07	32.128634	-104.033397	0.00	0.00
2636.19	634184.66	410562.07	32.128359	-104.033397	0.00	0.00
2636.38	634184.85	410462.07	32.128084	-104.033397	0.00	0.00
2636.57	634185.04	410362.07	32.127809	-104.033397	0.00	0.00
2636.76	634185.23	410262.07	32.127534	-104.033398	0.00	0.00
2636.94	634185.41	410162.07	32.127259	-104.033398	0.00	0.00
2637.13	634185.60	410062.07	32.126984	-104.033398	0.00	0.00
2637.32	634185.79	409962.07	32.126709	-104.033399	0.00	0.00
2637.51	634185.98	409862.07	32.126435	-104.033399	0.00	0.00
2637.69	634186.16	409762.07	32.126160	-104.033399	0.00	0.00
2637.88	634186.35	409662.07	32.125885	-104.033399	0.00	0.00
2638.07	634186.54	409562.07	32.125610	-104.033400	0.00	0.00
2638.26	634186.73	409462.07	32.125335	-104.033400	0.00	0.00
2638.44	634186.91	409362.07	32.125060	-104.033400	0.00	0.00
2638.63	634187.10	409262.07	32.124785	-104.033401	0.00	0.00
2638.82	634187.29	409162.08	32.124510	-104.033401	0.00	0.00
2639.01	634187.48	409062.08	32.124235	-104.033401	0.00	0.00
2639.19	634187.66	408962.08	32.123961	-104.033402	0.00	0.00
2639.38	634187.85	408862.08	32.123686	-104.033402	0.00	0.00
2639.57	634188.04	408762.08	32.123411	-104.033402	0.00	0.00
2639.76	634188.23	408662.08	32.123136	-104.033402	0.00	0.00
2639.88	634188.35	408595.64	32.122953	-104.033403	0.00	0.00

Turn Rate	Vertical Section
TRN	VS
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.88

0.00	3.50
0.00	7.87
0.00	13.99
0.00	21.83
0.00	31.41
1.32	32.49
0.00	42.04
0.00	52.69
0.00	63.34
0.00	73.99
0.00	84.63
0.00	95.28
0.00	105.93
0.00	116.58
0.00	127.23
0.00	137.87
0.00	148.52
0.00	159.17
0.00	169.82
0.00	180.46
0.00	191.11
0.00	201.76
0.00	212.41
0.00	223.06
0.00	233.70
0.00	244.35
0.00	255.00
0.00	265.65
0.00	276.30
0.00	286.94
0.00	297.59
0.00	308.24
0.00	318.89
0.00	329.53
0.00	340.18
0.00	350.83
0.00	361.48
0.00	372.13
0.00	382.77
0.00	393.42
0.00	404.07
0.00	414.72
0.00	425.36
0.00	436.01

0.00	446.66
0.00	457.31
0.00	467.96
0.00	478.60
0.00	489.25
0.00	499.90
0.00	510.55
0.00	521.20
0.00	531.84
0.00	542.49
0.00	553.14
0.00	563.79
0.00	574.43
0.00	585.08
0.00	595.73
0.00	606.38
0.00	617.03
0.00	619.54
0.00	627.17
0.00	635.64
0.00	642.37
0.00	647.35
0.00	650.58
0.00	652.05
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.45
0.00	655.59
0.00	662.09
0.00	671.91
0.00	684.97
0.00	701.18
0.00	720.41
0.00	742.51
0.00	767.32
0.00	794.65
0.00	824.29
0.00	856.01
0.00	889.57

0.00	924.72
0.00	961.19
0.00	982.69
0.00	998.67
0.00	1074.93
0.00	1152.25
0.00	1213.54
0.00	1230.04
0.00	1307.87
0.00	1385.71
0.00	1463.54
0.00	1541.38
0.00	1619.22
0.00	1697.05
0.00	1723.36
2.00	1775.36
2.00	1855.67
2.00	1938.02
2.00	2022.29
2.00	2108.39
2.00	2196.21
2.00	2285.65
2.00	2376.59
2.00	2468.93
2.00	2562.56
2.00	2657.35
2.00	2753.19
2.00	2849.97
2.00	2947.57
2.00	3045.87
2.00	3144.75
2.00	3244.09
2.00	3343.77
2.00	3443.66
2.00	3522.08
0.00	3543.65
0.00	3643.65
0.00	3743.65
0.00	3843.65
0.00	3943.65
0.00	4043.65
0.00	4143.65
0.00	4243.65
0.00	4343.65

0.00	4443.65
0.00	4543.65
0.00	4643.65
0.00	4743.65
0.00	4843.65
0.00	4943.65
0.00	5043.65
0.00	5143.65
0.00	5243.65
0.00	5343.65
0.00	5443.65
0.00	5543.65
0.00	5643.65
0.00	5743.65
0.00	5843.65
0.00	5943.65
0.00	6043.65
0.00	6143.65
0.00	6243.65
0.00	6343.65
0.00	6443.65
0.00	6543.65
0.00	6643.65
0.00	6743.65
0.00	6843.65
0.00	6943.65
0.00	7043.65
0.00	7143.65
0.00	7243.65
0.00	7343.65
0.00	7443.65
0.00	7543.65
0.00	7643.65
0.00	7743.65
0.00	7843.65
0.00	7943.65
0.00	8043.65
0.00	8143.65
0.00	8243.65
0.00	8343.65
0.00	8443.65
0.00	8543.65
0.00	8643.65
0.00	8743.65

0.00	8843.65
0.00	8943.65
0.00	9043.65
0.00	9143.65
0.00	9243.65
0.00	9343.65
0.00	9443.65
0.00	9543.65
0.00	9643.65
0.00	9743.65
0.00	9843.65
0.00	9943.65
0.00	10043.65
0.00	10143.65
0.00	10243.65
0.00	10343.65
0.00	10443.65
0.00	10543.65
0.00	10643.65
0.00	10743.65
0.00	10843.65
0.00	10943.65
0.00	11043.65
0.00	11143.65
0.00	11243.65
0.00	11343.65
0.00	11443.65
0.00	11543.65
0.00	11643.65
0.00	11710.09

Well Control Plan

Warning Signs of a Kick

If a kick is ever suspected, perform flow check.

While Drilling:

1. Drilling break or increase in penetration rate
2. Increase of flow
3. Pit gain
4. Flow without pumping
5. Circulating pressure decrease and/or spm increase
6. Increase in gas cutting at the shakers
7. Decrease in cuttings at shakers

While Tripping:

1. Hole not taking the proper fill on trip out of hole
2. Hole returns too much mud on trip in hole
3. Flow without pumping

While Out of the Hole:

1. Flow
2. Pit gain

Well Control Procedures with Diverter

A TIW valve in the open position must be on the rig floor at all times.

If rotating head is installed:

1. Perform flow check.
2. If well is flowing, divert flow down flow line and through separator, before returning across shakers.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.

4. If well becomes uncontrollable, close annular, which will open HCR to divert flow away from rig.

If rotating head is not installed:

1. Perform flow check.
2. If well is flowing uncontrollably, close annular, which will open HCR to divert flow away from rig.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.
4. After 10 ppg is circulated around shut pumps off and perform flow check.

Well Control Procedures

Coterra follows a hard shut-in procedure. Choke will be in the closed position.

General Well Control

1. If in doubt, secure the well first, then inform your supervisor.
2. Never wait for approval to shut in the well.
3. Verify that the mud pump is off before you close the BOP.
4. Always check and verify the well is properly secured after shut in.
5. Always install TIW valve in the open position.
6. If TIW valve is installed and then closed, apply estimated DP shut-in pressure above valve before opening.
7. The weak link in the mud system and mud lines is the pressure relief valve or pop off valve on the mud pump.
8. Keep the TIW valve wrench in a designated location on the rig floor and in the open position.
9. Use a drill string float above the bit. Don't perforate or disable the float.
10. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Hard Shut-In

1. Remote choke is closed.
2. Stop pumping and space out.
3. Check for flow.
4. To shut in, close annular or pipe ram if no annular is present.
5. Open the HCR valve.
6. Check systems, bump float. Record Initial Shut in Drill pipe pressure and Initial shut in casing pressure.

Flow Check when on Bottom

1. Alert crew & stop rotating
2. Pick up and space out
3. Shut down pumps
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Drilling

1. After flow has been detected via flow check, kill pumps, shut in well and open HCR
2. Verify well is shut-in and flow has stopped
3. Notify supervisory personnel
4. Record data
5. Begin go forward planning

Flow Check while Tripping

1. Alert crew & pick up / space out
2. Stop pipe movement. Set slips with tool joint accessible at rotary table
3. Install open TIW safety valve and close valve
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Tripping

1. Install open TIW safety valve and close valve
2. Shut-in the well
3. Verify well is shut-in and flow has stopped
4. Install IBOP
5. Notify supervisory personnel
6. Record data; SICP, shut-in time, kick depth, and pit gain
7. Begin go forward planning

Shutting in while Out of Hole

1. Sound alarm
2. Shut-in well: close blind rams.
3. Verify well is shut-in and monitor pressures.
4. Notify supervisory personnel
5. Record data; SICP, shut-in time, kick depth, and pit gain
6. Begin go forward planning

Information to Record while Shut-In

1. Shut in drill pipe pressure every 5 minutes

2. Shut in casing pressure every 5 minutes
3. Pit gain
4. Total volume in pit system
5. Mud weight in suction pit
6. Current depth
7. Total depth
8. Time the well is shut in

H2S with Annular Diverter:

1. Kill Pumps, close annular, which will open HCR, to divert flow away from rig.
2. Muster and take head count.
3. Call ASSI to check location for H2S. Call Coterra superintendent.
4. After ASSI has checked for H2S the path forward will be decided from Coterra superintendent.

H2S with BOP's:

1. Kill pumps
2. Shut in annular with HCR open and chokes closed.
3. Muster and take head count.
4. Call ASSI to check location for H2S. Call Coterra superintendent.
5. After ASSI has checked for H2S. discuss path forward with Coterra superintendent

Procedure for Closing Blind Rams

- Open HCR valve (visually check that the HCR valve is open – stem in the valve is open, stem out the valve is closed).
- Verify all circulating pumps are off (mud pumps, trip tank pump, etc.)
- Ensure that the hydraulic choke is in the closed position.
- Close the blind rams and place the "blind rams closed, bleed pressure and remove hole cover before opening" sign on the console.
- Monitor the shut in casing pressure gauge periodically while the blinds are closed to ensure that wellbore pressure isn't building. If pressure build up is observed, monitor the shut in casing pressure more frequently & document. Notify rig management and Coterra representative of the pressure build up.
- Ensure that the inner bushings are locked into the master bushings if applicable.
- Install hole cover.

Procedure for Opening Blind Rams

- Make sure choke manifold is aligned correctly.
- Open the hydraulic choke to bleed any trapped pressure that may be under the blind rams. (Even if the casing pressure gauge is reading zero).

- Confirm that no flow is discharging into the trip tank or possum bellies of the shale shaker (wherever the separator is discharging into).
- Remove hole cover.
- Confirm that the inner bushing are locked into the master bushings if applicable.
- Clear all personnel from the rig floor.
- Remove sign and open blind rams.
- Return the BOPE to its original operating alignment.

BOP Drills

- Drilling crews should conduct BOP drills weekly from BOP nipple up to TD for reaction time to properly simulate securing the well. Record BOP drills on that day's report.
- Standard precautions such as checking the accumulator for proper working pressure, function testing rams, and recording slow pump rates are performed on a daily basis or on trips..
- All supervisory personnel onsite need to be properly trained and currently hold certification from an approved blowout prevention school. Any deviation from this needs to be discussed prior to spud.
- Drillers should always notify the tool pusher and the drilling foreman before performing a blowout drill.

Choke Manifold Freeze Prevention

- When possible, blow out the choke & kill lines as well as the choke manifold with rig air to remove water based fluids.
- When clear water is being placed into the choke & kill line as well as the choke manifold, make sure that the water has a mixture of 30% methanol added.
- When applicable, choke & kill lines as well as choke manifold needs to be pumped through with the rig pump by the driller to ensure that the lines aren't plugged with settling barite or solids.

Well Control Plan

Warning Signs of a Kick

If a kick is ever suspected, perform flow check.

While Drilling:

1. Drilling break or increase in penetration rate
2. Increase of flow
3. Pit gain
4. Flow without pumping
5. Circulating pressure decrease and/or spm increase
6. Increase in gas cutting at the shakers
7. Decrease in cuttings at shakers

While Tripping:

1. Hole not taking the proper fill on trip out of hole
2. Hole returns too much mud on trip in hole
3. Flow without pumping

While Out of the Hole:

1. Flow
2. Pit gain

Well Control Procedures with Diverter

A TIW valve in the open position must be on the rig floor at all times.

If rotating head is installed:

1. Perform flow check.
2. If well is flowing, divert flow down flow line and through separator, before returning across shakers.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.

4. If well becomes uncontrollable, close annular, which will open HCR to divert flow away from rig.

If rotating head is not installed:

1. Perform flow check.
2. If well is flowing uncontrollably, close annular, which will open HCR to divert flow away from rig.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.
4. After 10 ppg is circulated around shut pumps off and perform flow check.

Well Control Procedures

Coterra follows a hard shut-in procedure. Choke will be in the closed position.

General Well Control

1. If in doubt, secure the well first, then inform your supervisor.
2. Never wait for approval to shut in the well.
3. Verify that the mud pump is off before you close the BOP.
4. Always check and verify the well is properly secured after shut in.
5. Always install TIW valve in the open position.
6. If TIW valve is installed and then closed, apply estimated DP shut-in pressure above valve before opening.
7. The weak link in the mud system and mud lines is the pressure relief valve or pop off valve on the mud pump.
8. Keep the TIW valve wrench in a designated location on the rig floor and in the open position.
9. Use a drill string float above the bit. Don't perforate or disable the float.
10. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Hard Shut-In

1. Remote choke is closed.
2. Stop pumping and space out.
3. Check for flow.
4. To shut in, close annular or pipe ram if no annular is present.
5. Open the HCR valve.
6. Check systems, bump float. Record Initial Shut in Drill pipe pressure and Initial shut in casing pressure.

Flow Check when on Bottom

1. Alert crew & stop rotating
2. Pick up and space out
3. Shut down pumps
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Drilling

1. After flow has been detected via flow check, kill pumps, shut in well and open HCR
2. Verify well is shut-in and flow has stopped
3. Notify supervisory personnel
4. Record data
5. Begin go forward planning

Flow Check while Tripping

1. Alert crew & pick up / space out
2. Stop pipe movement. Set slips with tool joint accessible at rotary table
3. Install open TIW safety valve and close valve
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Tripping

1. Install open TIW safety valve and close valve
2. Shut-in the well
3. Verify well is shut-in and flow has stopped
4. Install IBOP
5. Notify supervisory personnel
6. Record data; SICP, shut-in time, kick depth, and pit gain
7. Begin go forward planning

Shutting in while Out of Hole

1. Sound alarm
2. Shut-in well: close blind rams.
3. Verify well is shut-in and monitor pressures.
4. Notify supervisory personnel
5. Record data; SICP, shut-in time, kick depth, and pit gain
6. Begin go forward planning

Information to Record while Shut-In

1. Shut in drill pipe pressure every 5 minutes

2. Shut in casing pressure every 5 minutes
3. Pit gain
4. Total volume in pit system
5. Mud weight in suction pit
6. Current depth
7. Total depth
8. Time the well is shut in

H2S with Annular Diverter:

1. Kill Pumps, close annular, which will open HCR, to divert flow away from rig.
2. Muster and take head count.
3. Call ASSI to check location for H2S. Call Coterra superintendent.
4. After ASSI has checked for H2S the path forward will be decided from Coterra superintendent.

H2S with BOP's:

1. Kill pumps
2. Shut in annular with HCR open and chokes closed.
3. Muster and take head count.
4. Call ASSI to check location for H2S. Call Coterra superintendent.
5. After ASSI has checked for H2S. discuss path forward with Coterra superintendent

Procedure for Closing Blind Rams

- Open HCR valve (visually check that the HCR valve is open – stem in the valve is open, stem out the valve is closed).
- Verify all circulating pumps are off (mud pumps, trip tank pump, etc.)
- Ensure that the hydraulic choke is in the closed position.
- Close the blind rams and place the "blind rams closed, bleed pressure and remove hole cover before opening" sign on the console.
- Monitor the shut in casing pressure gauge periodically while the blinds are closed to ensure that wellbore pressure isn't building. If pressure build up is observed, monitor the shut in casing pressure more frequently & document. Notify rig management and Coterra representative of the pressure build up.
- Ensure that the inner bushings are locked into the master bushings if applicable.
- Install hole cover.

Procedure for Opening Blind Rams

- Make sure choke manifold is aligned correctly.
- Open the hydraulic choke to bleed any trapped pressure that may be under the blind rams. (Even if the casing pressure gauge is reading zero).

- Confirm that no flow is discharging into the trip tank or possum bellies of the shale shaker (wherever the separator is discharging into).
- Remove hole cover.
- Confirm that the inner bushing are locked into the master bushings if applicable.
- Clear all personnel from the rig floor.
- Remove sign and open blind rams.
- Return the BOPE to its original operating alignment.

BOP Drills

- Drilling crews should conduct BOP drills weekly from BOP nipple up to TD for reaction time to properly simulate securing the well. Record BOP drills on that day's report.
- Standard precautions such as checking the accumulator for proper working pressure, function testing rams, and recording slow pump rates are performed on a daily basis or on trips..
- All supervisory personnel onsite need to be properly trained and currently hold certification from an approved blowout prevention school. Any deviation from this needs to be discussed prior to spud.
- Drillers should always notify the tool pusher and the drilling foreman before performing a blowout drill.

Choke Manifold Freeze Prevention

- When possible, blow out the choke & kill lines as well as the choke manifold with rig air to remove water based fluids.
- When clear water is being placed into the choke & kill line as well as the choke manifold, make sure that the water has a mixture of 30% methanol added.
- When applicable, choke & kill lines as well as choke manifold needs to be pumped through with the rig pump by the driller to ensure that the lines aren't plugged with settling barite or solids.

1. Geological Formations

TVD of target 8,887
MD at TD 20,266

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2679	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
2nd Bone Spring Sand	8048	Hydrocarbons	
3rd Bone Spring Carb	8541	Hydrocarbons	
3rd Bone Spring Carb - Harkey	8807	Hydrocarbons	
3rd Bone Spring Carb - Harkey - Target	8887	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2479	9-5/8"	36.00	J-55	LT&C	1.57	2.73	5.08
8 3/4	0	8429								
8 3/4	8429	9479	8887	7"	26.00	P-110	BT&C	1.42	2.27	69.70
6	8429	20266	8887	4-1/2"	11.60	HCP-110	BT&C	2.01	2.44	69.08
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N
Is AC Report included?	Y

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	577	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	154	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	441	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	146	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	382	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	175	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	859	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	59
Production	2200	25
Completion System	8550	10

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		
8 3/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		
6	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1190'	Fresh Water	7.83 - 8.33	28	N/C
1190' to 2500'	Brine Water	9.50 - 10.00	30-32	N/C
2500' to 9479'	Cut Brine or OBM	9.00 - 9.50	27-70	N/C
9479' to 20266'	OBM	9.00 - 9.50	50-70	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
X	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4390 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

10M
1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.
2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 10K psi.
BOPE Additional Information & Testing
1. After running the first string of casing, a 10M BOP/BOPE system with 10M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure (10K for all BOPE). For the low test, the system will be tested to 250 psi.
2. All BOP equipment will be tested utilizing a conventional test plug.
3. A remote kill line is included in the BOPE system
4. All casing strings will be tested per Onshore Order #2, to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of casing burst.
5. If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.
Additional Well Control Notes
1. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 8H

OH

Plan: Plan 1

Total Directional
"Driven by TOTAL performance"
total

Standard Plan Report

24 June, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Project Eddy 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 Riverbend 12-13 Federal Com

Site Position:		**Northing:**	420,302.20 usft	**Latitude:**	32.1551540
From:	Map	**Easting:**	631,468.50 usft	**Longitude:**	-104.0420860
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Riverbend 12-13 Federal Com 8H

Well Position	**+N/-S**	0.00 usft	**Northing:**	420,300.68 usft	**Latitude:**	32.1551492
	+E/-W	0.00 usft	**Easting:**	631,548.47 usft	**Longitude:**	-104.0418276
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,934.00 usft
Grid Convergence:		0.16 °				

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM2025	8/19/2025	6.42	59.67	47,172.80000000

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	179.89

Survey Tool Program **Date** 6/24/2025

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	20,266.44	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Plan Summary

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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	12.00	120.00	1,795.62	-31.30	54.22	2.00	2.00	0.00	120.00	
1,810.29	12.20	120.14	1,805.68	-32.38	56.08	2.00	1.98	1.32	8.02	
7,323.61	12.20	120.14	7,194.42	-617.50	1,064.01	0.00	0.00	0.00	0.00	
7,933.80	0.00	0.00	7,800.00	-650.00	1,120.00	2.00	-2.00	0.00	180.00	
8,428.80	0.00	0.00	8,295.00	-650.00	1,120.00	0.00	0.00	0.00	0.00	
9,178.80	75.00	141.00	8,848.43	-980.03	1,387.25	10.00	10.00	0.00	141.00	
9,478.80	90.00	141.00	8,887.48	-1,210.52	1,573.90	5.00	5.00	0.00	0.00	
10,133.80	90.00	141.00	8,887.48	-1,719.55	1,986.10	0.00	0.00	0.00	0.00	
12,078.43	90.00	179.89	8,887.43	-3,517.05	2,624.53	2.00	0.00	2.00	90.00	
20,266.44	90.00	179.89	8,887.00	-11,705.04	2,639.88	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	0.00	0.00
1,300.00	2.00	120.00	1,299.98	-0.87	1.51	420,299.81	631,549.98	32.1551468	-104.0418227	0.88	2.00	2.00	0.00
1,400.00	4.00	120.00	1,399.84	-3.49	6.04	420,297.19	631,554.51	32.1551396	-104.0418081	3.50	2.00	2.00	0.00
1,500.00	6.00	120.00	1,499.45	-7.85	13.59	420,292.83	631,562.06	32.1551275	-104.0417837	7.87	2.00	2.00	0.00
1,600.00	8.00	120.00	1,598.70	-13.94	24.14	420,286.74	631,572.61	32.1551107	-104.0417497	13.99	2.00	2.00	0.00
1,700.00	10.00	120.00	1,697.47	-21.76	37.69	420,278.92	631,586.16	32.1550891	-104.0417060	21.83	2.00	2.00	0.00
1,800.00	12.00	120.00	1,795.62	-31.30	54.22	420,269.38	631,602.69	32.1550628	-104.0416527	31.41	2.00	2.00	0.00
1,810.29	12.20	120.14	1,805.68	-32.38	56.08	420,268.30	631,604.55	32.1550598	-104.0416467	32.49	2.00	1.98	1.32

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,900.00	12.20	120.14	1,893.37	-41.90	72.48	420,258.78	631,620.95	32.1550335	-104.0415937	42.04	0.00	0.00	0.00
1,959.99	12.20	120.14	1,952.00	-48.27	83.45	420,252.41	631,631.92	32.1550159	-104.0415584	48.43	0.00	0.00	0.00
Top Salt													
2,000.00	12.20	120.14	1,991.11	-52.52	90.76	420,248.16	631,639.23	32.1550042	-104.0415348	52.69	0.00	0.00	0.00
2,100.00	12.20	120.14	2,088.85	-63.13	109.05	420,237.55	631,657.52	32.1549749	-104.0414758	63.34	0.00	0.00	0.00
2,200.00	12.20	120.14	2,186.59	-73.74	127.33	420,226.94	631,675.80	32.1549456	-104.0414168	73.99	0.00	0.00	0.00
2,300.00	12.20	120.14	2,284.33	-84.35	145.61	420,216.33	631,694.08	32.1549162	-104.0413578	84.63	0.00	0.00	0.00
2,400.00	12.20	120.14	2,382.07	-94.97	163.89	420,205.71	631,712.36	32.1548869	-104.0412988	95.28	0.00	0.00	0.00
2,500.00	12.20	120.14	2,479.81	-105.58	182.17	420,195.10	631,730.64	32.1548576	-104.0412399	105.93	0.00	0.00	0.00
2,600.00	12.20	120.14	2,577.55	-116.19	200.45	420,184.49	631,748.92	32.1548283	-104.0411809	116.58	0.00	0.00	0.00
2,700.00	12.20	120.14	2,675.29	-126.81	218.74	420,173.87	631,767.21	32.1547990	-104.0411219	127.22	0.00	0.00	0.00
2,703.80	12.20	120.14	2,679.00	-127.21	219.43	420,173.47	631,767.90	32.1547979	-104.0411197	127.63	0.00	0.00	0.00
Base Salt/Lamar													
2,800.00	12.20	120.14	2,773.03	-137.42	237.02	420,163.26	631,785.49	32.1547697	-104.0410629	137.87	0.00	0.00	0.00
2,833.73	12.20	120.14	2,806.00	-141.00	243.19	420,159.68	631,791.66	32.1547598	-104.0410430	141.46	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
2,900.00	12.20	120.14	2,870.77	-148.03	255.30	420,152.65	631,803.77	32.1547404	-104.0410039	148.52	0.00	0.00	0.00
3,000.00	12.20	120.14	2,968.51	-158.64	273.58	420,142.04	631,822.05	32.1547111	-104.0409450	159.17	0.00	0.00	0.00
3,100.00	12.20	120.14	3,066.25	-169.26	291.86	420,131.42	631,840.33	32.1546818	-104.0408860	169.82	0.00	0.00	0.00
3,200.00	12.20	120.14	3,163.99	-179.87	310.15	420,120.81	631,858.62	32.1546525	-104.0408270	180.46	0.00	0.00	0.00
3,300.00	12.20	120.14	3,261.73	-190.48	328.43	420,110.20	631,876.90	32.1546232	-104.0407680	191.11	0.00	0.00	0.00
3,400.00	12.20	120.14	3,359.47	-201.09	346.71	420,099.59	631,895.18	32.1545938	-104.0407090	201.76	0.00	0.00	0.00
3,500.00	12.20	120.14	3,457.21	-211.71	364.99	420,088.97	631,913.46	32.1545645	-104.0406501	212.41	0.00	0.00	0.00
3,600.00	12.20	120.14	3,554.95	-222.32	383.27	420,078.36	631,931.74	32.1545352	-104.0405911	223.06	0.00	0.00	0.00
3,665.53	12.20	120.14	3,619.00	-229.27	395.25	420,071.41	631,943.72	32.1545160	-104.0405524	230.03	0.00	0.00	0.00
Cherry Canyon													
3,700.00	12.20	120.14	3,652.69	-232.93	401.55	420,067.75	631,950.02	32.1545059	-104.0405321	233.70	0.00	0.00	0.00
3,800.00	12.20	120.14	3,750.43	-243.55	419.84	420,057.13	631,968.31	32.1544766	-104.0404731	244.35	0.00	0.00	0.00
3,900.00	12.20	120.14	3,848.17	-254.16	438.12	420,046.52	631,986.59	32.1544473	-104.0404141	255.00	0.00	0.00	0.00
4,000.00	12.20	120.14	3,945.91	-264.77	456.40	420,035.91	632,004.87	32.1544180	-104.0403551	265.65	0.00	0.00	0.00
4,100.00	12.20	120.14	4,043.65	-275.38	474.68	420,025.30	632,023.15	32.1543887	-104.0402962	276.29	0.00	0.00	0.00
4,200.00	12.20	120.14	4,141.39	-286.00	492.96	420,014.68	632,041.43	32.1543594	-104.0402372	286.94	0.00	0.00	0.00
4,300.00	12.20	120.14	4,239.13	-296.61	511.24	420,004.07	632,059.71	32.1543300	-104.0401782	297.59	0.00	0.00	0.00
4,400.00	12.20	120.14	4,336.87	-307.22	529.53	419,993.46	632,078.00	32.1543007	-104.0401192	308.24	0.00	0.00	0.00
4,500.00	12.20	120.14	4,434.61	-317.83	547.81	419,982.85	632,096.28	32.1542714	-104.0400602	318.89	0.00	0.00	0.00
4,600.00	12.20	120.14	4,532.35	-328.45	566.09	419,972.23	632,114.56	32.1542421	-104.0400013	329.53	0.00	0.00	0.00
4,700.00	12.20	120.14	4,630.09	-339.06	584.37	419,961.62	632,132.84	32.1542128	-104.0399423	340.18	0.00	0.00	0.00
4,800.00	12.20	120.14	4,727.83	-349.67	602.65	419,951.01	632,151.12	32.1541835	-104.0398833	350.83	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,891.23	12.20	120.14	4,817.00	-359.36	619.33	419,941.33	632,167.80	32.1541568	-104.0398295	360.54	0.00	0.00	0.00
Brushy Canyon													
4,900.00	12.20	120.14	4,825.57	-360.29	620.93	419,940.39	632,169.40	32.1541542	-104.0398243	361.48	0.00	0.00	0.00
5,000.00	12.20	120.14	4,923.31	-370.90	639.22	419,929.78	632,187.69	32.1541249	-104.0397653	372.13	0.00	0.00	0.00
5,100.00	12.20	120.14	5,021.05	-381.51	657.50	419,919.17	632,205.97	32.1540956	-104.0397064	382.77	0.00	0.00	0.00
5,200.00	12.20	120.14	5,118.79	-392.12	675.78	419,908.56	632,224.25	32.1540663	-104.0396474	393.42	0.00	0.00	0.00
5,300.00	12.20	120.14	5,216.53	-402.74	694.06	419,897.94	632,242.53	32.1540369	-104.0395884	404.07	0.00	0.00	0.00
5,400.00	12.20	120.14	5,314.27	-413.35	712.34	419,887.33	632,260.81	32.1540076	-104.0395294	414.72	0.00	0.00	0.00
5,500.00	12.20	120.14	5,412.01	-423.96	730.62	419,876.72	632,279.09	32.1539783	-104.0394704	425.36	0.00	0.00	0.00
5,600.00	12.20	120.14	5,509.75	-434.58	748.91	419,866.10	632,297.38	32.1539490	-104.0394115	436.01	0.00	0.00	0.00
5,700.00	12.20	120.14	5,607.50	-445.19	767.19	419,855.49	632,315.66	32.1539197	-104.0393525	446.66	0.00	0.00	0.00
5,800.00	12.20	120.14	5,705.24	-455.80	785.47	419,844.88	632,333.94	32.1538904	-104.0392935	457.31	0.00	0.00	0.00
5,862.17	12.20	120.14	5,766.00	-462.40	796.84	419,838.28	632,345.31	32.1538722	-104.0392568	463.93	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	12.20	120.14	5,802.98	-466.41	803.75	419,834.27	632,352.22	32.1538611	-104.0392345	467.96	0.00	0.00	0.00
6,000.00	12.20	120.14	5,900.72	-477.03	822.03	419,823.65	632,370.50	32.1538318	-104.0391755	478.60	0.00	0.00	0.00
6,100.00	12.20	120.14	5,998.46	-487.64	840.31	419,813.04	632,388.78	32.1538025	-104.0391166	489.25	0.00	0.00	0.00
6,200.00	12.20	120.14	6,096.20	-498.25	858.60	419,802.43	632,407.07	32.1537731	-104.0390576	499.90	0.00	0.00	0.00
6,300.00	12.20	120.14	6,193.94	-508.86	876.88	419,791.82	632,425.35	32.1537438	-104.0389986	510.55	0.00	0.00	0.00
6,400.00	12.20	120.14	6,291.68	-519.48	895.16	419,781.20	632,443.63	32.1537145	-104.0389396	521.20	0.00	0.00	0.00
6,500.00	12.20	120.14	6,389.42	-530.09	913.44	419,770.59	632,461.91	32.1536852	-104.0388806	531.84	0.00	0.00	0.00
6,522.08	12.20	120.14	6,411.00	-532.43	917.48	419,768.25	632,465.95	32.1536787	-104.0388676	534.19	0.00	0.00	0.00
Bone Spring Lime													
6,600.00	12.20	120.14	6,487.16	-540.70	931.72	419,759.98	632,480.19	32.1536559	-104.0388217	542.49	0.00	0.00	0.00
6,700.00	12.20	120.14	6,584.90	-551.32	950.01	419,749.36	632,498.48	32.1536266	-104.0387627	553.14	0.00	0.00	0.00
6,800.00	12.20	120.14	6,682.64	-561.93	968.29	419,738.75	632,516.76	32.1535973	-104.0387037	563.79	0.00	0.00	0.00
6,900.00	12.20	120.14	6,780.38	-572.54	986.57	419,728.14	632,535.04	32.1535680	-104.0386447	574.43	0.00	0.00	0.00
7,000.00	12.20	120.14	6,878.12	-583.15	1,004.85	419,717.53	632,553.32	32.1535387	-104.0385857	585.08	0.00	0.00	0.00
7,100.00	12.20	120.14	6,975.86	-593.77	1,023.13	419,706.91	632,571.60	32.1535094	-104.0385268	595.73	0.00	0.00	0.00
7,200.00	12.20	120.14	7,073.60	-604.38	1,041.41	419,696.30	632,589.88	32.1534800	-104.0384678	606.38	0.00	0.00	0.00
7,300.00	12.20	120.14	7,171.34	-614.99	1,059.70	419,685.69	632,608.17	32.1534507	-104.0384088	617.03	0.00	0.00	0.00
7,323.61	12.20	120.14	7,194.42	-617.50	1,064.01	419,683.18	632,612.48	32.1534438	-104.0383949	619.54	0.00	0.00	0.00
7,400.00	10.68	120.14	7,269.29	-625.10	1,077.11	419,675.58	632,625.58	32.1534228	-104.0383526	627.17	2.00	-2.00	0.00
7,493.06	8.81	120.14	7,361.00	-633.01	1,090.74	419,667.67	632,639.21	32.1534010	-104.0383087	635.11	2.00	-2.00	0.00
1st Bone Spring Sand													
7,500.00	8.68	120.14	7,367.86	-633.54	1,091.65	419,667.14	632,640.12	32.1533995	-104.0383057	635.64	2.00	-2.00	0.00
7,600.00	6.68	120.14	7,466.96	-640.25	1,103.20	419,660.43	632,651.67	32.1533810	-104.0382685	642.36	2.00	-2.00	0.00
7,700.00	4.68	120.14	7,566.46	-645.21	1,111.75	419,655.47	632,660.22	32.1533673	-104.0382409	647.35	2.00	-2.00	0.00
7,800.00	2.68	120.14	7,666.25	-648.43	1,117.30	419,652.25	632,665.77	32.1533584	-104.0382230	650.58	2.00	-2.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.00	0.68	120.14	7,766.20	-649.90	1,119.83	419,650.78	632,668.30	32.1533543	-104.0382148	652.05	2.00	-2.00	0.00
7,933.80	0.00	0.00	7,800.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	2.00	-2.00	0.00
8,000.00	0.00	0.00	7,866.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,100.00	0.00	0.00	7,966.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,181.80	0.00	0.00	8,048.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
2nd Bone Spring Sand													
8,200.00	0.00	0.00	8,066.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,300.00	0.00	0.00	8,166.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,400.00	0.00	0.00	8,266.20	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,428.80	0.00	0.00	8,295.00	-650.00	1,120.00	419,650.68	632,668.47	32.1533540	-104.0382143	652.15	0.00	0.00	0.00
8,450.00	2.12	141.00	8,316.20	-650.30	1,120.25	419,650.38	632,668.72	32.1533532	-104.0382135	652.45	10.00	10.00	0.00
8,500.00	7.12	141.00	8,366.02	-653.43	1,122.78	419,647.25	632,671.25	32.1533446	-104.0382053	655.59	10.00	10.00	0.00
8,550.00	12.12	141.00	8,415.30	-659.93	1,128.04	419,640.75	632,676.51	32.1533267	-104.0381884	662.09	10.00	10.00	0.00
8,600.00	17.12	141.00	8,463.67	-669.73	1,135.98	419,630.95	632,684.45	32.1532997	-104.0381628	671.91	10.00	10.00	0.00
8,650.00	22.12	141.00	8,510.75	-682.77	1,146.54	419,617.91	632,695.01	32.1532637	-104.0381288	684.97	10.00	10.00	0.00
8,683.06	25.43	141.00	8,541.00	-693.13	1,154.93	419,607.55	632,703.40	32.1532352	-104.0381018	695.35	10.00	10.00	0.00
3rd Bone Spring Carb													
8,700.00	27.12	141.00	8,556.19	-698.96	1,159.64	419,601.72	632,708.11	32.1532192	-104.0380866	701.18	10.00	10.00	0.00
8,750.00	32.12	141.00	8,599.64	-718.16	1,175.19	419,582.52	632,723.66	32.1531663	-104.0380365	720.41	10.00	10.00	0.00
8,800.00	37.12	141.00	8,640.77	-740.22	1,193.06	419,560.46	632,741.53	32.1531055	-104.0379790	742.51	10.00	10.00	0.00
8,850.00	42.12	141.00	8,679.28	-765.00	1,213.12	419,535.68	632,761.59	32.1530372	-104.0379144	767.32	10.00	10.00	0.00
8,900.00	47.12	141.00	8,714.85	-792.28	1,235.22	419,508.40	632,783.69	32.1529621	-104.0378432	794.65	10.00	10.00	0.00
8,950.00	52.12	141.00	8,747.24	-821.87	1,259.18	419,478.81	632,807.65	32.1528805	-104.0377661	824.29	10.00	10.00	0.00
9,000.00	57.12	141.00	8,776.18	-853.54	1,284.83	419,447.14	632,833.30	32.1527933	-104.0376835	856.01	10.00	10.00	0.00
9,050.00	62.12	141.00	8,801.45	-887.05	1,311.96	419,413.63	632,860.43	32.1527010	-104.0375961	889.57	10.00	10.00	0.00
9,062.10	63.33	141.00	8,807.00	-895.41	1,318.73	419,405.27	632,867.20	32.1526779	-104.0375743	897.94	10.00	10.00	0.00
Harkey SS													
9,100.00	67.12	141.00	8,822.88	-922.15	1,340.38	419,378.53	632,888.85	32.1526043	-104.0375046	924.72	10.00	10.00	0.00
9,150.00	72.12	141.00	8,840.29	-958.56	1,369.87	419,342.12	632,918.34	32.1525039	-104.0374096	961.19	10.00	10.00	0.00
9,178.80	75.00	141.00	8,848.43	-980.03	1,387.25	419,320.65	632,935.72	32.1524448	-104.0373536	982.69	10.00	10.00	0.00
9,200.00	76.06	141.00	8,853.73	-995.98	1,400.17	419,304.70	632,948.64	32.1524009	-104.0373120	998.67	5.00	5.00	0.00
9,300.00	81.06	141.00	8,873.56	-1,072.13	1,461.83	419,228.55	633,010.30	32.1521911	-104.0371135	1,074.93	5.00	5.00	0.00
9,400.00	86.06	141.00	8,884.77	-1,149.33	1,524.35	419,151.35	633,072.82	32.1519784	-104.0369121	1,152.25	5.00	5.00	0.00
9,445.60	88.34	141.00	8,887.00	-1,184.72	1,553.01	419,115.96	633,101.48	32.1518809	-104.0368198	1,187.70	5.00	5.00	0.00
Harkey LZ													
9,478.80	90.00	141.00	8,887.48	-1,210.52	1,573.90	419,090.16	633,122.37	32.1518098	-104.0367526	1,213.54	5.00	5.00	0.00
9,500.00	90.00	141.00	8,887.48	-1,226.99	1,587.24	419,073.69	633,135.71	32.1517644	-104.0367096	1,230.04	0.00	0.00	0.00
9,600.00	90.00	141.00	8,887.48	-1,304.71	1,650.17	418,995.97	633,198.64	32.1515503	-104.0365070	1,307.87	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.00	90.00	141.00	8,887.48	-1,382.42	1,713.10	418,918.26	633,261.57	32.1513362	-104.0363043	1,385.71	0.00	0.00	0.00
9,800.00	90.00	141.00	8,887.48	-1,460.14	1,776.04	418,840.54	633,324.51	32.1511221	-104.0361016	1,463.54	0.00	0.00	0.00
9,900.00	90.00	141.00	8,887.48	-1,537.85	1,838.97	418,762.83	633,387.44	32.1509080	-104.0358990	1,541.38	0.00	0.00	0.00
10,000.00	90.00	141.00	8,887.48	-1,615.57	1,901.90	418,685.11	633,450.37	32.1506939	-104.0356963	1,619.21	0.00	0.00	0.00
10,100.00	90.00	141.00	8,887.48	-1,693.28	1,964.83	418,607.40	633,513.30	32.1504798	-104.0354937	1,697.05	0.00	0.00	0.00
10,133.80	90.00	141.00	8,887.48	-1,719.55	1,986.10	418,581.13	633,534.57	32.1504074	-104.0354252	1,723.36	0.00	0.00	0.00
10,200.00	90.00	142.32	8,887.48	-1,771.47	2,027.17	418,529.21	633,575.64	32.1502644	-104.0352930	1,775.36	2.00	0.00	2.00
10,300.00	90.00	144.32	8,887.48	-1,851.67	2,086.89	418,449.01	633,635.36	32.1500434	-104.0351007	1,855.67	2.00	0.00	2.00
10,400.00	90.00	146.32	8,887.48	-1,933.90	2,143.78	418,366.78	633,692.25	32.1498170	-104.0349176	1,938.02	2.00	0.00	2.00
10,500.00	90.00	148.32	8,887.48	-2,018.07	2,197.77	418,282.61	633,746.24	32.1495852	-104.0347439	2,022.29	2.00	0.00	2.00
10,600.00	90.00	150.32	8,887.48	-2,104.08	2,248.78	418,196.60	633,797.25	32.1493484	-104.0345799	2,108.39	2.00	0.00	2.00
10,700.00	90.00	152.32	8,887.48	-2,191.81	2,296.77	418,108.87	633,845.24	32.1491068	-104.0344256	2,196.21	2.00	0.00	2.00
10,800.00	90.00	154.32	8,887.47	-2,281.16	2,341.66	418,019.52	633,890.13	32.1488609	-104.0342814	2,285.65	2.00	0.00	2.00
10,900.00	90.00	156.32	8,887.47	-2,372.02	2,383.41	417,928.66	633,931.88	32.1486108	-104.0341473	2,376.59	2.00	0.00	2.00
11,000.00	90.00	158.32	8,887.47	-2,464.29	2,421.96	417,836.39	633,970.43	32.1483569	-104.0340236	2,468.93	2.00	0.00	2.00
11,100.00	90.00	160.32	8,887.47	-2,557.84	2,457.26	417,742.84	634,005.73	32.1480994	-104.0339103	2,562.55	2.00	0.00	2.00
11,200.00	90.00	162.32	8,887.46	-2,652.57	2,489.28	417,648.11	634,037.75	32.1478388	-104.0338077	2,657.35	2.00	0.00	2.00
11,300.00	90.00	164.32	8,887.46	-2,748.36	2,517.98	417,552.32	634,066.45	32.1475752	-104.0337159	2,753.19	2.00	0.00	2.00
11,400.00	90.00	166.32	8,887.46	-2,845.09	2,543.31	417,455.59	634,091.78	32.1473091	-104.0336349	2,849.97	2.00	0.00	2.00
11,500.00	90.00	168.32	8,887.45	-2,942.65	2,565.25	417,358.03	634,113.72	32.1470408	-104.0335649	2,947.57	2.00	0.00	2.00
11,600.00	90.00	170.32	8,887.45	-3,040.92	2,583.78	417,259.76	634,132.25	32.1467705	-104.0335059	3,045.87	2.00	0.00	2.00
11,700.00	90.00	172.32	8,887.45	-3,139.77	2,598.86	417,160.91	634,147.33	32.1464987	-104.0334581	3,144.75	2.00	0.00	2.00
11,800.00	90.00	174.32	8,887.44	-3,239.08	2,610.49	417,061.60	634,158.96	32.1462256	-104.0334214	3,244.09	2.00	0.00	2.00
11,900.00	90.00	176.32	8,887.44	-3,338.75	2,618.64	416,961.94	634,167.11	32.1459516	-104.0333959	3,343.77	2.00	0.00	2.00
12,000.00	90.00	178.32	8,887.43	-3,438.63	2,623.31	416,862.05	634,171.78	32.1456769	-104.0333818	3,443.66	2.00	0.00	2.00
12,078.43	90.00	179.89	8,887.43	-3,517.05	2,624.53	416,783.63	634,173.00	32.1454614	-104.0333785	3,522.08	2.00	0.00	2.00
12,100.00	90.00	179.89	8,887.43	-3,538.62	2,624.57	416,762.06	634,173.04	32.1454021	-104.0333786	3,543.65	0.00	0.00	0.00
12,200.00	90.00	179.89	8,887.42	-3,638.62	2,624.76	416,662.06	634,173.23	32.1451272	-104.0333789	3,643.65	0.00	0.00	0.00
12,300.00	90.00	179.89	8,887.42	-3,738.62	2,624.94	416,562.06	634,173.41	32.1448523	-104.0333792	3,743.65	0.00	0.00	0.00
12,400.00	90.00	179.89	8,887.41	-3,838.62	2,625.13	416,462.06	634,173.60	32.1445774	-104.0333795	3,843.65	0.00	0.00	0.00
12,500.00	90.00	179.89	8,887.41	-3,938.62	2,625.32	416,362.06	634,173.79	32.1443025	-104.0333798	3,943.65	0.00	0.00	0.00
12,600.00	90.00	179.89	8,887.40	-4,038.62	2,625.51	416,262.06	634,173.98	32.1440276	-104.0333801	4,043.65	0.00	0.00	0.00
12,700.00	90.00	179.89	8,887.40	-4,138.62	2,625.69	416,162.06	634,174.16	32.1437527	-104.0333803	4,143.65	0.00	0.00	0.00
12,800.00	90.00	179.89	8,887.39	-4,238.62	2,625.88	416,062.06	634,174.35	32.1434778	-104.0333806	4,243.65	0.00	0.00	0.00
12,900.00	90.00	179.89	8,887.39	-4,338.62	2,626.07	415,962.06	634,174.54	32.1432030	-104.0333809	4,343.65	0.00	0.00	0.00
13,000.00	90.00	179.89	8,887.38	-4,438.62	2,626.26	415,862.06	634,174.73	32.1429281	-104.0333812	4,443.65	0.00	0.00	0.00
13,100.00	90.00	179.89	8,887.37	-4,538.62	2,626.44	415,762.06	634,174.91	32.1426532	-104.0333815	4,543.65	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.00	90.00	179.89	8,887.37	-4,638.62	2,626.63	415,662.06	634,175.10	32.1423783	-104.0333818	4,643.65	0.00	0.00	0.00
13,300.00	90.00	179.89	8,887.36	-4,738.62	2,626.82	415,562.06	634,175.29	32.1421034	-104.0333821	4,743.65	0.00	0.00	0.00
13,400.00	90.00	179.89	8,887.36	-4,838.62	2,627.01	415,462.06	634,175.48	32.1418285	-104.0333824	4,843.65	0.00	0.00	0.00
13,500.00	90.00	179.89	8,887.35	-4,938.62	2,627.19	415,362.06	634,175.66	32.1415536	-104.0333827	4,943.65	0.00	0.00	0.00
13,600.00	90.00	179.89	8,887.35	-5,038.62	2,627.38	415,262.06	634,175.85	32.1412787	-104.0333830	5,043.65	0.00	0.00	0.00
13,700.00	90.00	179.89	8,887.34	-5,138.62	2,627.57	415,162.06	634,176.04	32.1410038	-104.0333833	5,143.65	0.00	0.00	0.00
13,800.00	90.00	179.89	8,887.34	-5,238.62	2,627.76	415,062.06	634,176.23	32.1407289	-104.0333836	5,243.65	0.00	0.00	0.00
13,900.00	90.00	179.89	8,887.33	-5,338.62	2,627.94	414,962.06	634,176.41	32.1404540	-104.0333839	5,343.65	0.00	0.00	0.00
14,000.00	90.00	179.89	8,887.33	-5,438.62	2,628.13	414,862.06	634,176.60	32.1401791	-104.0333842	5,443.65	0.00	0.00	0.00
14,100.00	90.00	179.89	8,887.32	-5,538.62	2,628.32	414,762.06	634,176.79	32.1399043	-104.0333845	5,543.65	0.00	0.00	0.00
14,200.00	90.00	179.89	8,887.32	-5,638.62	2,628.51	414,662.06	634,176.98	32.1396294	-104.0333848	5,643.65	0.00	0.00	0.00
14,300.00	90.00	179.89	8,887.31	-5,738.62	2,628.69	414,562.07	634,177.16	32.1393545	-104.0333851	5,743.65	0.00	0.00	0.00
14,400.00	90.00	179.89	8,887.31	-5,838.61	2,628.88	414,462.07	634,177.35	32.1390796	-104.0333853	5,843.65	0.00	0.00	0.00
14,500.00	90.00	179.89	8,887.30	-5,938.61	2,629.07	414,362.07	634,177.54	32.1388047	-104.0333856	5,943.65	0.00	0.00	0.00
14,600.00	90.00	179.89	8,887.30	-6,038.61	2,629.26	414,262.07	634,177.73	32.1385298	-104.0333859	6,043.65	0.00	0.00	0.00
14,700.00	90.00	179.89	8,887.29	-6,138.61	2,629.44	414,162.07	634,177.91	32.1382549	-104.0333862	6,143.65	0.00	0.00	0.00
14,800.00	90.00	179.89	8,887.29	-6,238.61	2,629.63	414,062.07	634,178.10	32.1379800	-104.0333865	6,243.65	0.00	0.00	0.00
14,900.00	90.00	179.89	8,887.28	-6,338.61	2,629.82	413,962.07	634,178.29	32.1377051	-104.0333868	6,343.65	0.00	0.00	0.00
15,000.00	90.00	179.89	8,887.28	-6,438.61	2,630.01	413,862.07	634,178.48	32.1374302	-104.0333871	6,443.65	0.00	0.00	0.00
15,100.00	90.00	179.89	8,887.27	-6,538.61	2,630.19	413,762.07	634,178.66	32.1371553	-104.0333874	6,543.65	0.00	0.00	0.00
15,200.00	90.00	179.89	8,887.27	-6,638.61	2,630.38	413,662.07	634,178.85	32.1368804	-104.0333877	6,643.65	0.00	0.00	0.00
15,300.00	90.00	179.89	8,887.26	-6,738.61	2,630.57	413,562.07	634,179.04	32.1366056	-104.0333880	6,743.65	0.00	0.00	0.00
15,400.00	90.00	179.89	8,887.25	-6,838.61	2,630.76	413,462.07	634,179.23	32.1363307	-104.0333883	6,843.65	0.00	0.00	0.00
15,500.00	90.00	179.89	8,887.25	-6,938.61	2,630.94	413,362.07	634,179.41	32.1360558	-104.0333886	6,943.65	0.00	0.00	0.00
15,600.00	90.00	179.89	8,887.24	-7,038.61	2,631.13	413,262.07	634,179.60	32.1357809	-104.0333889	7,043.65	0.00	0.00	0.00
15,700.00	90.00	179.89	8,887.24	-7,138.61	2,631.32	413,162.07	634,179.79	32.1355060	-104.0333892	7,143.65	0.00	0.00	0.00
15,800.00	90.00	179.89	8,887.23	-7,238.61	2,631.51	413,062.07	634,179.98	32.1352311	-104.0333895	7,243.65	0.00	0.00	0.00
15,900.00	90.00	179.89	8,887.23	-7,338.61	2,631.69	412,962.07	634,180.16	32.1349562	-104.0333898	7,343.65	0.00	0.00	0.00
16,000.00	90.00	179.89	8,887.22	-7,438.61	2,631.88	412,862.07	634,180.35	32.1346813	-104.0333900	7,443.65	0.00	0.00	0.00
16,100.00	90.00	179.89	8,887.22	-7,538.61	2,632.07	412,762.07	634,180.54	32.1344064	-104.0333903	7,543.65	0.00	0.00	0.00
16,200.00	90.00	179.89	8,887.21	-7,638.61	2,632.26	412,662.07	634,180.73	32.1341315	-104.0333906	7,643.65	0.00	0.00	0.00
16,300.00	90.00	179.89	8,887.21	-7,738.61	2,632.44	412,562.07	634,180.91	32.1338566	-104.0333909	7,743.65	0.00	0.00	0.00
16,400.00	90.00	179.89	8,887.20	-7,838.61	2,632.63	412,462.07	634,181.10	32.1335817	-104.0333912	7,843.65	0.00	0.00	0.00
16,500.00	90.00	179.89	8,887.20	-7,938.61	2,632.82	412,362.07	634,181.29	32.1333069	-104.0333915	7,943.65	0.00	0.00	0.00
16,600.00	90.00	179.89	8,887.19	-8,038.61	2,633.01	412,262.07	634,181.48	32.1330320	-104.0333918	8,043.65	0.00	0.00	0.00
16,700.00	90.00	179.89	8,887.19	-8,138.61	2,633.19	412,162.07	634,181.66	32.1327571	-104.0333921	8,143.65	0.00	0.00	0.00
16,800.00	90.00	179.89	8,887.18	-8,238.61	2,633.38	412,062.07	634,181.85	32.1324822	-104.0333924	8,243.65	0.00	0.00	0.00
16,900.00	90.00	179.89	8,887.18	-8,338.61	2,633.57	411,962.07	634,182.04	32.1322073	-104.0333927	8,343.65	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,000.00	90.00	179.89	8,887.17	-8,438.61	2,633.76	411,862.07	634,182.23	32.1319324	-104.0333930	8,443.65	0.00	0.00	0.00
17,100.00	90.00	179.89	8,887.17	-8,538.61	2,633.94	411,762.07	634,182.41	32.1316575	-104.0333933	8,543.65	0.00	0.00	0.00
17,200.00	90.00	179.89	8,887.16	-8,638.61	2,634.13	411,662.07	634,182.60	32.1313826	-104.0333936	8,643.65	0.00	0.00	0.00
17,300.00	90.00	179.89	8,887.16	-8,738.61	2,634.32	411,562.07	634,182.79	32.1311077	-104.0333939	8,743.65	0.00	0.00	0.00
17,400.00	90.00	179.89	8,887.15	-8,838.61	2,634.51	411,462.07	634,182.98	32.1308328	-104.0333942	8,843.65	0.00	0.00	0.00
17,500.00	90.00	179.89	8,887.14	-8,938.61	2,634.69	411,362.07	634,183.16	32.1305579	-104.0333945	8,943.65	0.00	0.00	0.00
17,600.00	90.00	179.89	8,887.14	-9,038.61	2,634.88	411,262.07	634,183.35	32.1302830	-104.0333947	9,043.65	0.00	0.00	0.00
17,700.00	90.00	179.89	8,887.13	-9,138.61	2,635.07	411,162.07	634,183.54	32.1300082	-104.0333950	9,143.65	0.00	0.00	0.00
17,800.00	90.00	179.89	8,887.13	-9,238.61	2,635.26	411,062.07	634,183.73	32.1297333	-104.0333953	9,243.65	0.00	0.00	0.00
17,900.00	90.00	179.89	8,887.12	-9,338.61	2,635.44	410,962.07	634,183.91	32.1294584	-104.0333956	9,343.65	0.00	0.00	0.00
18,000.00	90.00	179.89	8,887.12	-9,438.61	2,635.63	410,862.07	634,184.10	32.1291835	-104.0333959	9,443.65	0.00	0.00	0.00
18,100.00	90.00	179.89	8,887.11	-9,538.61	2,635.82	410,762.07	634,184.29	32.1289086	-104.0333962	9,543.65	0.00	0.00	0.00
18,200.00	90.00	179.89	8,887.11	-9,638.61	2,636.01	410,662.07	634,184.48	32.1286337	-104.0333965	9,643.65	0.00	0.00	0.00
18,300.00	90.00	179.89	8,887.10	-9,738.61	2,636.19	410,562.07	634,184.66	32.1283588	-104.0333968	9,743.65	0.00	0.00	0.00
18,400.00	90.00	179.89	8,887.10	-9,838.61	2,636.38	410,462.07	634,184.85	32.1280839	-104.0333971	9,843.65	0.00	0.00	0.00
18,500.00	90.00	179.89	8,887.09	-9,938.61	2,636.57	410,362.07	634,185.04	32.1278090	-104.0333974	9,943.65	0.00	0.00	0.00
18,600.00	90.00	179.89	8,887.09	-10,038.61	2,636.76	410,262.07	634,185.23	32.1275341	-104.0333977	10,043.65	0.00	0.00	0.00
18,700.00	90.00	179.89	8,887.08	-10,138.61	2,636.94	410,162.07	634,185.41	32.1272592	-104.0333980	10,143.65	0.00	0.00	0.00
18,800.00	90.00	179.89	8,887.08	-10,238.61	2,637.13	410,062.07	634,185.60	32.1269843	-104.0333983	10,243.65	0.00	0.00	0.00
18,900.00	90.00	179.89	8,887.07	-10,338.61	2,637.32	409,962.07	634,185.79	32.1267094	-104.0333986	10,343.65	0.00	0.00	0.00
19,000.00	90.00	179.89	8,887.07	-10,438.61	2,637.51	409,862.07	634,185.98	32.1264346	-104.0333989	10,443.65	0.00	0.00	0.00
19,100.00	90.00	179.89	8,887.06	-10,538.61	2,637.69	409,762.07	634,186.16	32.1261597	-104.0333992	10,543.65	0.00	0.00	0.00
19,200.00	90.00	179.89	8,887.06	-10,638.61	2,637.88	409,662.07	634,186.35	32.1258848	-104.0333994	10,643.65	0.00	0.00	0.00
19,300.00	90.00	179.89	8,887.05	-10,738.61	2,638.07	409,562.07	634,186.54	32.1256099	-104.0333997	10,743.65	0.00	0.00	0.00
19,400.00	90.00	179.89	8,887.05	-10,838.61	2,638.26	409,462.07	634,186.73	32.1253350	-104.0334000	10,843.65	0.00	0.00	0.00
19,500.00	90.00	179.89	8,887.04	-10,938.61	2,638.44	409,362.07	634,186.91	32.1250601	-104.0334003	10,943.65	0.00	0.00	0.00
19,600.00	90.00	179.89	8,887.04	-11,038.61	2,638.63	409,262.07	634,187.10	32.1247852	-104.0334006	11,043.65	0.00	0.00	0.00
19,700.00	90.00	179.89	8,887.03	-11,138.61	2,638.82	409,162.07	634,187.29	32.1245103	-104.0334009	11,143.65	0.00	0.00	0.00
19,800.00	90.00	179.89	8,887.02	-11,238.61	2,639.01	409,062.07	634,187.48	32.1242354	-104.0334012	11,243.65	0.00	0.00	0.00
19,900.00	90.00	179.89	8,887.02	-11,338.61	2,639.19	408,962.07	634,187.66	32.1239605	-104.0334015	11,343.65	0.00	0.00	0.00
20,000.00	90.00	179.89	8,887.01	-11,438.61	2,639.38	408,862.08	634,187.85	32.1236856	-104.0334018	11,443.65	0.00	0.00	0.00
20,100.00	90.00	179.89	8,887.01	-11,538.61	2,639.57	408,762.08	634,188.04	32.1234107	-104.0334021	11,543.65	0.00	0.00	0.00
20,200.00	90.00	179.89	8,887.00	-11,638.60	2,639.76	408,662.08	634,188.23	32.1231358	-104.0334024	11,643.65	0.00	0.00	0.00
20,266.44	90.00	179.89	8,887.00	-11,705.04	2,639.88	408,595.64	634,188.35	32.1229532	-104.0334026	11,710.09	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 8H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	.Total Directional Production DB

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (Riverbend 12-13 F	0.00	0.00	0.00	-11,705.04	2,639.88	408,595.64	634,188.35	32.1229532	-104.0334026
- plan misses target center by 8887.00usft at 20266.44usft MD (8887.00 TVD, -11705.04 N, 2639.88 E)									
- Point									
FTP (Riverbend 12-13 F	0.00	0.00	0.00	-1,289.34	2,620.46	419,011.34	634,168.93	32.1515852	-104.0333716
- plan misses target center by 2920.48usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
407.00	407.00	Rustler			
1,959.99	1,952.00	Top Salt			
2,703.80	2,679.00	Base Salt/Lamar			
2,833.73	2,806.00	Top Delaware Sands/Bell Canyon			
3,665.53	3,619.00	Cherry Canyon			
4,891.23	4,817.00	Brushy Canyon			
5,862.17	5,766.00	Lower Brushy Canyon			
6,522.08	6,411.00	Bone Spring Lime			
7,493.06	7,361.00	1st Bone Spring Sand			
8,181.80	8,048.00	2nd Bone Spring Sand			
8,683.06	8,541.00	3rd Bone Spring Carb			
9,062.10	8,807.00	Harkey SS			
9,445.60	8,887.00	Harkey LZ			

Checked By: _____ Approved By: _____ Date: _____

COMPANY	Coterra Energy
FIELD	Eddy County, NM (NAD 83)
SITE	Riverbend 12-13 Federal Com
WELL	Riverbend 12-13 Federal Com 8H
WELLPATH	OH
DESIGN	Plan 1
DEPTHUNT	(usft)

WELL INFO	
MAP DATUM	North American Datum 1983
MAP SYSTEM	US State Plane 1983
MAP ZONE	New Mexico Eastern Zone
WELL LAT	32.155149
WELL LON	-104.041828
WELL EW MAI	631548.47
WELL NS MAP	420300.68
CONVERGENC	0.16
MAGMODEL	HDGM2025
DECLINATION	6.42
NORTH REF	Grid
GROUND ELE\	2934
KB ELEVN	2957
VS AZI	179.89

SURVEY PROGRAM

1 0.00 - 20266.44 PLAN 1 : MWD+IFR1+MS

SURVEY LIST

Measured De	Inclination	Azimuth	Course Length	True Vertical I	SubSea TVD	Local N/-S
MD	INC	AZI	CL	TVD	SSTVD	NS
0.00	0.00	0.00	0.00	0.00	2957.00	0.00
100.00	0.00	0.00	100.00	100.00	2857.00	0.00
200.00	0.00	0.00	100.00	200.00	2757.00	0.00
300.00	0.00	0.00	100.00	300.00	2657.00	0.00
400.00	0.00	0.00	100.00	400.00	2557.00	0.00
500.00	0.00	0.00	100.00	500.00	2457.00	0.00
600.00	0.00	0.00	100.00	600.00	2357.00	0.00
700.00	0.00	0.00	100.00	700.00	2257.00	0.00
800.00	0.00	0.00	100.00	800.00	2157.00	0.00
900.00	0.00	0.00	100.00	900.00	2057.00	0.00
1000.00	0.00	0.00	100.00	1000.00	1957.00	0.00
1100.00	0.00	0.00	100.00	1100.00	1857.00	0.00
1200.00	0.00	0.00	100.00	1200.00	1757.00	0.00
1300.00	2.00	120.00	100.00	1299.98	1657.02	-0.87

1400.00	4.00	120.00	100.00	1399.84	1557.16	-3.49
1500.00	6.00	120.00	100.00	1499.45	1457.55	-7.85
1600.00	8.00	120.00	100.00	1598.70	1358.30	-13.94
1700.00	10.00	120.00	100.00	1697.47	1259.54	-21.76
1800.00	12.00	120.00	100.00	1795.62	1161.38	-31.30
1810.29	12.20	120.14	10.29	1805.68	1151.32	-32.38
1900.00	12.20	120.14	89.71	1893.37	1063.63	-41.90
2000.00	12.20	120.14	100.00	1991.11	965.89	-52.52
2100.00	12.20	120.14	100.00	2088.85	868.15	-63.13
2200.00	12.20	120.14	100.00	2186.59	770.41	-73.74
2300.00	12.20	120.14	100.00	2284.33	672.67	-84.35
2400.00	12.20	120.14	100.00	2382.07	574.93	-94.97
2500.00	12.20	120.14	100.00	2479.81	477.19	-105.58
2600.00	12.20	120.14	100.00	2577.55	379.45	-116.19
2700.00	12.20	120.14	100.00	2675.29	281.71	-126.81
2800.00	12.20	120.14	100.00	2773.03	183.97	-137.42
2900.00	12.20	120.14	100.00	2870.77	86.23	-148.03
3000.00	12.20	120.14	100.00	2968.51	-11.51	-158.64
3100.00	12.20	120.14	100.00	3066.25	-109.25	-169.26
3200.00	12.20	120.14	100.00	3163.99	-206.99	-179.87
3300.00	12.20	120.14	100.00	3261.73	-304.73	-190.48
3400.00	12.20	120.14	100.00	3359.47	-402.47	-201.09
3500.00	12.20	120.14	100.00	3457.21	-500.21	-211.71
3600.00	12.20	120.14	100.00	3554.95	-597.95	-222.32
3700.00	12.20	120.14	100.00	3652.69	-695.69	-232.93
3800.00	12.20	120.14	100.00	3750.43	-793.43	-243.55
3900.00	12.20	120.14	100.00	3848.17	-891.17	-254.16
4000.00	12.20	120.14	100.00	3945.91	-988.91	-264.77
4100.00	12.20	120.14	100.00	4043.65	-1086.65	-275.38
4200.00	12.20	120.14	100.00	4141.39	-1184.39	-286.00
4300.00	12.20	120.14	100.00	4239.13	-1282.13	-296.61
4400.00	12.20	120.14	100.00	4336.87	-1379.87	-307.22
4500.00	12.20	120.14	100.00	4434.61	-1477.61	-317.84
4600.00	12.20	120.14	100.00	4532.35	-1575.35	-328.45
4700.00	12.20	120.14	100.00	4630.09	-1673.09	-339.06
4800.00	12.20	120.14	100.00	4727.83	-1770.83	-349.67
4900.00	12.20	120.14	100.00	4825.57	-1868.57	-360.29
5000.00	12.20	120.14	100.00	4923.31	-1966.31	-370.90
5100.00	12.20	120.14	100.00	5021.05	-2064.05	-381.51
5200.00	12.20	120.14	100.00	5118.79	-2161.79	-392.12
5300.00	12.20	120.14	100.00	5216.53	-2259.53	-402.74
5400.00	12.20	120.14	100.00	5314.27	-2357.27	-413.35
5500.00	12.20	120.14	100.00	5412.02	-2455.02	-423.96
5600.00	12.20	120.14	100.00	5509.76	-2552.76	-434.58

5700.00	12.20	120.14	100.00	5607.50	-2650.50	-445.19
5800.00	12.20	120.14	100.00	5705.24	-2748.24	-455.80
5900.00	12.20	120.14	100.00	5802.98	-2845.98	-466.41
6000.00	12.20	120.14	100.00	5900.72	-2943.72	-477.03
6100.00	12.20	120.14	100.00	5998.46	-3041.46	-487.64
6200.00	12.20	120.14	100.00	6096.20	-3139.20	-498.25
6300.00	12.20	120.14	100.00	6193.94	-3236.94	-508.87
6400.00	12.20	120.14	100.00	6291.68	-3334.68	-519.48
6500.00	12.20	120.14	100.00	6389.42	-3432.42	-530.09
6600.00	12.20	120.14	100.00	6487.16	-3530.16	-540.70
6700.00	12.20	120.14	100.00	6584.90	-3627.90	-551.32
6800.00	12.20	120.14	100.00	6682.64	-3725.64	-561.93
6900.00	12.20	120.14	100.00	6780.38	-3823.38	-572.54
7000.00	12.20	120.14	100.00	6878.12	-3921.12	-583.15
7100.00	12.20	120.14	100.00	6975.86	-4018.86	-593.77
7200.00	12.20	120.14	100.00	7073.60	-4116.60	-604.38
7300.00	12.20	120.14	100.00	7171.34	-4214.34	-614.99
7323.61	12.20	120.14	23.61	7194.42	-4237.42	-617.50
7400.00	10.68	120.14	76.39	7269.29	-4312.29	-625.10
7500.00	8.68	120.14	100.00	7367.86	-4410.86	-633.54
7600.00	6.68	120.14	100.00	7466.96	-4509.96	-640.25
7700.00	4.68	120.14	100.00	7566.46	-4609.46	-645.21
7800.00	2.68	120.14	100.00	7666.25	-4709.25	-648.43
7900.00	0.68	120.14	100.00	7766.20	-4809.20	-649.90
7933.80	0.00	0.00	33.80	7800.00	-4843.00	-650.00
8000.00	0.00	0.00	66.20	7866.20	-4909.20	-650.00
8100.00	0.00	0.00	100.00	7966.20	-5009.20	-650.00
8200.00	0.00	0.00	100.00	8066.20	-5109.20	-650.00
8300.00	0.00	0.00	100.00	8166.20	-5209.20	-650.00
8400.00	0.00	0.00	100.00	8266.20	-5309.20	-650.00
8428.80	0.00	0.00	28.80	8295.00	-5338.00	-650.00
8450.00	2.12	141.00	21.20	8316.20	-5359.20	-650.31
8500.00	7.12	141.00	50.00	8366.02	-5409.02	-653.43
8550.00	12.12	141.00	50.00	8415.30	-5458.30	-659.93
8600.00	17.12	141.00	50.00	8463.67	-5506.67	-669.73
8650.00	22.12	141.00	50.00	8510.75	-5553.75	-682.77
8700.00	27.12	141.00	50.00	8556.19	-5599.19	-698.96
8750.00	32.12	141.00	50.00	8599.64	-5642.64	-718.16
8800.00	37.12	141.00	50.00	8640.77	-5683.77	-740.23
8850.00	42.12	141.00	50.00	8679.28	-5722.28	-765.00
8900.00	47.12	141.00	50.00	8714.85	-5757.85	-792.28
8950.00	52.12	141.00	50.00	8747.24	-5790.24	-821.87
9000.00	57.12	141.00	50.00	8776.18	-5819.18	-853.54
9050.00	62.12	141.00	50.00	8801.46	-5844.46	-887.05

9100.00	67.12	141.00	50.00	8822.88	-5865.88	-922.15
9150.00	72.12	141.00	50.00	8840.29	-5883.29	-958.56
9178.80	75.00	141.00	28.80	8848.44	-5891.44	-980.03
9200.00	76.06	141.00	21.20	8853.73	-5896.73	-995.98
9300.00	81.06	141.00	100.00	8873.56	-5916.56	-1072.13
9400.00	86.06	141.00	100.00	8884.77	-5927.77	-1149.33
9478.80	90.00	141.00	78.80	8887.48	-5930.48	-1210.52
9500.00	90.00	141.00	21.20	8887.48	-5930.48	-1226.99
9600.00	90.00	141.00	100.00	8887.48	-5930.48	-1304.71
9700.00	90.00	141.00	100.00	8887.48	-5930.48	-1382.42
9800.00	90.00	141.00	100.00	8887.48	-5930.48	-1460.14
9900.00	90.00	141.00	100.00	8887.48	-5930.48	-1537.85
10000.00	90.00	141.00	100.00	8887.48	-5930.48	-1615.57
10100.00	90.00	141.00	100.00	8887.48	-5930.48	-1693.28
10133.80	90.00	141.00	33.80	8887.48	-5930.48	-1719.55
10200.00	90.00	142.32	66.20	8887.48	-5930.48	-1771.47
10300.00	90.00	144.32	100.00	8887.48	-5930.48	-1851.67
10400.00	90.00	146.32	100.00	8887.48	-5930.48	-1933.91
10500.00	90.00	148.32	100.00	8887.48	-5930.48	-2018.07
10600.00	90.00	150.32	100.00	8887.48	-5930.48	-2104.08
10700.00	90.00	152.32	100.00	8887.48	-5930.48	-2191.81
10800.00	90.00	154.32	100.00	8887.47	-5930.47	-2281.16
10900.00	90.00	156.32	100.00	8887.47	-5930.47	-2372.02
11000.00	90.00	158.32	100.00	8887.47	-5930.47	-2464.29
11100.00	90.00	160.32	100.00	8887.47	-5930.47	-2557.84
11200.00	90.00	162.32	100.00	8887.47	-5930.47	-2652.57
11300.00	90.00	164.32	100.00	8887.46	-5930.46	-2748.36
11400.00	90.00	166.32	100.00	8887.46	-5930.46	-2845.09
11500.00	90.00	168.32	100.00	8887.45	-5930.45	-2942.65
11600.00	90.00	170.32	100.00	8887.45	-5930.45	-3040.92
11700.00	90.00	172.32	100.00	8887.45	-5930.45	-3139.77
11800.00	90.00	174.32	100.00	8887.44	-5930.44	-3239.08
11900.00	90.00	176.32	100.00	8887.44	-5930.44	-3338.75
12000.00	90.00	178.32	100.00	8887.43	-5930.43	-3438.63
12078.43	90.00	179.89	78.43	8887.43	-5930.43	-3517.05
12100.00	90.00	179.89	21.57	8887.43	-5930.43	-3538.62
12200.00	90.00	179.89	100.00	8887.42	-5930.42	-3638.62
12300.00	90.00	179.89	100.00	8887.42	-5930.42	-3738.62
12400.00	90.00	179.89	100.00	8887.41	-5930.41	-3838.62
12500.00	90.00	179.89	100.00	8887.41	-5930.41	-3938.62
12600.00	90.00	179.89	100.00	8887.40	-5930.40	-4038.62
12700.00	90.00	179.89	100.00	8887.40	-5930.40	-4138.62
12800.00	90.00	179.89	100.00	8887.39	-5930.39	-4238.62
12900.00	90.00	179.89	100.00	8887.39	-5930.39	-4338.62

13000.00	90.00	179.89	100.00	8887.38	-5930.38	-4438.62
13100.00	90.00	179.89	100.00	8887.38	-5930.38	-4538.62
13200.00	90.00	179.89	100.00	8887.37	-5930.37	-4638.62
13300.00	90.00	179.89	100.00	8887.36	-5930.36	-4738.62
13400.00	90.00	179.89	100.00	8887.36	-5930.36	-4838.62
13500.00	90.00	179.89	100.00	8887.35	-5930.35	-4938.62
13600.00	90.00	179.89	100.00	8887.35	-5930.35	-5038.62
13700.00	90.00	179.89	100.00	8887.34	-5930.34	-5138.62
13800.00	90.00	179.89	100.00	8887.34	-5930.34	-5238.62
13900.00	90.00	179.89	100.00	8887.33	-5930.33	-5338.62
14000.00	90.00	179.89	100.00	8887.33	-5930.33	-5438.62
14100.00	90.00	179.89	100.00	8887.32	-5930.32	-5538.62
14200.00	90.00	179.89	100.00	8887.32	-5930.32	-5638.62
14300.00	90.00	179.89	100.00	8887.31	-5930.31	-5738.62
14400.00	90.00	179.89	100.00	8887.31	-5930.31	-5838.62
14500.00	90.00	179.89	100.00	8887.30	-5930.30	-5938.62
14600.00	90.00	179.89	100.00	8887.30	-5930.30	-6038.61
14700.00	90.00	179.89	100.00	8887.29	-5930.29	-6138.61
14800.00	90.00	179.89	100.00	8887.29	-5930.29	-6238.61
14900.00	90.00	179.89	100.00	8887.28	-5930.28	-6338.61
15000.00	90.00	179.89	100.00	8887.28	-5930.28	-6438.61
15100.00	90.00	179.89	100.00	8887.27	-5930.27	-6538.61
15200.00	90.00	179.89	100.00	8887.27	-5930.27	-6638.61
15300.00	90.00	179.89	100.00	8887.26	-5930.26	-6738.61
15400.00	90.00	179.89	100.00	8887.25	-5930.25	-6838.61
15500.00	90.00	179.89	100.00	8887.25	-5930.25	-6938.61
15600.00	90.00	179.89	100.00	8887.24	-5930.24	-7038.61
15700.00	90.00	179.89	100.00	8887.24	-5930.24	-7138.61
15800.00	90.00	179.89	100.00	8887.23	-5930.23	-7238.61
15900.00	90.00	179.89	100.00	8887.23	-5930.23	-7338.61
16000.00	90.00	179.89	100.00	8887.22	-5930.22	-7438.61
16100.00	90.00	179.89	100.00	8887.22	-5930.22	-7538.61
16200.00	90.00	179.89	100.00	8887.21	-5930.21	-7638.61
16300.00	90.00	179.89	100.00	8887.21	-5930.21	-7738.61
16400.00	90.00	179.89	100.00	8887.20	-5930.20	-7838.61
16500.00	90.00	179.89	100.00	8887.20	-5930.20	-7938.61
16600.00	90.00	179.89	100.00	8887.19	-5930.19	-8038.61
16700.00	90.00	179.89	100.00	8887.19	-5930.19	-8138.61
16800.00	90.00	179.89	100.00	8887.18	-5930.18	-8238.61
16900.00	90.00	179.89	100.00	8887.18	-5930.18	-8338.61
17000.00	90.00	179.89	100.00	8887.17	-5930.17	-8438.61
17100.00	90.00	179.89	100.00	8887.17	-5930.17	-8538.61
17200.00	90.00	179.89	100.00	8887.16	-5930.16	-8638.61
17300.00	90.00	179.89	100.00	8887.16	-5930.16	-8738.61

17400.00	90.00	179.89	100.00	8887.15	-5930.15	-8838.61
17500.00	90.00	179.89	100.00	8887.15	-5930.15	-8938.61
17600.00	90.00	179.89	100.00	8887.14	-5930.14	-9038.61
17700.00	90.00	179.89	100.00	8887.13	-5930.13	-9138.61
17800.00	90.00	179.89	100.00	8887.13	-5930.13	-9238.61
17900.00	90.00	179.89	100.00	8887.12	-5930.12	-9338.61
18000.00	90.00	179.89	100.00	8887.12	-5930.12	-9438.61
18100.00	90.00	179.89	100.00	8887.11	-5930.11	-9538.61
18200.00	90.00	179.89	100.00	8887.11	-5930.11	-9638.61
18300.00	90.00	179.89	100.00	8887.10	-5930.10	-9738.61
18400.00	90.00	179.89	100.00	8887.10	-5930.10	-9838.61
18500.00	90.00	179.89	100.00	8887.09	-5930.09	-9938.61
18600.00	90.00	179.89	100.00	8887.09	-5930.09	-10038.61
18700.00	90.00	179.89	100.00	8887.08	-5930.08	-10138.61
18800.00	90.00	179.89	100.00	8887.08	-5930.08	-10238.61
18900.00	90.00	179.89	100.00	8887.07	-5930.07	-10338.61
19000.00	90.00	179.89	100.00	8887.07	-5930.07	-10438.61
19100.00	90.00	179.89	100.00	8887.06	-5930.06	-10538.61
19200.00	90.00	179.89	100.00	8887.06	-5930.06	-10638.61
19300.00	90.00	179.89	100.00	8887.05	-5930.05	-10738.61
19400.00	90.00	179.89	100.00	8887.05	-5930.05	-10838.61
19500.00	90.00	179.89	100.00	8887.04	-5930.04	-10938.61
19600.00	90.00	179.89	100.00	8887.04	-5930.04	-11038.61
19700.00	90.00	179.89	100.00	8887.03	-5930.03	-11138.61
19800.00	90.00	179.89	100.00	8887.02	-5930.02	-11238.61
19900.00	90.00	179.89	100.00	8887.02	-5930.02	-11338.61
20000.00	90.00	179.89	100.00	8887.01	-5930.01	-11438.61
20100.00	90.00	179.89	100.00	8887.01	-5930.01	-11538.61
20200.00	90.00	179.89	100.00	8887.00	-5930.00	-11638.61
20266.44	90.00	179.89	66.44	8887.00	-5930.00	-11705.04

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severi DLS	Build Rate BLD
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
0.00	631548.47	420300.68	32.155149	-104.041828	0.00	0.00
1.51	631549.98	420299.81	32.155147	-104.041823	2.00	2.00

6.04	631554.51	420297.19	32.155140	-104.041808	2.00	2.00
13.59	631562.06	420292.83	32.155128	-104.041784	2.00	2.00
24.15	631572.62	420286.74	32.155111	-104.041750	2.00	2.00
37.69	631586.16	420278.92	32.155089	-104.041706	2.00	2.00
54.22	631602.69	420269.38	32.155063	-104.041653	2.00	2.00
56.08	631604.55	420268.30	32.155060	-104.041647	2.00	1.98
72.48	631620.95	420258.78	32.155033	-104.041594	0.00	0.00
90.77	631639.24	420248.16	32.155004	-104.041535	0.00	0.00
109.05	631657.52	420237.55	32.154975	-104.041476	0.00	0.00
127.33	631675.80	420226.94	32.154946	-104.041417	0.00	0.00
145.61	631694.08	420216.33	32.154916	-104.041358	0.00	0.00
163.89	631712.36	420205.71	32.154887	-104.041299	0.00	0.00
182.17	631730.64	420195.10	32.154858	-104.041240	0.00	0.00
200.46	631748.93	420184.49	32.154828	-104.041181	0.00	0.00
218.74	631767.21	420173.88	32.154799	-104.041122	0.00	0.00
237.02	631785.49	420163.26	32.154770	-104.041063	0.00	0.00
255.30	631803.77	420152.65	32.154740	-104.041004	0.00	0.00
273.58	631822.05	420142.04	32.154711	-104.040945	0.00	0.00
291.86	631840.33	420131.42	32.154682	-104.040886	0.00	0.00
310.15	631858.62	420120.81	32.154652	-104.040827	0.00	0.00
328.43	631876.90	420110.20	32.154623	-104.040768	0.00	0.00
346.71	631895.18	420099.59	32.154594	-104.040709	0.00	0.00
364.99	631913.46	420088.97	32.154565	-104.040650	0.00	0.00
383.27	631931.74	420078.36	32.154535	-104.040591	0.00	0.00
401.55	631950.02	420067.75	32.154506	-104.040532	0.00	0.00
419.84	631968.31	420057.14	32.154477	-104.040473	0.00	0.00
438.12	631986.59	420046.52	32.154447	-104.040414	0.00	0.00
456.40	632004.87	420035.91	32.154418	-104.040355	0.00	0.00
474.68	632023.15	420025.30	32.154389	-104.040296	0.00	0.00
492.96	632041.43	420014.68	32.154359	-104.040237	0.00	0.00
511.24	632059.71	420004.07	32.154330	-104.040178	0.00	0.00
529.53	632078.00	419993.46	32.154301	-104.040119	0.00	0.00
547.81	632096.28	419982.85	32.154271	-104.040060	0.00	0.00
566.09	632114.56	419972.23	32.154242	-104.040001	0.00	0.00
584.37	632132.84	419961.62	32.154213	-104.039942	0.00	0.00
602.65	632151.12	419951.01	32.154183	-104.039883	0.00	0.00
620.93	632169.40	419940.39	32.154154	-104.039824	0.00	0.00
639.22	632187.69	419929.78	32.154125	-104.039765	0.00	0.00
657.50	632205.97	419919.17	32.154096	-104.039706	0.00	0.00
675.78	632224.25	419908.56	32.154066	-104.039647	0.00	0.00
694.06	632242.53	419897.94	32.154037	-104.039588	0.00	0.00
712.34	632260.81	419887.33	32.154008	-104.039529	0.00	0.00
730.62	632279.09	419876.72	32.153978	-104.039470	0.00	0.00
748.91	632297.38	419866.11	32.153949	-104.039411	0.00	0.00

767.19	632315.66	419855.49	32.153920	-104.039352	0.00	0.00
785.47	632333.94	419844.88	32.153890	-104.039294	0.00	0.00
803.75	632352.22	419834.27	32.153861	-104.039235	0.00	0.00
822.03	632370.50	419823.65	32.153832	-104.039176	0.00	0.00
840.32	632388.79	419813.04	32.153802	-104.039117	0.00	0.00
858.60	632407.07	419802.43	32.153773	-104.039058	0.00	0.00
876.88	632425.35	419791.82	32.153744	-104.038999	0.00	0.00
895.16	632443.63	419781.20	32.153715	-104.038940	0.00	0.00
913.44	632461.91	419770.59	32.153685	-104.038881	0.00	0.00
931.72	632480.19	419759.98	32.153656	-104.038822	0.00	0.00
950.01	632498.48	419749.36	32.153627	-104.038763	0.00	0.00
968.29	632516.76	419738.75	32.153597	-104.038704	0.00	0.00
986.57	632535.04	419728.14	32.153568	-104.038645	0.00	0.00
1004.85	632553.32	419717.53	32.153539	-104.038586	0.00	0.00
1023.13	632571.60	419706.91	32.153509	-104.038527	0.00	0.00
1041.41	632589.88	419696.30	32.153480	-104.038468	0.00	0.00
1059.70	632608.17	419685.69	32.153451	-104.038409	0.00	0.00
1064.01	632612.48	419683.18	32.153444	-104.038395	0.00	0.00
1077.12	632625.59	419675.58	32.153423	-104.038353	2.00	-2.00
1091.65	632640.12	419667.14	32.153399	-104.038306	2.00	-2.00
1103.20	632651.67	419660.43	32.153381	-104.038268	2.00	-2.00
1111.75	632660.22	419655.47	32.153367	-104.038241	2.00	-2.00
1117.30	632665.77	419652.25	32.153358	-104.038223	2.00	-2.00
1119.83	632668.30	419650.78	32.153354	-104.038215	2.00	-2.00
1120.00	632668.47	419650.68	32.153354	-104.038214	2.00	-2.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.00	632668.47	419650.68	32.153354	-104.038214	0.00	0.00
1120.25	632668.72	419650.38	32.153353	-104.038213	10.00	10.00
1122.78	632671.25	419647.25	32.153345	-104.038205	10.00	10.00
1128.04	632676.51	419640.76	32.153327	-104.038188	10.00	10.00
1135.98	632684.45	419630.95	32.153300	-104.038163	10.00	10.00
1146.54	632695.01	419617.91	32.153264	-104.038129	10.00	10.00
1159.64	632708.11	419601.72	32.153219	-104.038087	10.00	10.00
1175.19	632723.66	419582.52	32.153166	-104.038037	10.00	10.00
1193.06	632741.53	419560.46	32.153105	-104.037979	10.00	10.00
1213.12	632761.59	419535.68	32.153037	-104.037914	10.00	10.00
1235.22	632783.69	419508.40	32.152962	-104.037843	10.00	10.00
1259.18	632807.65	419478.81	32.152881	-104.037766	10.00	10.00
1284.83	632833.30	419447.14	32.152793	-104.037683	10.00	10.00
1311.96	632860.43	419413.63	32.152701	-104.037596	10.00	10.00

1340.38	632888.85	419378.53	32.152604	-104.037505	10.00	10.00
1369.87	632918.34	419342.12	32.152504	-104.037410	10.00	10.00
1387.25	632935.72	419320.65	32.152445	-104.037354	10.00	10.00
1400.17	632948.64	419304.70	32.152401	-104.037312	5.00	5.00
1461.83	633010.30	419228.55	32.152191	-104.037113	5.00	5.00
1524.35	633072.82	419151.35	32.151978	-104.036912	5.00	5.00
1573.90	633122.37	419090.16	32.151810	-104.036753	5.00	5.00
1587.24	633135.71	419073.69	32.151764	-104.036710	0.00	0.00
1650.17	633198.64	418995.97	32.151550	-104.036507	0.00	0.00
1713.10	633261.57	418918.26	32.151336	-104.036304	0.00	0.00
1776.04	633324.51	418840.54	32.151122	-104.036102	0.00	0.00
1838.97	633387.44	418762.83	32.150908	-104.035899	0.00	0.00
1901.90	633450.37	418685.11	32.150694	-104.035696	0.00	0.00
1964.83	633513.30	418607.40	32.150480	-104.035494	0.00	0.00
1986.10	633534.57	418581.13	32.150407	-104.035425	0.00	0.00
2027.17	633575.64	418529.21	32.150264	-104.035293	2.00	0.00
2086.89	633635.36	418449.01	32.150043	-104.035101	2.00	0.00
2143.78	633692.25	418366.78	32.149817	-104.034918	2.00	0.00
2197.77	633746.24	418282.61	32.149585	-104.034744	2.00	0.00
2248.78	633797.25	418196.60	32.149348	-104.034580	2.00	0.00
2296.77	633845.24	418108.87	32.149107	-104.034426	2.00	0.00
2341.66	633890.13	418019.52	32.148861	-104.034281	2.00	0.00
2383.41	633931.88	417928.66	32.148611	-104.034147	2.00	0.00
2421.96	633970.43	417836.39	32.148357	-104.034024	2.00	0.00
2457.26	634005.73	417742.84	32.148099	-104.033910	2.00	0.00
2489.28	634037.75	417648.11	32.147839	-104.033808	2.00	0.00
2517.98	634066.45	417552.32	32.147575	-104.033716	2.00	0.00
2543.31	634091.78	417455.59	32.147309	-104.033635	2.00	0.00
2565.25	634113.72	417358.03	32.147041	-104.033565	2.00	0.00
2583.78	634132.25	417259.77	32.146771	-104.033506	2.00	0.00
2598.86	634147.33	417160.91	32.146499	-104.033458	2.00	0.00
2610.49	634158.96	417061.60	32.146226	-104.033421	2.00	0.00
2618.64	634167.11	416961.94	32.145952	-104.033396	2.00	0.00
2623.31	634171.78	416862.05	32.145677	-104.033382	2.00	0.00
2624.53	634173.00	416783.63	32.145461	-104.033379	2.00	0.00
2624.57	634173.04	416762.06	32.145402	-104.033379	0.00	0.00
2624.76	634173.23	416662.06	32.145127	-104.033379	0.00	0.00
2624.94	634173.41	416562.06	32.144852	-104.033379	0.00	0.00
2625.13	634173.60	416462.06	32.144577	-104.033379	0.00	0.00
2625.32	634173.79	416362.06	32.144302	-104.033380	0.00	0.00
2625.51	634173.98	416262.06	32.144028	-104.033380	0.00	0.00
2625.69	634174.16	416162.06	32.143753	-104.033380	0.00	0.00
2625.88	634174.35	416062.06	32.143478	-104.033381	0.00	0.00
2626.07	634174.54	415962.06	32.143203	-104.033381	0.00	0.00

2626.26	634174.73	415862.06	32.142928	-104.033381	0.00	0.00
2626.44	634174.91	415762.06	32.142653	-104.033382	0.00	0.00
2626.63	634175.10	415662.06	32.142378	-104.033382	0.00	0.00
2626.82	634175.29	415562.06	32.142103	-104.033382	0.00	0.00
2627.01	634175.48	415462.06	32.141828	-104.033382	0.00	0.00
2627.19	634175.66	415362.06	32.141554	-104.033383	0.00	0.00
2627.38	634175.85	415262.06	32.141279	-104.033383	0.00	0.00
2627.57	634176.04	415162.06	32.141004	-104.033383	0.00	0.00
2627.76	634176.23	415062.06	32.140729	-104.033384	0.00	0.00
2627.94	634176.41	414962.06	32.140454	-104.033384	0.00	0.00
2628.13	634176.60	414862.06	32.140179	-104.033384	0.00	0.00
2628.32	634176.79	414762.07	32.139904	-104.033384	0.00	0.00
2628.51	634176.98	414662.07	32.139629	-104.033385	0.00	0.00
2628.69	634177.16	414562.07	32.139354	-104.033385	0.00	0.00
2628.88	634177.35	414462.07	32.139080	-104.033385	0.00	0.00
2629.07	634177.54	414362.07	32.138805	-104.033386	0.00	0.00
2629.26	634177.73	414262.07	32.138530	-104.033386	0.00	0.00
2629.44	634177.91	414162.07	32.138255	-104.033386	0.00	0.00
2629.63	634178.10	414062.07	32.137980	-104.033387	0.00	0.00
2629.82	634178.29	413962.07	32.137705	-104.033387	0.00	0.00
2630.01	634178.48	413862.07	32.137430	-104.033387	0.00	0.00
2630.19	634178.66	413762.07	32.137155	-104.033387	0.00	0.00
2630.38	634178.85	413662.07	32.136880	-104.033388	0.00	0.00
2630.57	634179.04	413562.07	32.136606	-104.033388	0.00	0.00
2630.76	634179.23	413462.07	32.136331	-104.033388	0.00	0.00
2630.94	634179.41	413362.07	32.136056	-104.033389	0.00	0.00
2631.13	634179.60	413262.07	32.135781	-104.033389	0.00	0.00
2631.32	634179.79	413162.07	32.135506	-104.033389	0.00	0.00
2631.51	634179.98	413062.07	32.135231	-104.033389	0.00	0.00
2631.69	634180.16	412962.07	32.134956	-104.033390	0.00	0.00
2631.88	634180.35	412862.07	32.134681	-104.033390	0.00	0.00
2632.07	634180.54	412762.07	32.134406	-104.033390	0.00	0.00
2632.26	634180.73	412662.07	32.134132	-104.033391	0.00	0.00
2632.44	634180.91	412562.07	32.133857	-104.033391	0.00	0.00
2632.63	634181.10	412462.07	32.133582	-104.033391	0.00	0.00
2632.82	634181.29	412362.07	32.133307	-104.033392	0.00	0.00
2633.01	634181.48	412262.07	32.133032	-104.033392	0.00	0.00
2633.19	634181.66	412162.07	32.132757	-104.033392	0.00	0.00
2633.38	634181.85	412062.07	32.132482	-104.033392	0.00	0.00
2633.57	634182.04	411962.07	32.132207	-104.033393	0.00	0.00
2633.76	634182.23	411862.07	32.131932	-104.033393	0.00	0.00
2633.94	634182.41	411762.07	32.131657	-104.033393	0.00	0.00
2634.13	634182.60	411662.07	32.131383	-104.033394	0.00	0.00
2634.32	634182.79	411562.07	32.131108	-104.033394	0.00	0.00

2634.51	634182.98	411462.07	32.130833	-104.033394	0.00	0.00
2634.69	634183.16	411362.07	32.130558	-104.033394	0.00	0.00
2634.88	634183.35	411262.07	32.130283	-104.033395	0.00	0.00
2635.07	634183.54	411162.07	32.130008	-104.033395	0.00	0.00
2635.26	634183.73	411062.07	32.129733	-104.033395	0.00	0.00
2635.44	634183.91	410962.07	32.129458	-104.033396	0.00	0.00
2635.63	634184.10	410862.07	32.129183	-104.033396	0.00	0.00
2635.82	634184.29	410762.07	32.128909	-104.033396	0.00	0.00
2636.01	634184.48	410662.07	32.128634	-104.033397	0.00	0.00
2636.19	634184.66	410562.07	32.128359	-104.033397	0.00	0.00
2636.38	634184.85	410462.07	32.128084	-104.033397	0.00	0.00
2636.57	634185.04	410362.07	32.127809	-104.033397	0.00	0.00
2636.76	634185.23	410262.07	32.127534	-104.033398	0.00	0.00
2636.94	634185.41	410162.07	32.127259	-104.033398	0.00	0.00
2637.13	634185.60	410062.07	32.126984	-104.033398	0.00	0.00
2637.32	634185.79	409962.07	32.126709	-104.033399	0.00	0.00
2637.51	634185.98	409862.07	32.126435	-104.033399	0.00	0.00
2637.69	634186.16	409762.07	32.126160	-104.033399	0.00	0.00
2637.88	634186.35	409662.07	32.125885	-104.033399	0.00	0.00
2638.07	634186.54	409562.07	32.125610	-104.033400	0.00	0.00
2638.26	634186.73	409462.07	32.125335	-104.033400	0.00	0.00
2638.44	634186.91	409362.07	32.125060	-104.033400	0.00	0.00
2638.63	634187.10	409262.07	32.124785	-104.033401	0.00	0.00
2638.82	634187.29	409162.08	32.124510	-104.033401	0.00	0.00
2639.01	634187.48	409062.08	32.124235	-104.033401	0.00	0.00
2639.19	634187.66	408962.08	32.123961	-104.033402	0.00	0.00
2639.38	634187.85	408862.08	32.123686	-104.033402	0.00	0.00
2639.57	634188.04	408762.08	32.123411	-104.033402	0.00	0.00
2639.76	634188.23	408662.08	32.123136	-104.033402	0.00	0.00
2639.88	634188.35	408595.64	32.122953	-104.033403	0.00	0.00

Turn Rate	Vertical Section
TRN	VS
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.88

0.00	3.50
0.00	7.87
0.00	13.99
0.00	21.83
0.00	31.41
1.32	32.49
0.00	42.04
0.00	52.69
0.00	63.34
0.00	73.99
0.00	84.63
0.00	95.28
0.00	105.93
0.00	116.58
0.00	127.23
0.00	137.87
0.00	148.52
0.00	159.17
0.00	169.82
0.00	180.46
0.00	191.11
0.00	201.76
0.00	212.41
0.00	223.06
0.00	233.70
0.00	244.35
0.00	255.00
0.00	265.65
0.00	276.30
0.00	286.94
0.00	297.59
0.00	308.24
0.00	318.89
0.00	329.53
0.00	340.18
0.00	350.83
0.00	361.48
0.00	372.13
0.00	382.77
0.00	393.42
0.00	404.07
0.00	414.72
0.00	425.36
0.00	436.01

0.00	446.66
0.00	457.31
0.00	467.96
0.00	478.60
0.00	489.25
0.00	499.90
0.00	510.55
0.00	521.20
0.00	531.84
0.00	542.49
0.00	553.14
0.00	563.79
0.00	574.43
0.00	585.08
0.00	595.73
0.00	606.38
0.00	617.03
0.00	619.54
0.00	627.17
0.00	635.64
0.00	642.37
0.00	647.35
0.00	650.58
0.00	652.05
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.15
0.00	652.45
0.00	655.59
0.00	662.09
0.00	671.91
0.00	684.97
0.00	701.18
0.00	720.41
0.00	742.51
0.00	767.32
0.00	794.65
0.00	824.29
0.00	856.01
0.00	889.57

0.00	924.72
0.00	961.19
0.00	982.69
0.00	998.67
0.00	1074.93
0.00	1152.25
0.00	1213.54
0.00	1230.04
0.00	1307.87
0.00	1385.71
0.00	1463.54
0.00	1541.38
0.00	1619.22
0.00	1697.05
0.00	1723.36
2.00	1775.36
2.00	1855.67
2.00	1938.02
2.00	2022.29
2.00	2108.39
2.00	2196.21
2.00	2285.65
2.00	2376.59
2.00	2468.93
2.00	2562.56
2.00	2657.35
2.00	2753.19
2.00	2849.97
2.00	2947.57
2.00	3045.87
2.00	3144.75
2.00	3244.09
2.00	3343.77
2.00	3443.66
2.00	3522.08
0.00	3543.65
0.00	3643.65
0.00	3743.65
0.00	3843.65
0.00	3943.65
0.00	4043.65
0.00	4143.65
0.00	4243.65
0.00	4343.65

0.00	4443.65
0.00	4543.65
0.00	4643.65
0.00	4743.65
0.00	4843.65
0.00	4943.65
0.00	5043.65
0.00	5143.65
0.00	5243.65
0.00	5343.65
0.00	5443.65
0.00	5543.65
0.00	5643.65
0.00	5743.65
0.00	5843.65
0.00	5943.65
0.00	6043.65
0.00	6143.65
0.00	6243.65
0.00	6343.65
0.00	6443.65
0.00	6543.65
0.00	6643.65
0.00	6743.65
0.00	6843.65
0.00	6943.65
0.00	7043.65
0.00	7143.65
0.00	7243.65
0.00	7343.65
0.00	7443.65
0.00	7543.65
0.00	7643.65
0.00	7743.65
0.00	7843.65
0.00	7943.65
0.00	8043.65
0.00	8143.65
0.00	8243.65
0.00	8343.65
0.00	8443.65
0.00	8543.65
0.00	8643.65
0.00	8743.65

0.00	8843.65
0.00	8943.65
0.00	9043.65
0.00	9143.65
0.00	9243.65
0.00	9343.65
0.00	9443.65
0.00	9543.65
0.00	9643.65
0.00	9743.65
0.00	9843.65
0.00	9943.65
0.00	10043.65
0.00	10143.65
0.00	10243.65
0.00	10343.65
0.00	10443.65
0.00	10543.65
0.00	10643.65
0.00	10743.65
0.00	10843.65
0.00	10943.65
0.00	11043.65
0.00	11143.65
0.00	11243.65
0.00	11343.65
0.00	11443.65
0.00	11543.65
0.00	11643.65
0.00	11710.09

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 8H

OH
Plan 1

Total Directional
"Driven by TOTAL performance"
total

Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

24 June, 2025

Total Report Version 1.60

COMPASS 5000.16 Build 97

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. SF of 6	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Well	Riverbend 12-13 Federal Com 8H						
Well Position	**+N/-S**	0.00 usft	**Northing:**	420,300.68 usft	**Latitude:**	32.1551492	
	+E/-W	0.00 usft	**Easting:**	631,548.47 usft	**Longitude:**	-104.0418276	
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,934.00	usft
Grid Convergence:		0.16 °					

Survey Tool Program **Date** 6/24/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	20,266.44	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Offset Listing

Site Name / Offset Well	Ground Level	KB Height	Map Coordinates Northing	Map Coordinates Easting	Geographical Coordinates Latitude	Geographical Coordinates Longitude	Surface Uncertainty Site	Surface Uncertainty Well
Coterra Energy - Riverbend 12-13 Federal Com								
Riverbend 12-13 Fed Com 19H -	2,934.70	2,957.70	420,359.13	631,629.58	32.1553093	-104.0415650	0.00	0.50
Riverbend 12-13 Fed Com 1H -	2,934.60	2,957.60	420,358.36	631,669.56	32.1553069	-104.0414358	0.00	0.50
Riverbend 12-13 Fed Com 20H -	2,935.00	2,958.00	420,359.51	631,609.59	32.1553105	-104.0416296	0.00	0.50
Riverbend 12-13 Fed Com 29H -	2,937.20	2,960.20	420,547.64	630,584.99	32.1558352	-104.0449388	0.00	0.00
Riverbend 12-13 Fed Com 2H -	2,934.60	2,957.60	420,358.74	631,649.57	32.1553081	-104.0415004	0.00	0.50
Riverbend 12-13 Fed Com 30H -	2,937.60	2,960.60	420,548.00	630,564.98	32.1558364	-104.0450035	0.00	0.00
Riverbend 12-13 Fed Com 31H -	2,937.50	2,960.50	420,608.75	630,526.15	32.1560036	-104.0451284	0.00	0.00
Coterra Energy - Riverbend 12-13 Federal Com								
Riverbend 12-13 Federal Com 3H -	2,934.00	2,957.00	420,302.20	631,468.50	32.1551540	-104.0420860	0.00	0.00
Riverbend 12-13 Federal Com 4H -	2,934.00	2,957.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00
Riverbend 12-13 Federal Com 5H -	2,934.00	2,957.00	420,301.82	631,488.49	32.1551528	-104.0420214	0.00	0.00
Riverbend 12-13 Federal Com 6H -	2,934.00	2,957.00	420,301.06	631,528.48	32.1551504	-104.0418922	0.00	0.00
Riverbend 12-13 Federal Com 7H -	2,934.00	2,957.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00
Coterra Energy - Riverbend 12-13 Federal Com								
Malaga 13 DM Fed Com 1H -	2,888.00	2,908.00	414,150.32	630,383.57	32.1382511	-104.0456449	0.50	0.50
Whistle Pig 1 SB Fee 5H -	2,912.00	2,937.00	424,125.66	633,731.20	32.1656472	-104.0347402	0.50	0.00
Whistle Pig 1 WA Fee 4 -	2,913.00	2,938.00	424,125.66	633,701.20	32.1656475	-104.0348371	0.50	0.00
Whistle Pig 1 WXY Fee 9H -	2,912.00	2,937.00	424,125.66	633,761.20	32.1656470	-104.0346432	0.50	0.00

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset 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
Riverbend 12-13 Fed Com						
Riverbend 12-13 Fed Com 19H - OH - Svy	1,760.57	1,758.42	62.74	50.72	5.22	CC, ES
Riverbend 12-13 Fed Com 19H - OH - Svy	1,810.29	1,806.90	63.59	51.22	5.14	SF
Riverbend 12-13 Fed Com 1H - OH - Svy	4,989.44	4,999.86	100.28	64.64	2.81	CC
Riverbend 12-13 Fed Com 1H - OH - Svy	5,000.00	5,010.20	100.29	64.57	2.81	ES
Riverbend 12-13 Fed Com 1H - OH - Svy	8,926.20	8,891.96	146.03	80.18	2.22	SF
Riverbend 12-13 Fed Com 20H - OH - Svy	1,528.95	1,531.43	68.30	57.97	6.61	CC, ES
Riverbend 12-13 Fed Com 20H - OH - Svy	1,600.00	1,600.98	69.63	58.81	6.43	SF
Riverbend 12-13 Fed Com 29H - OH - Svy	780.93	784.16	989.59	984.55	196.32	CC
Riverbend 12-13 Fed Com 29H - OH - Svy	1,200.00	1,198.22	991.34	983.38	124.60	ES
Riverbend 12-13 Fed Com 29H - OH - Svy	20,100.00	21,947.00	3,381.84	3,131.28	13.50	SF
Riverbend 12-13 Fed Com 2H - OH - Svy	1,687.91	1,687.58	108.99	97.54	9.52	CC
Riverbend 12-13 Fed Com 2H - OH - Svy	1,700.00	1,699.43	109.01	97.48	9.45	ES
Riverbend 12-13 Fed Com 2H - OH - Svy	8,600.00	8,601.74	252.02	189.22	4.01	SF
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,687.91	1,687.58	108.99	97.54	9.52	CC
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,700.00	1,699.43	109.01	97.48	9.45	ES
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	8,600.00	8,601.74	252.02	189.23	4.01	SF
Riverbend 12-13 Fed Com 30H - OH - Svy	0.00	0.00	1,014.12			
Riverbend 12-13 Fed Com 30H - OH - Svy	1,320.23	1,365.57	1,022.10	1,013.09	113.37	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	1,304.52	1,345.50	1,032.81	1,023.85	115.20	CC, ES
Riverbend 12-13 Fed Com 31H - OH - Svy	20,000.00	21,398.00	3,242.61	2,978.02	12.26	SF
Riverbend 12-13 Federal Com						
Riverbend 12-13 Federal Com 3H - OH - Plan 1	0.00	0.00	79.98			
Riverbend 12-13 Federal Com 3H - OH - Plan 1	1,200.00	1,200.00	79.98	71.55	9.48	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	1,200.00	1,200.00	40.00	31.56	4.74	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	1,300.00	1,299.98	41.53	32.39	4.54	SF
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,260.40	1,261.69	57.29	48.49	6.51	CC
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,300.00	1,301.28	57.54	48.47	6.34	ES
Riverbend 12-13 Federal Com 5H - OH - Plan 1	8,400.00	8,392.12	333.54	271.34	5.36	SF
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,200.00	1,200.00	19.99	11.56	2.37	CC, ES
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,300.00	1,299.98	21.54	12.40	2.36	SF
Riverbend 12-13 Federal Com 7H - OH - Plan 1	1,000.00	1,000.00	19.99	12.99	2.85	CC, ES
Riverbend 12-13 Federal Com 7H - OH - Plan 1	1,100.00	1,099.40	21.41	13.70	2.78	SF
Riverbend 12-13 Offsets						
Malaga 13 DM Fed Com 1H - OH - Svy	14,844.67	7,999.00	3,951.69	3,868.15	47.30	CC, ES
Malaga 13 DM Fed Com 1H - OH - Svy	20,266.44	13,300.17	4,653.64	4,470.17	25.36	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	9,478.80	13,295.00	604.66	517.20	6.91	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	9,600.00	13,295.00	581.63	500.39	7.16	ES
Whistle Pig 1 SB Fee 5H - OH - Svy	9,652.14	13,295.00	579.28	500.95	7.39	CC
Whistle Pig 1 WA Fee 4 - OH - Svy	9,374.66	14,593.00	1,067.68	1,005.54	17.18	CC, ES, SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	9,600.00	14,503.00	1,404.99	1,315.54	15.71	SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	9,900.00	14,503.00	1,368.06	1,282.57	16.00	ES
Whistle Pig 1 WXY Fee 9H - OH - Svy	9,920.71	14,503.00	1,367.90	1,282.71	16.06	CC

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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	0.70	0.70	0.00	0.50	54.22	58.45	81.11	99.98				

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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
100.00	100.00	101.40	101.40	0.28	0.53	54.26	58.19	80.86	99.62	98.82	0.80	124.246	
200.00	200.00	202.08	202.07	0.63	0.60	54.37	57.41	80.11	98.57	97.33	1.23	80.039	
300.00	300.00	302.09	302.07	0.99	0.85	54.45	56.49	79.04	97.16	95.32	1.84	52.801	
400.00	400.00	401.73	401.70	1.35	1.16	54.43	55.80	78.02	95.93	93.42	2.51	38.278	
500.00	500.00	501.45	501.42	1.71	1.49	54.43	55.32	77.36	95.11	91.91	3.19	29.772	
600.00	600.00	601.74	601.71	2.07	1.83	54.66	54.49	76.84	94.21	90.31	3.89	24.189	
700.00	700.00	702.04	701.99	2.43	2.17	55.36	52.84	76.46	92.95	88.35	4.60	20.210	
800.00	800.00	802.06	802.00	2.79	2.52	56.14	50.98	75.98	91.51	86.20	5.31	17.244	
900.00	900.00	902.33	902.25	3.14	2.88	56.83	49.25	75.35	90.04	84.02	6.02	14.962	
1,000.00	1,000.00	1,003.02	1,002.91	3.50	3.23	57.72	46.96	74.32	87.94	81.21	6.73	13.064	
1,100.00	1,100.00	1,103.37	1,103.17	3.86	3.59	59.49	43.21	73.34	85.16	77.72	7.45	11.438	
1,200.00	1,200.00	1,202.75	1,202.47	4.22	3.94	61.73	39.07	72.67	82.52	74.37	8.16	10.116	
1,300.00	1,299.98	1,301.13	1,300.82	4.56	4.29	-57.82	36.60	72.58	80.34	71.49	8.85	9.077	
1,400.00	1,399.84	1,400.52	1,400.19	4.90	4.64	-59.57	34.89	73.82	77.89	68.36	9.53	8.173	
1,500.00	1,499.45	1,500.65	1,500.28	5.24	4.98	-63.56	32.87	75.27	73.91	63.69	10.22	7.233	
1,600.00	1,598.70	1,600.47	1,600.08	5.58	5.34	-70.93	30.75	76.14	68.56	57.65	10.91	6.283	
1,700.00	1,697.47	1,699.25	1,698.84	5.93	5.69	-82.41	28.66	76.82	63.83	52.22	11.61	5.499	
1,760.57	1,757.00	1,758.42	1,757.99	6.14	5.89	-91.37	27.72	77.43	62.74	50.72	12.03	5.217	CC, ES
1,800.00	1,795.62	1,796.86	1,796.43	6.28	6.03	-97.77	27.33	78.00	63.27	50.97	12.30	5.145	
1,810.29	1,805.68	1,806.90	1,806.46	6.32	6.06	-99.61	27.25	78.17	63.59	51.22	12.37	5.141	SF
1,900.00	1,893.37	1,894.43	1,893.98	6.63	6.36	-113.61	26.92	79.75	69.21	56.22	12.99	5.329	
2,000.00	1,991.11	1,992.64	1,992.16	6.99	6.70	-125.77	26.88	82.11	79.87	66.19	13.67	5.841	
2,100.00	2,088.85	2,091.34	2,090.81	7.35	7.04	-134.52	26.34	85.22	92.59	78.23	14.37	6.445	
2,200.00	2,186.59	2,188.01	2,187.46	7.72	7.37	-141.81	26.03	86.42	107.83	92.78	15.05	7.165	
2,300.00	2,284.33	2,286.22	2,285.66	8.08	7.71	-148.58	25.23	84.88	125.28	109.54	15.75	7.956	
2,400.00	2,382.07	2,387.67	2,387.08	8.45	8.07	-153.62	22.94	84.84	142.02	125.56	16.47	8.624	
2,500.00	2,479.81	2,486.09	2,485.44	8.82	8.42	-156.95	20.15	86.98	157.78	140.60	17.18	9.185	
2,600.00	2,577.55	2,581.67	2,580.99	9.19	8.76	-159.39	18.91	88.64	175.40	157.53	17.87	9.814	
2,700.00	2,675.29	2,675.61	2,674.93	9.57	9.09	-161.60	18.19	88.75	194.74	176.19	18.55	10.500	
2,800.00	2,773.03	2,772.59	2,771.86	9.94	9.43	-164.00	17.59	86.08	216.36	197.12	19.24	11.243	
2,900.00	2,870.77	2,880.78	2,879.93	10.32	9.81	-166.71	13.27	83.75	235.63	215.61	20.02	11.769	
3,000.00	2,968.51	2,992.80	2,991.46	10.70	10.21	-169.67	3.01	83.85	250.25	229.46	20.79	12.038	
3,100.00	3,066.25	3,108.00	3,105.39	11.07	10.63	-172.79	-13.36	88.08	259.44	237.93	21.51	12.060	
3,200.00	3,163.99	3,217.90	3,213.21	11.45	11.02	-175.71	-32.95	96.34	263.92	241.70	22.22	11.880	
3,300.00	3,261.73	3,327.94	3,320.48	11.83	11.42	-178.16	-53.59	109.50	264.65	241.75	22.90	11.559	
3,400.00	3,359.47	3,431.41	3,420.87	12.21	11.79	179.78	-73.45	124.78	263.11	239.50	23.61	11.143	
3,500.00	3,457.21	3,528.82	3,515.26	12.59	12.15	177.85	-92.30	139.80	261.26	236.88	24.38	10.716	
3,526.57	3,483.18	3,553.26	3,539.02	12.69	12.23	177.43	-96.62	143.45	261.15	236.56	24.59	10.618	
3,600.00	3,554.95	3,623.52	3,607.63	12.97	12.49	176.42	-107.92	153.61	261.79	236.63	25.16	10.403	
3,700.00	3,652.69	3,722.97	3,704.87	13.35	12.85	175.17	-122.98	167.97	263.25	237.34	25.92	10.158	
3,800.00	3,750.43	3,820.17	3,799.95	13.73	13.21	173.92	-137.76	181.73	265.08	238.40	26.68	9.935	
3,900.00	3,848.17	3,917.40	3,895.31	14.12	13.56	172.66	-152.12	194.09	268.55	241.11	27.45	9.785	
4,000.00	3,945.91	4,017.32	3,993.33	14.50	13.93	171.37	-166.98	206.58	272.32	244.12	28.20	9.656	
4,100.00	4,043.65	4,116.55	4,090.66	14.88	14.30	170.07	-181.92	218.88	276.25	247.29	28.96	9.539	
4,200.00	4,141.39	4,216.03	4,188.24	15.27	14.67	168.76	-197.04	230.93	280.54	250.82	29.72	9.439	
4,300.00	4,239.13	4,316.00	4,286.27	15.65	15.04	167.44	-212.46	243.00	284.94	254.46	30.48	9.348	
4,400.00	4,336.87	4,415.67	4,383.99	16.03	15.41	166.15	-227.93	255.08	289.42	258.17	31.25	9.263	
4,500.00	4,434.61	4,517.43	4,483.67	16.42	15.79	164.81	-244.10	267.59	293.77	261.76	32.01	9.178	
4,600.00	4,532.35	4,619.99	4,583.93	16.80	16.17	163.41	-261.06	280.95	297.38	264.61	32.77	9.075	
4,700.00	4,630.09	4,716.97	4,678.78	17.19	16.54	162.17	-276.84	293.66	301.14	267.60	33.54	8.978	
4,800.00	4,727.83	4,816.61	4,776.36	17.57	16.91	161.05	-292.33	306.50	305.42	271.11	34.31	8.902	
4,900.00	4,825.57	4,911.73	4,869.72	17.96	17.27	160.12	-306.40	318.07	310.67	275.60	35.08	8.857	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
5,000.00	4,923.31	5,009.78	4,966.15	18.34	17.64	159.28	-320.29	329.17	316.97	281.13	35.84	8.844	
5,100.00	5,021.05	5,108.01	5,062.83	18.73	18.00	158.50	-333.99	339.82	323.83	287.22	36.60	8.847	
5,200.00	5,118.79	5,206.40	5,159.71	19.11	18.37	157.74	-347.73	350.17	331.07	293.71	37.36	8.861	
5,300.00	5,216.53	5,304.45	5,256.40	19.50	18.74	157.11	-360.75	359.88	339.07	300.95	38.12	8.894	
5,400.00	5,314.27	5,408.02	5,358.43	19.89	19.13	156.43	-374.85	370.77	346.47	307.58	38.90	8.908	
5,500.00	5,412.01	5,507.66	5,456.39	20.27	19.50	155.66	-389.37	381.77	353.28	313.62	39.66	8.907	
5,600.00	5,509.75	5,608.31	5,555.42	20.66	19.88	154.96	-403.76	392.55	360.50	320.07	40.43	8.917	
5,700.00	5,607.50	5,713.94	5,659.11	21.05	20.28	154.17	-419.40	405.19	366.47	325.26	41.21	8.893	
5,800.00	5,705.24	5,816.01	5,758.96	21.43	20.67	153.24	-435.87	418.56	371.26	329.28	41.98	8.843	
5,900.00	5,802.98	5,914.88	5,855.59	21.82	21.04	152.30	-452.20	431.58	376.04	333.29	42.76	8.795	
6,000.00	5,900.72	6,011.61	5,950.27	22.21	21.41	151.47	-467.77	443.87	381.42	337.90	43.53	8.763	
6,100.00	5,998.46	6,109.21	6,045.98	22.59	21.78	150.74	-482.88	455.54	387.64	343.35	44.29	8.752	
6,200.00	6,096.20	6,205.94	6,140.96	22.98	22.15	150.10	-497.48	466.59	394.47	349.42	45.05	8.755	
6,300.00	6,193.94	6,301.11	6,234.62	23.37	22.51	149.60	-511.07	476.58	402.29	356.49	45.80	8.783	
6,400.00	6,291.68	6,404.21	6,336.22	23.75	22.90	149.17	-525.15	487.06	410.49	363.90	46.59	8.812	
6,500.00	6,389.42	6,502.86	6,433.38	24.14	23.27	148.78	-538.56	497.64	418.14	370.79	47.35	8.831	
6,600.00	6,487.16	6,603.40	6,532.56	24.53	23.65	148.54	-551.14	508.30	425.90	377.79	48.12	8.852	
6,700.00	6,584.90	6,702.40	6,630.26	24.92	24.02	148.37	-563.14	518.83	433.64	384.77	48.88	8.872	
6,800.00	6,682.64	6,800.74	6,727.25	25.30	24.39	148.13	-575.69	529.11	441.58	391.94	49.64	8.896	
6,900.00	6,780.38	6,896.81	6,821.95	25.69	24.75	147.78	-588.88	538.47	450.26	399.87	50.39	8.936	
7,000.00	6,878.12	7,004.71	6,928.29	26.08	25.16	147.46	-603.23	549.79	458.18	406.99	51.19	8.951	
7,100.00	6,975.86	7,110.84	7,032.76	26.47	25.56	147.18	-617.06	562.33	464.80	412.83	51.97	8.943	
7,200.00	7,073.60	7,212.10	7,132.01	26.86	25.94	146.71	-631.88	575.88	469.90	417.15	52.75	8.908	
7,300.00	7,171.34	7,303.94	7,222.42	27.24	26.29	146.51	-643.66	586.95	476.29	422.79	53.49	8.904	
7,323.61	7,194.42	7,325.90	7,244.08	27.34	26.37	146.49	-646.26	589.38	478.02	424.35	53.67	8.907	
7,400.00	7,269.29	7,404.53	7,321.63	27.63	26.67	146.35	-656.05	597.90	482.98	428.71	54.26	8.901	
7,500.00	7,367.86	7,509.15	7,423.70	28.01	27.07	145.20	-674.90	610.95	485.62	430.57	55.05	8.822	
7,600.00	7,466.96	7,601.95	7,513.86	28.38	27.43	143.73	-693.53	622.55	485.80	430.01	55.79	8.708	
7,700.00	7,566.46	7,689.01	7,599.01	28.74	27.76	142.36	-709.30	631.46	485.60	429.13	56.47	8.600	
7,800.00	7,666.25	7,784.30	7,692.74	29.09	28.13	140.86	-724.78	638.84	485.19	428.02	57.17	8.487	
7,900.00	7,766.20	7,891.26	7,797.95	29.43	28.53	138.88	-741.72	648.05	481.63	423.68	57.95	8.311	
7,933.80	7,800.00	7,927.90	7,834.06	29.55	28.67	-101.68	-746.82	651.55	479.52	421.31	58.21	8.238	
8,000.00	7,866.20	8,000.11	7,905.29	29.76	28.94	-102.95	-756.02	659.05	474.54	415.84	58.70	8.084	
8,100.00	7,966.20	8,105.79	8,009.57	30.07	29.34	-104.73	-767.95	671.34	465.86	406.44	59.42	7.840	
8,200.00	8,066.20	8,215.36	8,117.47	30.39	29.75	-106.67	-779.93	686.13	455.72	395.59	60.13	7.579	
8,300.00	8,166.20	8,317.69	8,217.37	30.71	30.14	-109.08	-794.30	702.93	444.20	383.38	60.83	7.303	
8,400.00	8,266.20	8,408.77	8,306.07	31.04	30.49	-111.53	-808.60	717.91	434.01	372.49	61.53	7.054	
8,428.80	8,295.00	8,435.19	8,331.86	31.13	30.59	-112.22	-812.60	721.94	431.51	369.78	61.72	6.991	
8,450.00	8,316.20	8,454.77	8,351.02	31.20	30.67	106.48	-815.45	724.81	429.89	368.02	61.87	6.948	
8,500.00	8,366.02	8,500.72	8,396.09	31.38	30.84	106.09	-821.81	731.18	427.28	365.05	62.23	6.866	
8,546.20	8,411.58	8,541.66	8,436.33	31.55	31.00	106.08	-827.31	736.29	426.48	363.92	62.55	6.818	
8,550.00	8,415.30	8,545.02	8,439.64	31.56	31.01	106.10	-827.76	736.68	426.48	363.90	62.58	6.815	
8,600.00	8,463.67	8,589.31	8,483.27	31.75	31.18	106.46	-833.62	741.51	427.58	364.64	62.93	6.794	
8,650.00	8,510.75	8,633.73	8,527.09	31.95	31.35	107.17	-839.52	745.80	430.59	367.30	63.29	6.804	
8,700.00	8,556.19	8,676.00	8,568.82	32.16	31.51	108.07	-845.21	749.41	435.69	372.06	63.63	6.847	
8,750.00	8,599.64	8,721.24	8,613.55	32.37	31.68	109.36	-851.04	752.79	443.01	379.01	64.00	6.922	
8,800.00	8,640.77	8,763.00	8,654.94	32.58	31.83	110.70	-855.93	755.50	452.81	388.46	64.35	7.037	
8,850.00	8,679.28	8,806.24	8,697.83	32.80	31.99	112.24	-860.69	758.09	465.33	400.61	64.71	7.190	
8,900.00	8,714.85	8,848.12	8,739.36	33.02	32.15	113.69	-865.37	760.80	480.61	415.53	65.07	7.386	
8,950.00	8,747.24	8,890.92	8,781.76	33.24	32.31	115.14	-870.35	763.87	498.82	433.38	65.44	7.623	
9,000.00	8,776.18	8,934.47	8,824.75	33.45	32.47	116.49	-876.11	767.73	519.80	454.01	65.79	7.901	
9,050.00	8,801.45	8,971.95	8,861.63	33.67	32.61	117.15	-881.60	771.63	543.62	477.53	66.09	8.226	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
9,100.00	8,822.88	8,999.66	8,888.88	33.88	32.72	116.71	-885.61	774.55	570.76	504.44	66.32	8.606	
9,150.00	8,840.29	9,023.45	8,912.31	34.09	32.81	115.52	-888.92	777.02	601.18	534.67	66.51	9.039	
9,178.80	8,848.43	9,035.33	8,924.02	34.21	32.85	114.44	-890.53	778.23	620.10	553.50	66.60	9.310	
9,200.00	8,853.73	9,043.38	8,931.96	34.30	32.89	114.38	-891.60	779.04	634.59	567.93	66.66	9.519	
9,300.00	8,873.56	9,075.66	8,963.80	34.70	33.01	112.90	-895.78	782.24	707.78	640.90	66.89	10.582	
9,400.00	8,884.77	9,099.42	8,987.27	35.10	33.10	109.40	-898.77	784.51	787.72	720.68	67.03	11.751	
9,478.80	8,887.48	9,112.44	9,000.13	35.42	33.15	105.02	-900.38	785.72	854.37	787.27	67.10	12.733	
9,500.00	8,887.48	9,115.26	9,002.92	35.50	33.16	105.37	-900.73	785.98	872.72	805.60	67.11	13.004	
9,600.00	8,887.48	9,128.35	9,015.86	35.91	33.21	107.01	-902.33	787.16	960.73	893.56	67.17	14.303	
9,700.00	8,887.48	10,227.00	9,724.51	36.33	37.62	149.39	-1,487.71	1,161.70	1,007.27	951.69	55.58	18.123	
9,800.00	8,887.48	10,341.69	9,741.59	36.78	38.08	148.50	-1,590.83	1,208.81	1,033.02	976.50	56.52	18.277	
9,900.00	8,887.48	10,445.30	9,749.32	37.25	38.47	147.15	-1,687.60	1,244.89	1,056.84	998.90	57.94	18.241	
10,000.00	8,887.48	10,508.00	9,751.96	37.74	38.71	146.12	-1,747.67	1,262.62	1,082.70	1,022.95	59.75	18.121	
10,100.00	8,887.48	10,577.71	9,753.81	38.24	38.96	144.81	-1,815.54	1,278.41	1,111.51	1,049.92	61.58	18.048	
10,133.80	8,887.48	10,602.00	9,754.18	38.41	39.05	144.32	-1,839.39	1,282.95	1,121.93	1,059.72	62.21	18.033	
10,200.00	8,887.48	10,636.79	9,754.51	38.76	39.18	143.24	-1,873.72	1,288.55	1,143.03	1,079.61	63.43	18.021	
10,300.00	8,887.48	10,696.00	9,754.66	39.29	39.39	141.47	-1,932.51	1,295.53	1,176.25	1,111.06	65.19	18.044	
10,400.00	8,887.48	10,739.68	9,754.66	39.83	39.54	140.01	-1,976.08	1,298.64	1,211.13	1,144.34	66.79	18.133	
10,500.00	8,887.48	10,790.00	9,754.89	40.37	39.71	138.45	-2,026.37	1,300.14	1,247.79	1,179.50	68.29	18.272	
10,600.00	8,887.48	10,864.24	9,755.27	40.92	39.97	136.52	-2,100.61	1,300.41	1,285.02	1,215.22	69.80	18.411	
10,700.00	8,887.48	10,923.55	9,755.51	41.47	40.17	134.98	-2,159.91	1,299.81	1,321.82	1,250.71	71.11	18.589	
10,800.00	8,887.47	10,978.00	9,756.03	42.02	40.36	133.58	-2,214.31	1,297.50	1,359.37	1,287.09	72.29	18.805	
10,900.00	8,887.47	11,038.22	9,756.80	42.56	40.56	132.17	-2,274.39	1,293.37	1,397.22	1,323.80	73.42	19.030	
11,000.00	8,887.47	11,246.62	9,757.53	43.11	41.32	129.32	-2,482.50	1,286.89	1,429.86	1,354.21	75.65	18.901	
11,100.00	8,887.47	11,336.16	9,757.28	43.65	41.67	128.19	-2,572.00	1,289.00	1,456.16	1,379.29	76.87	18.942	
11,200.00	8,887.46	11,458.23	9,757.16	44.18	42.16	126.98	-2,694.05	1,291.34	1,480.52	1,402.18	78.34	18.899	
11,300.00	8,887.46	11,541.00	9,757.21	44.71	42.50	126.23	-2,776.77	1,294.00	1,501.39	1,421.97	79.42	18.904	
11,400.00	8,887.46	11,616.65	9,757.08	45.22	42.82	125.58	-2,852.41	1,295.22	1,520.79	1,440.38	80.41	18.913	
11,500.00	8,887.45	11,738.58	9,757.03	45.73	43.34	124.83	-2,974.33	1,296.57	1,538.02	1,456.20	81.81	18.799	
11,600.00	8,887.45	11,840.74	9,756.26	46.23	43.80	124.30	-3,076.46	1,299.04	1,550.95	1,467.93	83.01	18.684	
11,700.00	8,887.45	11,915.00	9,755.43	46.72	44.13	123.93	-3,150.71	1,299.65	1,562.13	1,478.22	83.91	18.617	
11,800.00	8,887.44	12,009.00	9,755.53	47.20	44.55	123.62	-3,244.70	1,300.12	1,571.45	1,486.47	84.98	18.492	
11,900.00	8,887.44	12,103.00	9,757.10	47.67	44.99	123.47	-3,338.68	1,301.33	1,578.10	1,492.08	86.01	18.347	
12,000.00	8,887.43	12,218.04	9,758.18	48.13	45.53	123.38	-3,453.70	1,302.81	1,581.44	1,494.17	87.27	18.122	
12,078.43	8,887.43	12,292.52	9,758.49	48.48	45.89	123.38	-3,528.18	1,303.75	1,581.81	1,493.74	88.07	17.961	
12,100.00	8,887.43	12,313.93	9,758.64	48.57	45.99	123.39	-3,549.59	1,304.02	1,581.69	1,493.39	88.30	17.913	
12,200.00	8,887.42	12,412.08	9,759.36	49.01	46.47	123.44	-3,647.72	1,305.27	1,581.19	1,491.83	89.36	17.694	
12,300.00	8,887.42	12,522.84	9,761.16	49.47	47.02	123.53	-3,758.46	1,307.25	1,580.79	1,490.22	90.57	17.453	
12,400.00	8,887.41	12,621.09	9,761.92	49.92	47.51	123.60	-3,856.66	1,309.88	1,579.16	1,487.51	91.66	17.229	
12,445.59	8,887.41	12,652.74	9,762.19	50.13	47.67	123.61	-3,888.31	1,310.32	1,578.91	1,486.91	92.00	17.162	
12,500.00	8,887.41	12,670.00	9,762.35	50.39	47.76	123.62	-3,905.57	1,310.44	1,579.34	1,487.18	92.16	17.137	
12,600.00	8,887.40	12,764.00	9,763.67	50.86	48.24	123.63	-3,999.54	1,308.92	1,581.62	1,488.40	93.22	16.966	
12,700.00	8,887.40	12,816.53	9,764.13	51.34	48.50	123.59	-4,051.99	1,306.25	1,586.15	1,492.40	93.75	16.918	
12,800.00	8,887.39	12,910.05	9,763.46	51.82	48.97	123.42	-4,145.23	1,298.91	1,592.43	1,497.57	94.86	16.788	
12,900.00	8,887.39	13,023.04	9,764.18	52.31	49.54	123.30	-4,258.01	1,292.21	1,597.87	1,501.65	96.22	16.606	
13,000.00	8,887.38	13,162.88	9,764.85	52.81	50.26	123.20	-4,397.71	1,286.10	1,602.00	1,504.05	97.96	16.354	
13,100.00	8,887.37	13,295.65	9,765.96	53.31	50.97	123.19	-4,530.45	1,284.42	1,603.67	1,504.09	99.58	16.104	
13,200.00	8,887.37	13,422.81	9,767.76	53.82	51.67	123.27	-4,657.59	1,286.14	1,603.47	1,502.35	101.12	15.857	
13,300.00	8,887.36	13,555.55	9,769.17	54.34	52.42	123.41	-4,790.23	1,291.02	1,601.06	1,498.34	102.72	15.587	
13,400.00	8,887.36	13,669.82	9,770.90	54.86	53.08	123.57	-4,904.33	1,296.97	1,597.72	1,493.64	104.08	15.350	
13,500.00	8,887.35	13,752.50	9,773.25	55.38	53.56	123.75	-4,986.78	1,302.48	1,593.97	1,488.90	105.07	15.171	
13,600.00	8,887.35	13,822.56	9,773.82	55.91	53.96	123.81	-5,056.81	1,304.58	1,592.09	1,486.17	105.92	15.031	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS **Rule Assigned:** **Offset Well Error:** 0.50 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
13,658.68	8,887.35	13,865.59	9,774.02	56.23	54.21	123.82	-5,099.84	1,305.04	1,591.80	1,485.36	106.44	14.955	
13,700.00	8,887.34	13,898.55	9,774.19	56.45	54.40	123.82	-5,132.80	1,305.09	1,591.93	1,485.09	106.84	14.900	
13,800.00	8,887.34	14,003.50	9,774.44	56.99	55.00	123.83	-5,237.75	1,305.03	1,592.27	1,484.10	108.16	14.721	
13,900.00	8,887.33	14,100.77	9,775.57	57.54	55.57	123.87	-5,335.00	1,305.67	1,592.52	1,483.14	109.38	14.560	
14,000.00	8,887.33	14,194.15	9,776.22	58.09	56.12	123.88	-5,428.38	1,305.57	1,593.15	1,482.60	110.55	14.411	
14,100.00	8,887.32	14,296.71	9,775.27	58.64	56.72	123.82	-5,530.92	1,304.15	1,593.96	1,482.08	111.88	14.247	
14,200.00	8,887.32	14,419.92	9,771.75	59.20	57.45	123.67	-5,654.06	1,301.92	1,594.07	1,480.55	113.52	14.042	
14,300.00	8,887.31	14,523.63	9,769.75	59.77	58.07	123.61	-5,757.75	1,302.23	1,592.90	1,478.02	114.88	13.866	
14,400.00	8,887.31	14,619.29	9,768.55	60.34	58.65	123.58	-5,853.41	1,302.64	1,592.01	1,475.88	116.13	13.709	
14,500.00	8,887.30	14,714.87	9,767.42	60.91	59.22	123.55	-5,948.97	1,302.80	1,591.37	1,474.00	117.37	13.558	
14,544.75	8,887.30	14,751.81	9,766.72	61.17	59.45	123.52	-5,985.90	1,302.56	1,591.23	1,473.37	117.85	13.502	
14,600.00	8,887.30	14,792.17	9,766.00	61.49	59.69	123.48	-6,026.25	1,301.93	1,591.49	1,473.12	118.36	13.446	
14,700.00	8,887.29	14,878.24	9,764.59	62.07	60.22	123.39	-6,112.28	1,299.52	1,593.06	1,473.58	119.48	13.333	
14,800.00	8,887.29	14,974.45	9,762.82	62.65	60.80	123.27	-6,208.42	1,296.34	1,594.96	1,474.21	120.76	13.208	
14,900.00	8,887.28	15,132.94	9,761.35	63.24	61.77	123.18	-6,366.86	1,294.38	1,595.92	1,472.96	122.96	12.979	
15,000.00	8,887.28	15,244.00	9,760.61	63.83	62.47	123.22	-6,477.87	1,297.46	1,593.33	1,468.89	124.44	12.804	
15,100.00	8,887.27	15,324.71	9,759.72	64.43	62.98	123.21	-6,558.58	1,298.48	1,591.79	1,466.28	125.51	12.683	
15,200.00	8,887.27	15,434.49	9,759.73	65.03	63.67	123.24	-6,668.33	1,300.27	1,590.61	1,463.63	126.98	12.526	
15,300.00	8,887.26	15,544.93	9,760.01	65.63	64.38	123.31	-6,778.72	1,303.67	1,588.31	1,459.85	128.46	12.364	
15,400.00	8,887.25	15,643.62	9,760.07	66.24	65.01	123.37	-6,877.37	1,306.62	1,586.01	1,456.22	129.79	12.220	
15,500.00	8,887.25	15,733.02	9,760.20	66.85	65.58	123.42	-6,966.74	1,309.08	1,583.96	1,452.98	130.98	12.093	
15,600.00	8,887.24	15,830.78	9,759.88	67.46	66.21	123.44	-7,064.48	1,310.67	1,582.58	1,450.27	132.30	11.962	
15,700.00	8,887.24	15,930.64	9,760.39	68.07	66.86	123.50	-7,164.31	1,313.03	1,581.05	1,447.39	133.65	11.829	
15,800.00	8,887.23	16,021.63	9,760.96	68.69	67.45	123.55	-7,255.27	1,314.93	1,579.82	1,444.94	134.88	11.713	
15,900.00	8,887.23	16,133.37	9,761.78	69.31	68.18	123.61	-7,367.00	1,317.13	1,578.76	1,442.35	136.41	11.573	
16,000.00	8,887.22	16,226.59	9,762.95	69.94	68.79	123.70	-7,460.17	1,319.77	1,577.27	1,439.60	137.67	11.457	
16,100.00	8,887.22	16,331.78	9,764.29	70.56	69.48	123.79	-7,565.31	1,322.54	1,575.95	1,436.83	139.12	11.328	
16,200.00	8,887.21	16,437.00	9,765.05	71.19	70.18	123.87	-7,670.49	1,325.41	1,574.24	1,433.68	140.56	11.200	
16,300.00	8,887.21	16,534.91	9,766.34	71.83	70.83	123.97	-7,768.33	1,328.76	1,572.30	1,430.40	141.90	11.080	
16,400.00	8,887.20	16,613.00	9,766.58	72.46	71.35	124.00	-7,846.41	1,330.03	1,571.27	1,428.32	142.96	10.991	
16,442.06	8,887.20	16,649.75	9,766.38	72.73	71.59	123.99	-7,883.16	1,330.04	1,571.20	1,427.75	143.46	10.952	
16,500.00	8,887.20	16,706.00	9,766.18	73.10	71.96	123.98	-7,939.41	1,329.85	1,571.34	1,427.11	144.24	10.894	
16,600.00	8,887.19	16,774.12	9,765.35	73.74	72.41	123.92	-8,007.50	1,328.34	1,572.60	1,427.49	145.11	10.837	
16,700.00	8,887.19	16,876.00	9,763.31	74.38	73.07	123.78	-8,109.27	1,324.22	1,575.00	1,428.45	146.55	10.747	
16,800.00	8,887.18	16,993.70	9,763.22	75.02	73.85	123.73	-8,226.96	1,322.33	1,576.46	1,428.21	148.25	10.634	
16,900.00	8,887.18	17,096.30	9,763.23	75.67	74.53	123.71	-8,329.55	1,321.50	1,577.29	1,427.59	149.70	10.536	
17,000.00	8,887.17	17,175.00	9,762.80	76.32	75.06	123.68	-8,408.25	1,320.69	1,578.15	1,427.41	150.74	10.469	
17,100.00	8,887.17	17,269.00	9,762.49	76.97	75.68	123.61	-8,502.20	1,317.95	1,580.55	1,428.50	152.05	10.395	
17,200.00	8,887.16	17,378.59	9,762.34	77.62	76.41	123.53	-8,611.72	1,314.14	1,583.61	1,429.98	153.63	10.308	
17,300.00	8,887.16	17,491.00	9,762.07	78.28	77.16	123.47	-8,724.12	1,312.09	1,585.17	1,429.91	155.26	10.210	
17,400.00	8,887.15	17,605.84	9,761.76	78.93	77.94	123.44	-8,838.95	1,311.23	1,585.80	1,428.88	156.92	10.106	
17,500.00	8,887.14	17,718.46	9,762.02	79.59	78.70	123.46	-8,951.56	1,312.02	1,585.50	1,426.96	158.54	10.001	
17,600.00	8,887.14	17,808.62	9,761.62	80.25	79.31	123.45	-9,041.73	1,312.43	1,585.04	1,425.24	159.80	9.919	
17,604.23	8,887.14	17,812.27	9,761.59	80.28	79.34	123.45	-9,045.37	1,312.43	1,585.04	1,425.19	159.85	9.916	
17,700.00	8,887.13	17,905.72	9,760.96	80.91	79.97	123.42	-9,138.82	1,312.02	1,585.19	1,424.01	161.18	9.835	
17,800.00	8,887.13	18,011.99	9,760.04	81.58	80.70	123.38	-9,245.08	1,311.64	1,585.17	1,422.46	162.71	9.742	
17,871.63	8,887.13	18,079.68	9,759.26	82.06	81.16	123.35	-9,312.77	1,311.38	1,585.06	1,421.39	163.67	9.685	
17,900.00	8,887.12	18,106.12	9,758.95	82.24	81.34	123.34	-9,339.21	1,311.21	1,585.08	1,421.04	164.04	9.663	
18,000.00	8,887.12	18,206.10	9,756.90	82.91	82.02	123.25	-9,439.15	1,309.88	1,585.22	1,419.74	165.48	9.580	
18,100.00	8,887.11	18,301.00	9,754.54	83.58	82.67	123.14	-9,534.01	1,308.08	1,585.60	1,418.77	166.83	9.504	
18,200.00	8,887.11	18,395.00	9,752.97	84.25	83.32	123.05	-9,627.98	1,306.54	1,586.22	1,418.05	168.17	9.432	
18,300.00	8,887.10	18,491.53	9,751.64	84.92	83.98	122.98	-9,724.49	1,304.89	1,587.07	1,417.52	169.54	9.361	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
18,400.00	8,887.10	18,629.70	9,749.95	85.60	84.93	122.92	-9,862.65	1,304.50	1,586.75	1,415.14	171.62	9.246	
18,500.00	8,887.09	18,763.24	9,748.32	86.27	85.87	122.93	-9,996.11	1,308.18	1,583.80	1,410.26	173.55	9.126	
18,600.00	8,887.09	18,844.12	9,747.44	86.95	86.43	122.96	-10,076.92	1,311.24	1,580.34	1,405.63	174.71	9.045	
18,700.00	8,887.08	18,932.81	9,746.27	87.63	87.05	122.95	-10,165.60	1,312.36	1,578.69	1,402.70	175.98	8.971	
18,800.00	8,887.08	19,035.97	9,745.15	88.31	87.77	122.94	-10,268.74	1,313.83	1,577.06	1,399.58	177.48	8.886	
18,900.00	8,887.07	19,150.16	9,744.83	88.99	88.57	122.98	-10,382.89	1,316.78	1,574.91	1,395.78	179.13	8.792	
19,000.00	8,887.07	19,238.00	9,744.11	89.67	89.19	123.00	-10,470.71	1,318.71	1,572.76	1,392.37	180.39	8.718	
19,100.00	8,887.06	19,346.03	9,742.97	90.36	89.95	123.00	-10,578.70	1,320.93	1,570.62	1,388.66	181.96	8.631	
19,200.00	8,887.06	19,442.76	9,741.93	91.04	90.63	123.01	-10,675.41	1,322.90	1,568.49	1,385.12	183.37	8.554	
19,300.00	8,887.05	19,553.85	9,741.01	91.73	91.42	123.04	-10,786.45	1,326.28	1,565.60	1,380.62	184.98	8.464	
19,400.00	8,887.05	19,635.79	9,740.12	92.42	92.00	123.05	-10,868.35	1,328.24	1,563.20	1,377.04	186.16	8.397	
19,500.00	8,887.04	19,710.71	9,739.49	93.11	92.52	123.04	-10,943.27	1,328.78	1,562.28	1,375.07	187.20	8.345	
19,512.06	8,887.04	19,720.61	9,739.42	93.19	92.59	123.04	-10,953.17	1,328.76	1,562.27	1,374.93	187.34	8.339	
19,600.00	8,887.04	19,794.00	9,738.83	93.80	93.11	123.00	-11,026.55	1,328.07	1,562.72	1,374.35	188.37	8.296	
19,700.00	8,887.03	19,887.16	9,738.00	94.49	93.76	122.94	-11,119.69	1,326.37	1,563.91	1,374.21	189.70	8.244	
19,800.00	8,887.02	19,992.40	9,737.21	95.18	94.50	122.88	-11,224.92	1,324.61	1,565.07	1,373.82	191.25	8.183	
19,900.00	8,887.02	20,087.10	9,736.14	95.87	95.16	122.80	-11,319.59	1,322.73	1,566.29	1,373.67	192.62	8.132	
20,000.00	8,887.01	20,181.84	9,735.62	96.57	95.83	122.75	-11,414.31	1,320.90	1,567.77	1,373.80	193.98	8.082	
20,100.00	8,887.01	20,227.00	9,735.89	97.26	96.15	122.74	-11,459.46	1,320.21	1,570.47	1,376.18	194.29	8.083	
20,200.00	8,887.00	20,227.00	9,735.89	97.96	96.15	122.74	-11,459.46	1,320.21	1,578.83	1,385.66	193.18	8.173	
20,266.44	8,887.00	20,227.00	9,735.89	98.42	96.15	122.74	-11,459.46	1,320.21	1,587.85	1,395.75	192.10	8.266	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.60	0.60	0.00	0.50	64.53	57.68	121.09	134.13				
100.00	100.00	101.36	101.36	0.28	0.53	64.64	57.32	120.94	133.84	133.04	0.80	166.958	
200.00	200.00	202.29	202.28	0.63	0.60	64.98	56.24	120.50	132.99	131.76	1.23	107.948	
300.00	300.00	310.51	310.34	0.99	0.88	65.88	52.27	116.71	128.25	126.37	1.88	68.117	
400.00	400.00	407.13	406.75	1.35	1.19	66.73	48.13	111.91	121.98	119.45	2.53	48.152	
500.00	500.00	505.68	505.20	1.71	1.51	67.07	45.83	108.35	117.74	114.52	3.22	36.609	
600.00	600.00	605.54	604.98	2.07	1.85	66.84	44.71	104.51	113.76	109.85	3.91	29.070	
700.00	700.00	703.52	702.90	2.43	2.18	66.32	44.35	101.14	110.46	105.86	4.61	23.980	
766.83	766.83	768.05	767.43	2.67	2.40	66.07	44.54	100.38	109.82	104.75	5.06	21.688	
800.00	800.00	800.49	799.87	2.79	2.51	66.04	44.64	100.45	109.93	104.64	5.29	20.784	
900.00	900.00	898.65	898.01	3.14	2.83	66.35	44.71	102.11	111.50	105.53	5.97	18.683	
1,000.00	1,000.00	998.66	997.98	3.50	3.16	66.97	44.63	104.97	114.10	107.44	6.66	17.137	
1,100.00	1,100.00	1,099.66	1,098.95	3.86	3.50	67.64	44.09	107.20	115.93	108.57	7.36	15.754	
1,200.00	1,200.00	1,198.70	1,197.98	4.22	3.84	67.90	44.20	108.85	117.51	109.46	8.05	14.592	
1,300.00	1,299.98	1,296.86	1,296.09	4.56	4.17	-52.95	45.74	111.38	119.44	110.71	8.73	13.682	
1,400.00	1,399.84	1,396.31	1,395.46	4.90	4.51	-55.27	48.02	114.80	120.45	111.04	9.40	12.809	
1,500.00	1,499.45	1,495.92	1,494.98	5.24	4.86	-58.88	50.15	118.39	119.88	109.80	10.09	11.886	
1,600.00	1,598.70	1,595.19	1,594.16	5.58	5.20	-64.13	52.55	121.90	118.34	107.56	10.77	10.985	
1,700.00	1,697.47	1,693.45	1,692.31	5.93	5.55	-71.17	55.47	125.38	116.99	105.53	11.46	10.209	
1,744.00	1,740.74	1,736.76	1,735.57	6.08	5.70	-74.85	56.92	126.95	116.83	105.06	11.77	9.930	
1,800.00	1,795.62	1,791.66	1,790.41	6.28	5.89	-80.03	58.89	128.81	117.19	105.04	12.15	9.641	
1,810.29	1,805.68	1,801.75	1,800.49	6.32	5.93	-81.17	59.27	129.14	117.35	105.12	12.23	9.598	
1,900.00	1,893.37	1,889.63	1,888.26	6.63	6.23	-89.92	62.53	131.89	120.28	107.42	12.86	9.356	
2,000.00	1,991.11	1,987.16	1,985.64	6.99	6.58	-98.52	65.94	135.85	126.89	113.33	13.56	9.360	
2,100.00	2,088.85	2,086.70	2,084.95	7.35	6.93	-105.17	68.15	142.36	135.52	121.24	14.27	9.495	
2,200.00	2,186.59	2,186.18	2,184.10	7.72	7.28	-110.33	69.34	150.33	144.95	129.97	14.99	9.671	
2,300.00	2,284.33	2,287.24	2,284.73	8.08	7.64	-114.45	69.45	159.55	154.43	138.72	15.71	9.830	
2,400.00	2,382.07	2,389.73	2,386.57	8.45	8.00	-117.39	67.50	170.90	162.67	146.23	16.44	9.896	
2,500.00	2,479.81	2,492.05	2,488.08	8.82	8.37	-119.71	63.66	183.20	169.41	152.25	17.16	9.872	
2,600.00	2,577.55	2,594.20	2,589.56	9.19	8.73	-122.54	58.14	193.40	174.84	156.97	17.88	9.780	
2,700.00	2,675.29	2,693.81	2,688.66	9.57	9.08	-125.79	51.89	201.30	179.99	161.40	18.59	9.680	
2,800.00	2,773.03	2,796.21	2,790.53	9.94	9.45	-129.11	44.82	208.99	185.15	165.84	19.31	9.590	
2,900.00	2,870.77	2,900.68	2,894.13	10.32	9.82	-131.97	35.25	218.41	188.34	168.33	20.01	9.411	
3,000.00	2,968.51	3,009.59	3,001.49	10.70	10.21	-134.32	21.98	230.84	188.41	167.73	20.68	9.111	
3,100.00	3,066.25	3,117.56	3,106.87	11.07	10.60	-136.19	4.05	246.02	183.68	162.36	21.31	8.618	
3,200.00	3,163.99	3,217.85	3,204.24	11.45	10.96	-137.96	-14.73	260.96	176.81	154.79	22.03	8.027	
3,300.00	3,261.73	3,316.36	3,299.87	11.83	11.32	-139.70	-33.01	275.99	170.17	147.39	22.77	7.472	
3,400.00	3,359.47	3,412.73	3,393.71	12.21	11.67	-141.36	-49.31	290.64	165.27	141.72	23.55	7.018	
3,500.00	3,457.21	3,510.59	3,489.22	12.59	12.03	-142.98	-64.57	305.51	161.78	137.47	24.31	6.655	
3,600.00	3,554.95	3,606.98	3,583.74	12.97	12.39	-144.74	-77.77	319.02	160.68	135.59	25.08	6.405	
3,700.00	3,652.69	3,708.90	3,683.75	13.35	12.77	-146.72	-91.60	332.98	160.01	134.21	25.80	6.201	
3,800.00	3,750.43	3,812.00	3,784.49	13.73	13.15	-148.56	-107.14	348.44	157.56	131.05	26.51	5.944	
3,900.00	3,848.17	3,913.26	3,883.06	14.12	13.53	-150.15	-123.31	365.03	153.75	126.51	27.23	5.646	
4,000.00	3,945.91	4,013.90	3,980.88	14.50	13.91	-151.66	-139.67	382.12	149.49	121.53	27.97	5.346	
4,100.00	4,043.65	4,113.41	4,077.56	14.88	14.28	-153.56	-156.58	398.52	144.99	116.27	28.72	5.048	
4,200.00	4,141.39	4,212.63	4,174.10	15.27	14.66	-155.82	-173.37	414.07	141.20	111.72	29.49	4.789	
4,300.00	4,239.13	4,311.59	4,270.47	15.65	15.03	-158.03	-189.60	429.70	138.01	107.75	30.26	4.561	
4,400.00	4,336.87	4,413.45	4,369.61	16.03	15.42	-160.27	-206.20	446.12	134.89	103.91	30.98	4.354	
4,500.00	4,434.61	4,517.41	4,470.16	16.42	15.82	-162.61	-224.97	464.69	129.43	97.79	31.64	4.091	
4,600.00	4,532.35	4,618.43	4,567.24	16.80	16.21	-164.99	-244.68	484.47	121.87	89.50	32.37	3.765	
4,700.00	4,630.09	4,718.22	4,662.95	17.19	16.60	-167.55	-264.47	504.62	113.86	80.72	33.14	3.436	
4,800.00	4,727.83	4,815.74	4,756.72	17.57	16.98	-170.92	-283.94	523.02	107.07	73.08	33.99	3.150	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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	4,825.57	4,914.13	4,851.61	17.96	17.36	-175.28	-303.62	540.02	102.01	67.18	34.83	2.929	
4,989.44	4,913.00	4,999.86	4,934.79	18.30	17.69	-179.44	-319.72	553.02	100.28	64.64	35.63	2.814	CC
5,000.00	4,923.31	5,010.20	4,944.87	18.34	17.73	-179.93	-321.56	554.45	100.29	64.57	35.72	2.808	ES
5,100.00	5,021.05	5,108.43	5,040.79	18.73	18.10	175.67	-338.18	567.56	101.65	65.11	36.54	2.782	
5,200.00	5,118.79	5,207.26	5,137.55	19.11	18.48	171.74	-353.95	580.12	104.58	67.23	37.35	2.800	
5,300.00	5,216.53	5,306.36	5,234.80	19.50	18.85	168.48	-368.69	592.12	108.92	70.78	38.14	2.856	
5,400.00	5,314.27	5,408.39	5,334.97	19.89	19.24	166.10	-382.70	605.53	112.93	74.01	38.91	2.902	
5,500.00	5,412.01	5,510.79	5,434.89	20.27	19.63	163.39	-398.39	621.52	114.25	74.57	39.68	2.879	
5,600.00	5,509.75	5,609.67	5,531.24	20.66	20.02	160.73	-413.85	637.42	115.31	74.82	40.49	2.848	
5,700.00	5,607.50	5,708.47	5,627.92	21.05	20.39	158.74	-427.88	652.20	117.96	76.68	41.29	2.857	
5,800.00	5,705.24	5,808.66	5,726.00	21.43	20.78	156.85	-441.99	667.05	120.91	78.84	42.07	2.874	
5,900.00	5,802.98	5,908.01	5,823.20	21.82	21.16	155.01	-456.13	681.90	123.85	80.98	42.86	2.889	
6,000.00	5,900.72	6,006.60	5,919.87	22.21	21.54	153.51	-469.60	695.83	127.77	84.13	43.65	2.927	
6,100.00	5,998.46	6,105.35	6,016.95	22.59	21.91	152.50	-482.13	708.92	132.72	88.30	44.42	2.988	
6,200.00	6,096.20	6,205.49	6,115.48	22.98	22.29	151.70	-494.45	721.81	138.11	92.91	45.20	3.056	
6,300.00	6,193.94	6,305.18	6,213.48	23.37	22.67	150.72	-507.34	734.84	143.30	97.33	45.97	3.117	
6,400.00	6,291.68	6,406.58	6,313.04	23.75	23.06	149.63	-520.85	748.44	148.19	101.43	46.75	3.170	
6,500.00	6,389.42	6,507.36	6,411.77	24.14	23.44	148.32	-535.05	762.88	152.21	104.67	47.53	3.202	
6,600.00	6,487.16	6,607.34	6,509.54	24.53	23.83	146.80	-549.88	777.58	155.95	107.63	48.32	3.227	
6,700.00	6,584.90	6,706.15	6,606.26	24.92	24.21	145.45	-564.35	791.76	160.13	111.03	49.10	3.261	
6,800.00	6,682.64	6,805.13	6,703.49	25.30	24.59	144.86	-576.94	805.31	164.91	115.04	49.88	3.307	
6,900.00	6,780.38	6,903.74	6,800.48	25.69	24.96	144.37	-589.35	818.04	170.48	119.84	50.64	3.366	
7,000.00	6,878.12	7,003.94	6,899.05	26.08	25.34	143.88	-602.07	830.82	176.23	124.81	51.42	3.427	
7,100.00	6,975.86	7,104.96	6,998.10	26.47	25.73	142.83	-616.66	844.19	181.70	129.50	52.20	3.481	
7,200.00	7,073.60	7,204.71	7,095.91	26.86	26.11	142.07	-630.28	858.21	186.29	133.31	52.98	3.516	
7,300.00	7,171.34	7,309.07	7,198.78	27.24	26.51	142.29	-641.41	871.82	191.61	137.86	53.75	3.565	
7,323.61	7,194.42	7,336.72	7,225.80	27.34	26.62	142.14	-644.90	876.47	192.02	138.10	53.92	3.561	
7,400.00	7,269.29	7,422.46	7,308.39	27.63	26.95	140.25	-659.09	894.49	189.71	135.29	54.43	3.486	
7,500.00	7,367.86	7,520.96	7,401.24	28.01	27.35	135.26	-681.11	918.88	182.17	126.89	55.28	3.296	
7,600.00	7,466.96	7,615.49	7,490.87	28.38	27.74	129.61	-701.87	940.59	175.45	119.31	56.14	3.125	
7,700.00	7,566.46	7,711.12	7,582.49	28.74	28.12	123.57	-721.02	960.12	170.23	113.31	56.93	2.990	
7,800.00	7,666.25	7,805.29	7,673.82	29.09	28.49	117.72	-737.29	976.27	166.84	109.21	57.63	2.895	
7,900.00	7,766.20	7,902.62	7,769.31	29.43	28.86	112.15	-751.13	988.98	165.45	107.14	58.31	2.837	
7,933.80	7,800.00	7,936.95	7,803.09	29.55	28.99	-129.80	-755.66	993.20	165.07	106.52	58.55	2.819	
8,000.00	7,866.20	8,006.22	7,871.01	29.76	29.26	-134.50	-764.70	1,003.29	163.69	104.68	59.01	2.774	
8,072.85	7,939.05	8,076.54	7,939.65	29.99	29.53	-139.86	-774.30	1,015.19	162.59	103.13	59.47	2.734	
8,100.00	7,966.20	8,102.37	7,964.80	30.07	29.63	-141.93	-778.13	1,019.66	162.76	103.13	59.63	2.730	
8,200.00	8,066.20	8,198.59	8,058.65	30.39	30.01	-149.25	-792.45	1,035.24	165.96	105.74	60.22	2.756	
8,300.00	8,166.20	8,296.37	8,154.39	30.71	30.39	-155.71	-806.41	1,049.40	172.06	111.22	60.84	2.828	
8,400.00	8,266.20	8,388.71	8,244.63	31.04	30.74	-161.41	-820.98	1,062.48	181.75	120.40	61.35	2.962	
8,428.80	8,295.00	8,416.43	8,271.66	31.13	30.85	-163.02	-825.81	1,066.32	185.38	123.86	61.52	3.013	
8,450.00	8,316.20	8,437.07	8,291.78	31.20	30.93	54.71	-829.42	1,069.13	187.94	126.29	61.65	3.048	
8,500.00	8,366.02	8,486.35	8,339.85	31.38	31.12	52.73	-838.04	1,075.68	192.40	130.40	61.99	3.103	
8,550.00	8,415.30	8,538.78	8,391.14	31.56	31.32	52.17	-846.80	1,082.21	193.99	131.58	62.42	3.108	
8,600.00	8,463.67	8,591.38	8,442.79	31.75	31.53	53.18	-854.74	1,088.18	192.29	129.43	62.86	3.059	
8,650.00	8,510.75	8,644.15	8,494.68	31.95	31.73	55.59	-861.91	1,094.53	187.28	123.96	63.32	2.958	
8,700.00	8,556.19	8,694.00	8,543.69	32.16	31.92	59.27	-868.07	1,101.24	179.40	115.64	63.76	2.814	
8,750.00	8,599.64	8,740.30	8,589.11	32.37	32.10	64.20	-874.07	1,107.95	170.16	105.97	64.19	2.651	
8,800.00	8,640.77	8,785.52	8,633.34	32.58	32.27	70.60	-880.36	1,114.89	160.66	96.02	64.64	2.485	
8,850.00	8,679.28	8,829.23	8,676.03	32.80	32.44	78.46	-886.77	1,121.79	152.27	87.15	65.12	2.338	
8,900.00	8,714.85	8,871.09	8,716.84	33.02	32.60	87.40	-893.21	1,128.52	146.88	81.27	65.61	2.239	
8,926.20	8,732.24	8,891.96	8,737.18	33.13	32.69	92.23	-896.48	1,131.84	146.03	80.18	65.85	2.218	SF

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
8,950.00	8,747.24	8,910.28	8,755.04	33.24	32.76	96.59	-899.38	1,134.71	146.81	80.76	66.05	2.223	
9,000.00	8,776.18	8,946.68	8,790.54	33.45	32.90	105.13	-905.20	1,140.27	154.12	87.72	66.40	2.321	
9,050.00	8,801.45	8,980.33	8,823.37	33.67	33.03	112.33	-910.67	1,145.28	169.69	103.05	66.64	2.546	
9,100.00	8,822.88	9,010.99	8,853.25	33.88	33.15	117.81	-915.76	1,149.80	193.00	126.21	66.80	2.889	
9,150.00	8,840.29	9,038.28	8,879.86	34.09	33.26	121.43	-920.39	1,153.79	222.86	155.96	66.90	3.331	
9,178.80	8,848.43	9,052.40	8,893.61	34.21	33.31	122.67	-922.82	1,155.83	242.51	175.57	66.95	3.623	
9,200.00	8,853.73	9,061.45	8,902.43	34.30	33.35	123.98	-924.38	1,157.14	257.89	190.91	66.98	3.850	
9,300.00	8,873.56	9,098.27	8,938.37	34.70	33.49	127.37	-930.57	1,162.18	337.57	270.46	67.11	5.030	
9,400.00	8,884.77	9,126.02	8,965.53	35.10	33.60	126.62	-935.07	1,165.72	425.37	358.15	67.22	6.328	
9,478.80	8,887.48	9,147.00	8,986.09	35.42	33.68	124.24	-938.38	1,168.25	498.21	430.91	67.30	7.403	
9,500.00	8,887.48	9,147.00	8,986.09	35.50	33.68	124.24	-938.38	1,168.25	518.13	450.83	67.30	7.699	
9,600.00	8,887.48	9,164.07	9,002.84	35.91	33.74	128.53	-941.03	1,170.26	612.98	545.61	67.38	9.098	
9,700.00	8,887.48	9,182.85	9,021.26	36.33	33.82	132.73	-943.90	1,172.47	708.74	641.27	67.47	10.504	
9,800.00	8,887.48	9,201.40	9,039.46	36.78	33.89	136.38	-946.71	1,174.67	805.09	737.50	67.58	11.913	
9,900.00	8,887.48	10,375.21	9,759.07	37.25	38.97	174.30	-1,515.82	1,709.28	880.87	837.24	43.63	20.191	
10,000.00	8,887.48	10,499.91	9,771.03	37.74	39.54	174.76	-1,608.43	1,791.92	889.80	846.19	43.61	20.402	
10,100.00	8,887.48	10,601.09	9,779.81	38.24	40.02	175.07	-1,684.17	1,858.42	898.10	853.78	44.32	20.265	
10,133.80	8,887.48	10,637.73	9,782.89	38.41	40.20	175.16	-1,711.79	1,882.30	900.84	856.34	44.51	20.241	
10,200.00	8,887.48	10,713.94	9,788.74	38.76	40.57	175.24	-1,769.93	1,931.23	905.75	860.97	44.78	20.227	
10,300.00	8,887.48	10,864.50	9,794.75	39.29	41.32	175.51	-1,887.52	2,025.02	909.49	865.05	44.43	20.469	
10,400.00	8,887.48	10,973.07	9,794.93	39.83	41.86	175.84	-1,973.66	2,091.10	909.25	864.16	45.09	20.167	
10,459.21	8,887.48	11,027.15	9,794.98	40.15	42.14	176.01	-2,017.46	2,122.82	909.10	863.39	45.70	19.891	
10,500.00	8,887.48	11,063.78	9,795.13	40.37	42.33	176.09	-2,047.79	2,143.34	909.17	863.02	46.15	19.699	
10,600.00	8,887.48	11,156.09	9,795.87	40.92	42.80	176.17	-2,126.44	2,191.64	909.86	862.60	47.26	19.251	
10,700.00	8,887.48	11,255.85	9,796.79	41.47	43.32	176.15	-2,214.00	2,239.43	910.79	862.51	48.28	18.863	
10,800.00	8,887.47	11,355.82	9,797.32	42.02	43.83	176.04	-2,304.06	2,282.76	911.44	862.08	49.36	18.464	
10,900.00	8,887.47	11,447.06	9,797.96	42.56	44.29	175.87	-2,387.92	2,318.70	912.33	861.69	50.64	18.016	
11,000.00	8,887.47	11,556.79	9,798.65	43.11	44.86	175.91	-2,488.89	2,361.65	912.91	861.35	51.56	17.706	
11,100.00	8,887.47	11,654.66	9,798.89	43.65	45.38	176.17	-2,578.93	2,400.03	912.86	860.24	52.62	17.347	
11,200.00	8,887.46	11,754.59	9,799.21	44.18	45.91	176.66	-2,670.80	2,439.32	912.70	859.10	53.60	17.028	
11,300.00	8,887.46	11,853.24	9,799.43	44.71	46.45	177.23	-2,762.34	2,476.08	912.43	857.84	54.59	16.714	
11,397.46	8,887.46	11,947.54	9,799.65	45.21	46.95	177.72	-2,851.28	2,507.40	912.31	856.69	55.62	16.401	
11,400.00	8,887.46	11,949.99	9,799.66	45.22	46.96	177.73	-2,853.61	2,508.16	912.31	856.66	55.65	16.393	
11,500.00	8,887.45	12,047.00	9,800.06	45.73	47.48	178.19	-2,946.36	2,536.58	912.46	855.73	56.74	16.083	
11,600.00	8,887.45	12,146.98	9,800.50	46.23	47.99	178.62	-3,043.09	2,561.80	912.72	854.91	57.81	15.789	
11,700.00	8,887.45	12,245.37	9,800.69	46.72	48.49	178.88	-3,139.61	2,580.87	912.82	853.85	58.97	15.480	
11,800.00	8,887.44	12,344.69	9,801.24	47.20	48.97	179.13	-3,237.68	2,596.46	913.31	853.17	60.14	15.187	
11,900.00	8,887.44	12,449.62	9,801.23	47.67	49.47	179.30	-3,342.01	2,607.61	913.26	851.97	61.29	14.901	
12,000.00	8,887.43	12,547.81	9,800.96	48.13	49.92	179.43	-3,439.96	2,614.32	912.97	850.44	62.53	14.600	
12,024.41	8,887.43	12,571.12	9,800.95	48.24	50.03	179.46	-3,463.26	2,615.31	912.96	850.11	62.85	14.526	
12,078.43	8,887.43	12,621.43	9,801.05	48.48	50.26	179.53	-3,513.53	2,617.05	913.06	849.51	63.55	14.367	
12,100.00	8,887.43	12,641.40	9,801.15	48.57	50.35	179.57	-3,533.49	2,617.77	913.16	849.33	63.83	14.306	
12,200.00	8,887.42	12,746.48	9,801.71	49.01	50.82	179.78	-3,638.51	2,621.17	913.70	848.68	65.01	14.054	
12,255.82	8,887.42	12,802.47	9,801.64	49.27	51.08	179.83	-3,694.49	2,622.16	913.63	847.91	65.72	13.901	
12,300.00	8,887.42	12,843.89	9,801.71	49.47	51.27	179.85	-3,735.91	2,622.55	913.70	847.38	66.32	13.777	
12,400.00	8,887.41	12,945.61	9,802.00	49.92	51.73	179.87	-3,837.62	2,623.11	913.99	846.37	67.62	13.516	
12,500.00	8,887.41	13,037.57	9,802.44	50.39	52.16	179.89	-3,929.58	2,623.57	914.48	845.46	69.02	13.250	
12,600.00	8,887.40	13,143.28	9,803.26	50.86	52.65	179.89	-4,035.29	2,623.77	915.27	844.95	70.32	13.017	
12,700.00	8,887.40	13,239.28	9,803.83	51.34	53.11	179.90	-4,131.28	2,624.16	915.86	844.16	71.70	12.774	
12,800.00	8,887.39	13,339.67	9,804.60	51.82	53.59	179.91	-4,231.67	2,624.51	916.63	843.58	73.05	12.547	
12,900.00	8,887.39	13,439.13	9,805.46	52.31	54.08	179.92	-4,331.13	2,624.81	917.51	843.08	74.43	12.328	
13,000.00	8,887.38	13,540.98	9,805.88	52.81	54.58	179.94	-4,432.98	2,625.33	917.92	842.14	75.78	12.112	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
13,100.00	8,887.37	13,630.36	9,807.24	53.31	55.03	179.94	-4,522.34	2,625.41	919.41	842.15	77.25	11.901	
13,200.00	8,887.37	13,742.05	9,808.26	53.82	55.59	179.94	-4,634.03	2,625.63	920.30	841.74	78.56	11.715	
13,300.00	8,887.36	13,842.81	9,808.73	54.34	56.11	179.95	-4,734.79	2,625.97	920.78	840.83	79.95	11.517	
13,400.00	8,887.36	13,945.05	9,809.05	54.86	56.64	179.97	-4,837.03	2,626.57	921.10	839.77	81.33	11.326	
13,500.00	8,887.35	14,057.54	9,808.66	55.38	57.23	180.00	-4,949.51	2,627.19	920.77	838.14	82.63	11.143	
13,565.61	8,887.35	14,112.47	9,808.18	55.73	57.52	-179.98	-5,004.44	2,627.57	920.23	836.59	83.64	11.003	
13,600.00	8,887.35	14,138.60	9,808.29	55.91	57.66	-179.97	-5,030.57	2,627.85	920.38	836.20	84.18	10.934	
13,700.00	8,887.34	14,243.93	9,809.48	56.45	58.22	-179.91	-5,135.88	2,628.95	921.54	836.00	85.54	10.773	
13,800.00	8,887.34	14,351.56	9,809.25	56.99	58.80	-179.89	-5,243.51	2,629.61	921.33	834.43	86.90	10.602	
13,900.00	8,887.33	14,460.22	9,808.07	57.54	59.40	-179.84	-5,352.16	2,630.50	920.24	831.99	88.25	10.427	
14,000.00	8,887.33	14,557.38	9,806.79	58.09	59.93	-179.81	-5,449.31	2,631.13	918.93	829.23	89.70	10.245	
14,100.00	8,887.32	14,655.16	9,805.80	58.64	60.48	-179.78	-5,547.08	2,631.86	917.92	826.78	91.14	10.071	
14,200.00	8,887.32	14,756.72	9,804.83	59.20	61.04	-179.76	-5,648.64	2,632.37	916.98	824.41	92.57	9.906	
14,300.00	8,887.31	14,854.84	9,803.62	59.77	61.59	-179.75	-5,746.75	2,632.63	915.75	821.72	94.03	9.739	
14,400.00	8,887.31	14,951.81	9,803.30	60.34	62.14	-179.74	-5,843.71	2,633.01	915.41	819.91	95.50	9.585	
14,500.00	8,887.30	15,060.62	9,801.89	60.91	62.76	-179.74	-5,952.51	2,633.18	914.10	817.21	96.89	9.434	
14,600.00	8,887.30	15,153.30	9,800.70	61.49	63.30	-179.72	-6,045.19	2,633.65	912.84	814.44	98.40	9.277	
14,655.44	8,887.29	15,202.21	9,800.52	61.81	63.58	-179.71	-6,094.09	2,633.94	912.64	813.39	99.25	9.195	
14,700.00	8,887.29	15,241.88	9,800.62	62.07	63.81	-179.70	-6,133.76	2,634.17	912.76	812.83	99.93	9.134	
14,800.00	8,887.29	15,346.40	9,801.36	62.65	64.42	-179.68	-6,238.28	2,634.69	913.49	812.13	101.36	9.012	
14,900.00	8,887.28	15,451.38	9,800.86	63.24	65.03	-179.66	-6,343.26	2,635.17	913.00	810.21	102.79	8.882	
15,000.00	8,887.28	15,560.27	9,799.91	63.83	65.67	-179.66	-6,452.15	2,635.48	912.15	807.95	104.20	8.754	
15,100.00	8,887.27	15,649.72	9,799.00	64.43	66.20	-179.65	-6,541.59	2,635.81	911.15	805.41	105.74	8.617	
15,200.00	8,887.27	15,754.41	9,798.51	65.03	66.83	-179.62	-6,646.27	2,636.41	910.70	803.52	107.18	8.497	
15,300.00	8,887.26	15,849.00	9,798.11	65.63	67.40	-179.61	-6,740.86	2,636.74	910.27	801.58	108.69	8.375	
15,400.00	8,887.25	15,951.91	9,797.74	66.24	68.02	-179.57	-6,843.76	2,637.57	909.93	799.79	110.14	8.262	
15,452.36	8,887.25	15,999.15	9,797.61	66.56	68.30	-179.56	-6,891.01	2,637.89	909.78	798.84	110.95	8.200	
15,500.00	8,887.25	16,042.82	9,797.71	66.85	68.57	-179.56	-6,934.67	2,637.89	909.90	798.22	111.68	8.147	
15,600.00	8,887.24	16,144.02	9,798.14	67.46	69.18	-179.58	-7,035.87	2,637.75	910.32	797.15	113.17	8.044	
15,700.00	8,887.24	16,249.34	9,798.03	68.07	69.82	-179.60	-7,141.19	2,637.61	910.22	795.58	114.63	7.940	
15,800.00	8,887.23	16,348.30	9,797.88	68.69	70.43	-179.62	-7,240.15	2,637.50	910.07	793.93	116.14	7.836	
15,900.00	8,887.23	16,451.06	9,797.52	69.31	71.06	-179.67	-7,342.91	2,637.01	909.72	792.08	117.63	7.734	
16,000.00	8,887.22	16,550.11	9,797.04	69.94	71.67	-179.70	-7,441.96	2,636.57	909.24	790.09	119.15	7.631	
16,100.00	8,887.22	16,649.29	9,796.80	70.56	72.29	-179.71	-7,541.14	2,636.64	908.99	788.34	120.66	7.534	
16,200.00	8,887.21	16,748.67	9,796.50	71.19	72.91	-179.73	-7,640.52	2,636.54	908.69	786.53	122.17	7.438	
16,300.00	8,887.21	16,847.52	9,796.38	71.83	73.52	-179.76	-7,739.37	2,636.24	908.58	784.89	123.69	7.346	
16,400.00	8,887.20	16,948.94	9,796.25	72.46	74.16	-179.80	-7,840.79	2,635.88	908.45	783.26	125.19	7.256	
16,500.00	8,887.20	17,054.76	9,795.70	73.10	74.83	-179.83	-7,946.60	2,635.53	907.94	781.27	126.68	7.167	
16,600.00	8,887.19	17,147.83	9,795.16	73.74	75.42	-179.86	-8,039.67	2,635.24	907.37	779.13	128.24	7.076	
16,700.00	8,887.19	17,257.93	9,794.54	74.38	76.12	-179.89	-8,149.77	2,634.88	906.83	777.13	129.70	6.992	
16,800.00	8,887.18	17,357.78	9,793.31	75.02	76.75	-179.92	-8,249.61	2,634.60	905.60	774.38	131.22	6.902	
16,900.00	8,887.18	17,453.38	9,792.44	75.67	77.37	-179.95	-8,345.20	2,634.35	904.69	771.92	132.77	6.814	
17,000.00	8,887.17	17,555.78	9,791.53	76.32	78.03	-179.97	-8,447.60	2,634.22	903.80	769.53	134.27	6.731	
17,100.00	8,887.17	17,657.76	9,790.48	76.97	78.68	-179.98	-8,549.58	2,634.28	902.78	767.00	135.77	6.649	
17,200.00	8,887.16	17,761.17	9,788.92	77.62	79.36	-180.00	-8,652.98	2,634.19	901.28	764.00	137.27	6.566	
17,300.00	8,887.16	17,857.48	9,787.50	78.28	79.98	179.98	-8,749.27	2,634.06	899.81	760.99	138.82	6.482	
17,400.00	8,887.15	17,948.06	9,786.83	78.93	80.57	179.97	-8,839.85	2,634.00	899.08	758.68	140.40	6.404	
17,409.63	8,887.15	17,956.49	9,786.82	79.00	80.63	179.97	-8,848.28	2,634.01	899.07	758.52	140.55	6.397	
17,500.00	8,887.14	18,042.92	9,787.21	79.59	81.19	179.98	-8,934.71	2,634.32	899.47	757.53	141.94	6.337	
17,600.00	8,887.14	18,141.15	9,787.53	80.25	81.84	179.97	-9,032.94	2,634.39	899.81	756.34	143.47	6.272	
17,700.00	8,887.13	18,243.09	9,788.36	80.91	82.51	179.95	-9,134.88	2,634.21	900.64	755.65	144.99	6.212	
17,800.00	8,887.13	18,356.16	9,788.01	81.58	83.25	179.92	-9,247.94	2,633.94	900.33	753.88	146.45	6.148	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
17,900.00	8,887.12	18,452.51	9,787.05	82.24	83.89	179.91	-9,344.28	2,634.06	899.34	751.34	148.00	6.077	
18,000.00	8,887.12	18,557.49	9,786.21	82.91	84.59	179.90	-9,449.27	2,634.06	898.56	749.06	149.50	6.011	
18,100.00	8,887.11	18,654.12	9,785.22	83.58	85.23	179.89	-9,545.89	2,634.15	897.54	746.50	151.04	5.942	
18,179.62	8,887.11	18,726.51	9,784.92	84.12	85.71	179.91	-9,618.28	2,634.50	897.22	744.92	152.29	5.891	
18,200.00	8,887.11	18,745.01	9,784.94	84.25	85.84	179.91	-9,636.78	2,634.66	897.24	744.63	152.61	5.879	
18,300.00	8,887.10	18,853.25	9,784.63	84.92	86.56	179.97	-9,745.01	2,635.71	896.95	742.88	154.07	5.822	
18,400.00	8,887.10	18,948.69	9,784.26	85.60	87.21	-179.98	-9,840.45	2,636.75	896.57	740.97	155.60	5.762	
18,500.00	8,887.09	19,051.63	9,783.72	86.27	87.90	-179.91	-9,943.37	2,637.94	896.04	738.95	157.09	5.704	
18,549.96	8,887.09	19,096.87	9,783.60	86.61	88.21	-179.88	-9,988.61	2,638.48	895.91	738.04	157.87	5.675	
18,600.00	8,887.09	19,140.66	9,783.72	86.95	88.50	-179.85	-10,032.40	2,639.02	896.06	737.41	158.65	5.648	
18,700.00	8,887.08	19,227.54	9,785.14	87.63	89.09	-179.80	-10,119.27	2,640.10	897.67	737.47	160.20	5.603	
18,800.00	8,887.08	19,341.44	9,786.27	88.31	89.87	-179.71	-10,233.15	2,641.71	898.62	736.97	161.65	5.559	
18,900.00	8,887.07	19,443.04	9,787.22	88.99	90.56	-179.64	-10,334.73	2,643.04	899.57	736.43	163.15	5.514	
18,972.77	8,887.07	19,516.20	9,787.04	89.49	91.06	-179.58	-10,407.88	2,644.04	899.40	735.16	164.24	5.476	
19,000.00	8,887.07	19,532.84	9,787.20	89.67	91.18	-179.57	-10,424.52	2,644.24	899.67	734.97	164.69	5.463	
19,100.00	8,887.06	19,600.95	9,789.84	90.36	91.64	-179.54	-10,492.57	2,644.90	903.38	737.14	166.24	5.434	
19,200.00	8,887.06	19,764.36	9,790.67	91.04	92.76	-179.50	-10,655.92	2,645.78	903.21	735.65	167.56	5.390	
19,300.00	8,887.05	19,866.26	9,788.80	91.73	93.45	-179.57	-10,757.79	2,644.82	901.38	732.26	169.11	5.330	
19,400.00	8,887.05	19,965.87	9,786.68	92.42	94.12	-179.80	-10,857.32	2,641.43	899.23	728.49	170.74	5.267	
19,500.00	8,887.04	20,068.56	9,784.41	93.11	94.82	-179.97	-10,959.95	2,638.92	897.02	724.70	172.32	5.206	
19,600.00	8,887.04	20,161.00	9,782.08	93.80	95.45	179.91	-11,052.35	2,637.22	894.55	720.59	173.96	5.142	
19,700.00	8,887.03	20,255.00	9,780.66	94.49	96.09	179.91	-11,146.33	2,637.38	893.06	717.53	175.54	5.088	
19,800.00	8,887.02	20,351.68	9,780.25	95.18	96.76	179.92	-11,243.01	2,637.72	892.64	715.55	177.09	5.041	
19,900.00	8,887.02	20,453.18	9,779.63	95.87	97.45	179.80	-11,344.49	2,636.08	892.03	713.37	178.66	4.993	
20,000.00	8,887.01	20,549.93	9,779.17	96.57	98.11	179.61	-11,441.20	2,633.39	891.58	711.29	180.29	4.945	
20,032.58	8,887.01	20,580.00	9,779.07	96.79	98.31	179.54	-11,471.25	2,632.34	891.49	710.66	180.83	4.930	
20,100.00	8,887.01	20,580.00	9,779.07	97.26	98.31	179.54	-11,471.25	2,632.34	894.03	712.27	181.77	4.919	
20,200.00	8,887.00	20,580.00	9,779.07	97.96	98.31	179.54	-11,471.25	2,632.34	907.07	725.35	181.72	4.992	
20,266.44	8,887.00	20,580.00	9,779.07	98.42	98.31	179.54	-11,471.25	2,632.34	921.65	740.84	180.81	5.097	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 198-MWD+IFR1+MS

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	1.00	0.00	0.50	46.09	58.83	61.12	84.83				
100.00	100.00	100.70	100.70	0.28	0.52	46.24	58.80	61.40	85.01	84.21	0.80	106.131	
200.00	200.00	200.40	200.40	0.63	0.60	46.67	58.71	62.23	85.55	84.32	1.23	69.574	
300.00	300.00	300.63	300.62	0.99	0.84	46.97	58.78	62.95	86.13	84.29	1.84	46.883	
400.00	400.00	400.52	400.51	1.35	1.15	46.98	59.10	63.32	86.62	84.11	2.50	34.621	
500.00	500.00	500.03	500.02	1.71	1.48	47.09	59.51	64.03	87.42	84.23	3.19	27.411	
600.00	600.00	599.77	599.74	2.07	1.82	47.49	60.06	65.51	88.89	85.00	3.89	22.866	
700.00	700.00	701.09	701.06	2.43	2.16	47.33	60.74	65.89	89.61	85.02	4.59	19.525	
800.00	800.00	802.00	801.95	2.79	2.50	46.07	61.64	63.98	88.85	83.57	5.28	16.816	
900.00	900.00	902.64	902.55	3.14	2.83	44.51	62.43	61.36	87.55	81.58	5.98	14.648	
1,000.00	1,000.00	1,003.42	1,003.27	3.50	3.17	42.86	62.50	58.00	85.29	78.62	6.67	12.780	
1,100.00	1,100.00	1,103.76	1,103.54	3.86	3.52	41.14	62.00	54.17	82.37	75.00	7.37	11.172	
1,200.00	1,200.00	1,203.97	1,203.68	4.22	3.86	39.68	60.87	50.50	79.14	71.07	8.07	9.802	
1,300.00	1,299.98	1,304.11	1,303.73	4.56	4.20	-83.20	59.38	46.71	75.37	66.61	8.76	8.600	
1,400.00	1,399.84	1,404.02	1,403.54	4.90	4.55	-89.34	57.70	42.54	71.30	61.85	9.45	7.548	
1,500.00	1,499.45	1,503.06	1,502.49	5.24	4.90	-98.72	55.90	38.59	68.51	58.38	10.13	6.761	
1,528.95	1,528.23	1,531.43	1,530.84	5.34	5.00	-101.85	55.42	37.69	68.30	57.97	10.33	6.610	CC, ES
1,600.00	1,598.70	1,600.98	1,600.37	5.58	5.24	-109.85	54.62	36.29	69.63	58.81	10.82	6.434	SF
1,700.00	1,697.47	1,698.85	1,698.24	5.93	5.58	-121.01	54.41	35.79	76.20	64.69	11.51	6.620	
1,800.00	1,795.62	1,796.70	1,796.09	6.28	5.92	-131.25	54.90	36.00	88.11	75.91	12.20	7.223	
1,810.29	1,805.68	1,806.75	1,806.13	6.32	5.96	-132.36	54.97	36.03	89.63	77.36	12.27	7.304	
1,900.00	1,893.37	1,894.42	1,893.80	6.63	6.26	-139.75	55.66	36.38	104.03	91.14	12.89	8.072	
2,000.00	1,991.11	1,993.61	1,992.97	6.99	6.61	-145.46	56.40	37.91	121.06	107.48	13.58	8.914	
2,100.00	2,088.85	2,094.39	2,093.66	7.35	6.95	-149.00	56.28	42.13	136.93	122.65	14.28	9.590	
2,200.00	2,186.59	2,192.25	2,191.43	7.72	7.29	-151.75	55.86	46.32	152.89	137.92	14.97	10.211	
2,300.00	2,284.33	2,291.72	2,290.84	8.08	7.64	-154.36	54.81	49.76	169.07	153.39	15.67	10.787	
2,400.00	2,382.07	2,391.97	2,390.97	8.45	7.98	-156.46	53.05	53.99	184.53	168.15	16.38	11.266	
2,500.00	2,479.81	2,490.77	2,489.64	8.82	8.33	-158.05	51.29	58.91	199.70	182.62	17.08	11.689	
2,600.00	2,577.55	2,583.05	2,581.83	9.19	8.65	-159.56	49.69	62.34	215.88	198.11	17.76	12.152	
2,700.00	2,675.29	2,671.84	2,670.60	9.57	8.96	-161.57	48.97	60.94	236.28	217.87	18.40	12.838	
2,800.00	2,773.03	2,768.21	2,766.90	9.94	9.29	-163.63	49.19	57.23	259.22	240.13	19.10	13.575	
2,900.00	2,870.77	2,869.69	2,868.31	10.32	9.65	-165.49	48.82	53.54	281.90	262.07	19.83	14.218	
3,000.00	2,968.51	2,973.35	2,971.90	10.70	10.01	-167.27	46.08	51.02	302.41	281.84	20.57	14.701	
3,100.00	3,066.25	3,077.16	3,075.59	11.07	10.37	-169.01	41.44	48.99	321.64	300.32	21.31	15.092	
3,200.00	3,163.99	3,179.89	3,178.07	11.45	10.72	-170.75	34.55	47.74	339.12	317.08	22.04	15.383	
3,300.00	3,261.73	3,292.44	3,290.29	11.83	11.12	-172.34	26.04	48.84	354.70	331.89	22.81	15.550	
3,400.00	3,359.47	3,403.38	3,400.58	12.21	11.50	-173.74	15.04	53.59	366.39	342.83	23.55	15.556	
3,500.00	3,457.21	3,512.97	3,509.10	12.59	11.89	-175.17	1.50	60.50	375.19	350.90	24.28	15.450	
3,600.00	3,554.95	3,621.92	3,616.58	12.97	12.27	-176.65	-14.10	69.02	381.82	356.81	25.01	15.269	
3,700.00	3,652.69	3,729.04	3,721.66	13.35	12.65	-178.31	-32.45	78.87	385.92	360.20	25.73	15.002	
3,800.00	3,750.43	3,836.56	3,826.76	13.73	13.03	179.94	-52.37	89.67	388.89	362.44	26.44	14.706	
3,900.00	3,848.17	3,944.63	3,931.80	14.12	13.41	178.09	-74.31	102.47	389.66	362.50	27.16	14.349	
3,922.79	3,870.44	3,967.26	3,953.74	14.20	13.49	177.70	-79.08	105.34	389.63	362.30	27.33	14.258	
4,000.00	3,945.91	4,037.84	4,022.33	14.50	13.75	176.53	-93.28	113.97	390.33	362.40	27.93	13.976	
4,100.00	4,043.65	4,138.26	4,120.10	14.88	14.11	174.90	-113.03	125.57	392.34	363.66	28.68	13.682	
4,200.00	4,141.39	4,238.27	4,217.23	15.27	14.47	173.11	-134.00	136.95	394.27	364.84	29.43	13.397	
4,300.00	4,239.13	4,334.00	4,310.30	15.65	14.82	171.45	-153.71	147.55	397.01	366.81	30.20	13.148	
4,400.00	4,336.87	4,441.46	4,414.73	16.03	15.22	169.68	-175.58	160.30	399.45	368.52	30.94	12.912	
4,500.00	4,434.61	4,544.15	4,514.16	16.42	15.59	167.95	-197.42	173.81	400.68	368.99	31.69	12.643	
4,600.00	4,532.35	4,643.08	4,609.95	16.80	15.96	166.34	-218.26	187.15	402.00	369.54	32.46	12.385	
4,700.00	4,630.09	4,740.80	4,704.67	17.19	16.32	164.83	-238.30	200.37	403.76	370.52	33.23	12.150	
4,800.00	4,727.83	4,837.30	4,798.53	17.57	16.68	163.51	-256.87	212.98	406.59	372.59	34.00	11.957	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 198-MWD+IFR1+MS

Offset Well Error: 0.50 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
4,900.00	4,825.57	4,936.38	4,894.84	17.96	17.05	162.09	-276.45	225.52	409.92	375.15	34.77	11.789	
5,000.00	4,923.31	5,031.74	4,987.56	18.34	17.41	160.72	-295.38	237.26	413.85	378.30	35.54	11.643	
5,100.00	5,021.05	5,125.02	5,078.79	18.73	17.75	159.67	-311.78	247.65	419.59	383.28	36.31	11.557	
5,200.00	5,118.79	5,221.82	5,173.53	19.11	18.11	158.56	-329.05	257.50	426.40	389.34	37.07	11.504	
5,300.00	5,216.53	5,320.86	5,270.41	19.50	18.49	157.39	-347.21	267.05	433.84	396.01	37.83	11.468	
5,400.00	5,314.27	5,422.25	5,369.55	19.89	18.87	156.21	-365.94	277.15	441.12	402.51	38.60	11.427	
5,500.00	5,412.01	5,523.56	5,468.11	20.27	19.25	154.77	-387.04	287.38	448.18	408.80	39.38	11.381	
5,600.00	5,509.75	5,619.79	5,561.78	20.66	19.61	153.49	-406.70	297.27	455.36	415.22	40.14	11.344	
5,700.00	5,607.50	5,723.34	5,662.84	21.05	20.00	152.29	-426.81	307.54	463.22	422.29	40.92	11.319	
5,800.00	5,705.24	5,830.72	5,766.43	21.43	20.41	150.52	-452.21	319.82	469.54	427.82	41.72	11.254	
5,900.00	5,802.98	5,928.84	5,860.48	21.82	20.79	148.70	-477.51	331.84	475.41	432.91	42.50	11.185	
6,000.00	5,900.72	6,028.28	5,955.98	22.21	21.18	146.98	-502.45	343.90	481.88	438.59	43.29	11.132	
6,100.00	5,998.46	6,126.73	6,050.66	22.59	21.56	145.39	-526.60	355.89	488.68	444.61	44.07	11.089	
6,200.00	6,096.20	6,224.61	6,144.94	22.98	21.94	143.91	-550.12	367.65	495.98	451.14	44.85	11.060	
6,300.00	6,193.94	6,321.38	6,238.45	23.37	22.31	142.61	-572.40	378.82	503.98	458.36	45.61	11.049	
6,400.00	6,291.68	6,427.66	6,341.34	23.75	22.72	141.35	-595.71	391.62	511.60	465.18	46.42	11.022	
6,500.00	6,389.42	6,525.60	6,436.34	24.14	23.10	140.33	-616.09	404.01	518.68	471.49	47.19	10.991	
6,600.00	6,487.16	6,613.17	6,521.65	24.53	23.43	139.59	-633.33	413.57	527.43	479.52	47.91	11.009	
6,700.00	6,584.90	6,704.62	6,611.20	24.92	23.78	139.01	-650.09	421.50	538.25	489.62	48.63	11.068	
6,800.00	6,682.64	6,811.97	6,716.56	25.30	24.19	138.50	-668.40	430.85	548.87	499.42	49.44	11.101	
6,900.00	6,780.38	6,914.53	6,817.33	25.69	24.58	138.12	-684.77	440.65	558.50	508.27	50.23	11.119	
7,000.00	6,878.12	7,016.63	6,917.81	26.08	24.96	137.88	-699.97	450.49	567.85	516.85	51.01	11.133	
7,100.00	6,975.86	7,121.11	7,020.35	26.47	25.36	137.50	-716.60	461.69	576.37	524.57	51.80	11.127	
7,200.00	7,073.60	7,216.17	7,113.53	26.86	25.72	137.11	-732.21	472.23	584.66	532.11	52.55	11.127	
7,300.00	7,171.34	7,312.30	7,208.25	27.24	26.08	136.97	-745.91	481.20	594.21	540.91	53.29	11.150	
7,323.61	7,194.42	7,336.57	7,232.16	27.34	26.18	136.92	-749.42	483.50	596.45	542.97	53.48	11.153	
7,400.00	7,269.29	7,420.33	7,314.40	27.63	26.49	136.67	-762.63	492.18	602.50	548.40	54.10	11.137	
7,500.00	7,367.86	7,520.54	7,412.16	28.01	26.88	135.87	-781.09	504.20	607.24	552.37	54.87	11.067	
7,600.00	7,466.96	7,614.26	7,503.68	28.38	27.24	134.92	-798.19	514.84	610.24	554.64	55.60	10.976	
7,700.00	7,566.46	7,705.29	7,593.13	28.74	27.58	134.01	-812.71	523.56	612.12	555.83	56.29	10.875	
7,800.00	7,666.25	7,798.93	7,685.66	29.09	27.94	133.13	-825.18	530.60	613.02	556.05	56.98	10.759	
7,900.00	7,766.20	7,894.52	7,780.58	29.43	28.29	132.28	-834.95	536.17	612.43	554.77	57.66	10.621	
7,933.80	7,800.00	7,926.90	7,812.82	29.55	28.41	-107.85	-837.55	537.70	611.87	553.98	57.89	10.570	
8,000.00	7,866.20	7,989.98	7,875.71	29.76	28.63	-108.30	-841.75	540.17	610.77	552.46	58.31	10.474	
8,095.65	7,961.85	8,077.25	7,962.85	30.06	28.94	-108.72	-845.80	542.25	610.02	551.14	58.89	10.359	
8,100.00	7,966.20	8,081.15	7,966.75	30.07	28.96	-108.73	-845.93	542.30	610.02	551.11	58.91	10.355	
8,200.00	8,066.20	8,177.56	8,063.14	30.39	29.29	-108.93	-848.06	542.47	610.56	551.02	59.54	10.254	
8,300.00	8,166.20	8,282.70	8,168.28	30.71	29.64	-108.96	-848.45	542.20	610.93	550.69	60.24	10.142	
8,368.90	8,235.10	8,350.53	8,236.10	30.94	29.86	-108.94	-848.28	542.28	610.80	550.13	60.67	10.067	
8,400.00	8,266.20	8,380.49	8,266.07	31.04	29.96	-108.93	-848.19	542.22	610.83	549.97	60.86	10.036	
8,428.80	8,295.00	8,408.68	8,294.25	31.13	30.05	-108.92	-848.09	542.11	610.90	549.86	61.04	10.008	
8,450.00	8,316.20	8,429.61	8,315.18	31.20	30.11	110.10	-848.03	542.02	611.10	549.92	61.18	9.989	
8,500.00	8,366.02	8,478.80	8,364.38	31.38	30.27	110.32	-847.94	541.79	612.69	551.18	61.51	9.961	
8,550.00	8,415.30	8,525.52	8,411.09	31.56	30.42	110.70	-847.91	541.48	615.97	554.15	61.82	9.964	
8,600.00	8,463.67	8,571.02	8,456.59	31.75	30.57	111.22	-847.94	540.98	621.17	559.03	62.13	9.997	
8,650.00	8,510.75	8,612.17	8,497.73	31.95	30.70	111.73	-848.01	540.26	628.55	566.14	62.41	10.071	
8,700.00	8,556.19	8,651.09	8,536.64	32.16	30.83	112.19	-848.11	539.19	638.46	575.79	62.67	10.187	
8,750.00	8,599.64	8,693.95	8,579.47	32.37	30.97	112.82	-848.25	537.68	650.99	588.01	62.99	10.336	
8,800.00	8,640.77	8,742.76	8,628.27	32.58	31.13	113.74	-848.30	536.38	665.65	602.27	63.38	10.503	
8,850.00	8,679.28	8,787.65	8,673.14	32.80	31.27	114.47	-848.26	535.69	682.56	618.82	63.74	10.708	
8,900.00	8,714.85	8,828.70	8,714.19	33.02	31.41	114.89	-848.48	535.45	702.02	637.94	64.08	10.955	
8,950.00	8,747.24	8,866.99	8,752.48	33.24	31.54	114.99	-848.97	535.54	724.16	659.76	64.40	11.245	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 198-MWD+IFR1+MS **Offset Well Error:** 0.50 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
9,000.00	8,776.18	8,894.01	8,779.50	33.45	31.64	114.13	-849.41	535.65	749.19	684.58	64.61	11.595	
9,050.00	8,801.45	8,918.54	8,804.02	33.67	31.72	112.77	-849.84	535.70	777.16	712.35	64.81	11.992	
9,100.00	8,822.88	8,939.43	8,824.92	33.88	31.79	110.73	-850.22	535.71	807.89	742.91	64.97	12.434	
9,150.00	8,840.29	8,957.00	8,842.48	34.09	31.86	107.96	-850.57	535.69	841.15	776.04	65.11	12.919	
9,178.80	8,848.43	8,965.22	8,850.70	34.21	31.88	105.95	-850.73	535.67	861.34	796.17	65.17	13.217	
9,200.00	8,853.73	8,970.94	8,856.41	34.30	31.90	105.40	-850.85	535.66	876.60	811.39	65.21	13.442	
9,300.00	8,873.56	8,992.72	8,878.19	34.70	31.98	101.75	-851.29	535.64	952.16	886.80	65.37	14.566	
9,400.00	8,884.77	9,005.79	8,891.26	35.10	32.03	96.30	-851.56	535.63	1,032.60	967.15	65.45	15.777	
9,478.80	8,887.48	9,009.85	8,895.32	35.42	32.04	90.67	-851.65	535.62	1,098.56	1,033.10	65.47	16.780	
9,500.00	8,887.48	9,010.20	8,895.67	35.50	32.04	90.71	-851.66	535.62	1,116.61	1,051.15	65.47	17.056	
9,600.00	8,887.48	9,011.84	8,897.30	35.91	32.05	90.87	-851.69	535.62	1,203.13	1,137.67	65.46	18.378	
9,700.00	8,887.48	9,013.48	8,898.95	36.33	32.05	91.03	-851.73	535.62	1,291.59	1,226.13	65.46	19.730	
9,800.00	8,887.48	9,015.14	8,900.60	36.78	32.06	91.20	-851.76	535.62	1,381.63	1,316.16	65.47	21.105	
9,900.00	8,887.48	9,016.80	8,902.27	37.25	32.06	91.36	-851.80	535.62	1,472.95	1,407.48	65.47	22.498	
10,000.00	8,887.48	9,018.47	8,903.94	37.74	32.07	91.52	-851.83	535.62	1,565.33	1,499.85	65.48	23.906	
10,100.00	8,887.48	9,020.16	8,905.62	38.24	32.08	91.69	-851.87	535.62	1,658.59	1,593.10	65.49	25.326	
10,133.80	8,887.48	9,020.73	8,906.19	38.41	32.08	91.75	-851.88	535.62	1,690.29	1,624.79	65.49	25.809	
10,200.00	8,887.48	10,742.53	9,965.74	38.76	38.09	134.42	-1,789.65	652.17	1,746.83	1,678.83	68.00	25.688	
10,300.00	8,887.48	10,811.24	9,965.27	39.29	38.30	132.64	-1,858.35	652.32	1,793.75	1,724.60	69.15	25.940	
10,400.00	8,887.48	10,897.30	9,963.58	39.83	38.58	130.75	-1,944.40	651.62	1,839.16	1,768.82	70.34	26.147	
10,500.00	8,887.48	10,978.07	9,962.10	40.37	38.84	129.12	-2,025.15	651.03	1,882.84	1,811.38	71.46	26.347	
10,600.00	8,887.48	11,067.91	9,961.40	40.92	39.15	127.59	-2,114.99	651.06	1,924.58	1,851.99	72.59	26.514	
10,700.00	8,887.48	11,139.01	9,960.70	41.47	39.40	126.39	-2,186.08	650.75	1,964.45	1,890.86	73.59	26.696	
10,800.00	8,887.47	11,234.48	9,958.99	42.02	39.74	125.06	-2,281.52	649.22	2,002.59	1,927.87	74.71	26.804	
10,900.00	8,887.47	11,332.75	9,957.91	42.56	40.10	123.90	-2,379.78	648.89	2,037.72	1,961.89	75.83	26.873	
11,000.00	8,887.47	11,421.56	9,956.85	43.11	40.44	122.93	-2,468.59	648.59	2,070.33	1,993.46	76.87	26.932	
11,100.00	8,887.47	11,525.28	9,955.35	43.65	40.84	121.98	-2,572.29	648.11	2,100.36	2,022.35	78.01	26.925	
11,200.00	8,887.46	11,612.78	9,954.65	44.18	41.19	121.26	-2,659.79	648.32	2,127.43	2,048.41	79.01	26.924	
11,300.00	8,887.46	11,692.76	9,954.95	44.71	41.51	120.68	-2,739.78	648.49	2,152.31	2,072.37	79.95	26.922	
11,400.00	8,887.46	11,773.73	9,955.03	45.22	41.85	120.15	-2,820.74	647.80	2,175.11	2,094.24	80.88	26.895	
11,500.00	8,887.45	11,880.23	9,952.91	45.73	42.30	119.55	-2,927.18	645.15	2,195.47	2,113.46	82.02	26.769	
11,600.00	8,887.45	11,977.61	9,951.70	46.23	42.72	119.11	-3,024.54	643.99	2,212.14	2,129.07	83.07	26.631	
11,700.00	8,887.45	12,076.40	9,951.84	46.72	43.16	118.78	-3,123.33	643.04	2,226.27	2,142.16	84.12	26.467	
11,800.00	8,887.44	12,180.31	9,952.91	47.20	43.63	118.55	-3,227.23	642.93	2,237.07	2,151.88	85.20	26.257	
11,900.00	8,887.44	12,290.45	9,954.34	47.67	44.13	118.40	-3,337.37	643.29	2,244.58	2,158.25	86.33	26.000	
12,000.00	8,887.43	12,365.40	9,955.18	48.13	44.49	118.33	-3,412.31	643.26	2,249.28	2,162.12	87.15	25.808	
12,078.43	8,887.43	12,556.34	9,953.44	48.48	45.41	118.28	-3,603.19	644.87	2,249.60	2,160.62	88.98	25.282	
12,100.00	8,887.43	12,565.22	9,952.82	48.57	45.45	118.27	-3,612.05	645.05	2,248.74	2,159.63	89.10	25.238	
12,200.00	8,887.42	12,636.74	9,949.81	49.01	45.81	118.21	-3,683.49	645.99	2,245.90	2,155.96	89.93	24.973	
12,300.00	8,887.42	12,718.78	9,948.20	49.47	46.22	118.17	-3,765.51	646.15	2,244.87	2,154.02	90.85	24.708	
12,400.00	8,887.41	12,811.41	9,947.60	49.92	46.68	118.17	-3,858.13	647.30	2,243.68	2,151.81	91.87	24.422	
12,446.28	8,887.41	12,843.74	9,947.66	50.14	46.85	118.17	-3,890.46	647.53	2,243.50	2,151.25	92.25	24.321	
12,500.00	8,887.41	12,885.49	9,947.83	50.39	47.06	118.18	-3,932.21	647.59	2,243.62	2,150.90	92.72	24.198	
12,600.00	8,887.40	12,967.94	9,947.33	50.86	47.48	118.15	-4,014.65	646.72	2,244.44	2,150.78	93.66	23.964	
12,700.00	8,887.40	13,049.00	9,945.86	51.34	47.90	118.09	-4,095.67	644.43	2,246.21	2,151.61	94.60	23.745	
12,800.00	8,887.39	13,186.43	9,944.00	51.82	48.62	118.03	-4,233.07	642.90	2,246.45	2,150.33	96.12	23.371	
12,900.00	8,887.39	13,280.89	9,943.00	52.31	49.12	117.99	-4,327.50	641.35	2,247.54	2,150.33	97.21	23.119	
13,000.00	8,887.38	13,425.69	9,943.57	52.81	49.90	118.01	-4,472.29	642.87	2,246.86	2,148.04	98.82	22.738	
13,100.00	8,887.37	13,519.95	9,943.61	53.31	50.42	118.03	-4,566.54	644.33	2,245.67	2,145.75	99.92	22.474	
13,200.00	8,887.37	13,631.84	9,943.63	53.82	51.04	118.05	-4,678.41	646.20	2,244.38	2,143.17	101.22	22.174	
13,300.00	8,887.36	13,736.19	9,944.20	54.34	51.62	118.09	-4,782.73	649.01	2,242.42	2,139.98	102.44	21.890	
13,400.00	8,887.36	13,933.19	9,946.11	54.86	52.75	118.24	-4,979.48	657.59	2,239.93	2,135.36	104.57	21.421	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 198-MWD+IFR1+MS

Offset Well Error: 0.50 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
13,500.00	8,887.35	14,013.90	9,946.01	55.38	53.22	118.30	-5,059.99	663.42	2,233.78	2,128.19	105.59	21.156	
13,600.00	8,887.35	14,080.00	9,946.19	55.91	53.60	118.34	-5,126.02	666.30	2,229.91	2,123.44	106.47	20.945	
13,700.00	8,887.34	14,109.35	9,946.23	56.45	53.77	118.35	-5,155.37	666.78	2,228.02	2,121.07	106.95	20.832	
13,726.88	8,887.34	14,123.21	9,946.14	56.60	53.85	118.35	-5,169.22	666.81	2,227.94	2,120.80	107.14	20.794	
13,800.00	8,887.34	14,174.00	9,945.28	56.99	54.15	118.31	-5,219.99	665.82	2,228.60	2,120.81	107.80	20.674	
13,900.00	8,887.33	14,284.24	9,945.41	57.54	54.79	118.30	-5,330.20	664.41	2,230.01	2,120.85	109.15	20.430	
14,000.00	8,887.33	14,382.56	9,946.83	58.09	55.37	118.33	-5,428.51	664.73	2,230.57	2,120.20	110.37	20.209	
14,100.00	8,887.32	14,471.41	9,947.92	58.64	55.90	118.35	-5,517.36	664.46	2,231.58	2,120.08	111.49	20.015	
14,200.00	8,887.32	14,582.25	9,949.10	59.20	56.56	118.38	-5,628.19	664.59	2,232.11	2,119.24	112.87	19.776	
14,300.00	8,887.31	14,683.66	9,949.57	59.77	57.17	118.37	-5,729.59	663.86	2,233.14	2,118.99	114.15	19.563	
14,378.81	8,887.31	14,775.23	9,948.69	60.22	57.73	118.35	-5,821.16	663.66	2,233.02	2,117.71	115.31	19.366	
14,400.00	8,887.31	14,791.61	9,948.56	60.34	57.82	118.35	-5,837.54	663.59	2,233.04	2,117.52	115.52	19.330	
14,500.00	8,887.30	14,884.84	9,948.41	60.91	58.39	118.34	-5,930.77	663.11	2,233.58	2,116.86	116.72	19.136	
14,600.00	8,887.30	14,990.85	9,949.14	61.49	59.04	118.35	-6,036.77	663.26	2,233.95	2,115.87	118.08	18.920	
14,700.00	8,887.29	15,093.92	9,948.93	62.07	59.68	118.34	-6,139.84	663.14	2,234.12	2,114.72	119.40	18.711	
14,800.00	8,887.29	15,232.97	9,947.43	62.65	60.54	118.32	-6,278.87	664.39	2,232.84	2,111.68	121.16	18.429	
14,900.00	8,887.28	15,300.00	9,946.66	63.24	60.96	118.31	-6,345.89	664.65	2,232.06	2,109.98	122.08	18.283	
14,904.39	8,887.28	15,300.00	9,946.66	63.27	60.96	118.31	-6,345.89	664.65	2,232.06	2,109.97	122.09	18.282	
15,000.00	8,887.28	15,381.74	9,946.82	63.83	61.47	118.31	-6,427.64	664.50	2,232.45	2,109.28	123.17	18.125	
15,100.00	8,887.27	15,456.45	9,946.27	64.43	61.94	118.28	-6,502.32	663.35	2,233.64	2,109.46	124.17	17.988	
15,200.00	8,887.27	15,525.11	9,943.22	65.03	62.37	118.17	-6,570.83	659.95	2,236.10	2,111.00	125.10	17.874	
15,300.00	8,887.26	15,684.03	9,939.57	65.63	63.37	118.00	-6,729.48	652.97	2,239.69	2,112.50	127.19	17.609	
15,396.50	8,887.25	15,793.43	9,939.33	66.22	64.07	117.99	-6,838.88	653.32	2,239.42	2,110.79	128.63	17.410	
15,400.00	8,887.25	15,795.32	9,939.33	66.24	64.08	117.99	-6,840.77	653.32	2,239.42	2,110.76	128.66	17.406	
15,500.00	8,887.25	15,957.00	9,943.53	66.85	65.13	118.13	-7,002.30	657.38	2,238.89	2,108.19	130.70	17.130	
15,600.00	8,887.24	16,017.78	9,945.11	67.46	65.52	118.20	-7,062.99	660.06	2,236.66	2,105.08	131.58	16.999	
15,653.85	8,887.24	16,051.00	9,945.12	67.79	65.74	118.20	-7,096.21	660.16	2,236.55	2,104.49	132.05	16.937	
15,700.00	8,887.24	16,079.93	9,944.94	68.07	65.92	118.19	-7,125.13	659.86	2,236.84	2,104.38	132.46	16.887	
15,800.00	8,887.23	16,176.53	9,945.12	68.69	66.55	118.19	-7,221.74	659.31	2,237.60	2,103.84	133.76	16.728	
15,900.00	8,887.23	16,355.45	9,946.04	69.31	67.71	118.22	-7,400.62	660.69	2,237.78	2,101.72	136.06	16.447	
16,000.00	8,887.22	16,427.00	9,946.02	69.94	68.18	118.24	-7,472.14	662.85	2,235.43	2,098.35	137.08	16.308	
16,081.30	8,887.22	16,478.33	9,945.94	70.45	68.52	118.25	-7,523.47	663.60	2,234.62	2,096.80	137.82	16.214	
16,100.00	8,887.22	16,487.47	9,945.91	70.56	68.58	118.25	-7,532.60	663.58	2,234.66	2,096.71	137.95	16.199	
16,200.00	8,887.21	16,593.81	9,944.99	71.19	69.28	118.21	-7,638.92	661.93	2,235.84	2,096.44	139.40	16.039	
16,300.00	8,887.21	16,675.97	9,942.78	71.83	69.82	118.14	-7,721.04	660.73	2,236.08	2,095.54	140.54	15.911	
16,400.00	8,887.20	16,786.55	9,939.65	72.46	70.55	118.03	-7,831.52	657.83	2,237.28	2,095.23	142.06	15.749	
16,500.00	8,887.20	16,896.00	9,939.13	73.10	71.28	118.02	-7,940.96	657.64	2,237.36	2,093.81	143.55	15.586	
16,600.00	8,887.19	16,990.00	9,937.38	73.74	71.90	117.96	-8,034.94	656.57	2,237.65	2,092.80	144.85	15.448	
16,700.00	8,887.19	17,106.67	9,936.30	74.38	72.68	117.93	-8,151.60	656.29	2,237.60	2,091.15	146.45	15.279	
16,759.39	8,887.18	17,156.83	9,936.32	74.76	73.01	117.93	-8,201.76	656.52	2,237.48	2,090.33	147.15	15.205	
16,800.00	8,887.18	17,193.26	9,936.58	75.02	73.26	117.94	-8,238.19	656.67	2,237.53	2,089.87	147.66	15.153	
16,900.00	8,887.18	17,292.33	9,937.61	75.67	73.92	117.97	-8,337.25	657.15	2,237.75	2,088.72	149.03	15.016	
17,000.00	8,887.17	17,391.59	9,938.40	76.32	74.59	117.99	-8,436.51	657.55	2,237.94	2,087.53	150.41	14.879	
17,100.00	8,887.17	17,490.73	9,939.98	76.97	75.26	118.03	-8,535.63	658.09	2,238.37	2,086.59	151.78	14.747	
17,159.75	8,887.16	17,565.88	9,939.99	77.36	75.77	118.03	-8,610.78	658.28	2,238.34	2,085.53	152.81	14.648	
17,200.00	8,887.16	17,584.71	9,939.96	77.62	75.90	118.03	-8,629.61	658.20	2,238.45	2,085.35	153.10	14.621	
17,300.00	8,887.16	17,647.00	9,940.31	78.28	76.32	118.03	-8,691.90	657.50	2,239.87	2,085.89	153.98	14.547	
17,400.00	8,887.15	17,805.23	9,941.74	78.93	77.40	118.06	-8,850.11	657.88	2,239.92	2,083.76	156.16	14.344	
17,457.92	8,887.15	17,855.41	9,941.68	79.31	77.74	118.06	-8,900.29	658.09	2,239.78	2,082.91	156.87	14.278	
17,500.00	8,887.14	17,887.30	9,942.00	79.59	77.96	118.07	-8,932.18	658.24	2,239.87	2,082.55	157.33	14.237	
17,600.00	8,887.14	17,999.86	9,946.36	80.25	78.74	118.18	-9,044.63	660.04	2,240.50	2,081.61	158.89	14.101	
17,700.00	8,887.13	18,130.76	9,953.49	80.91	79.65	118.41	-9,175.22	665.30	2,239.72	2,079.04	160.68	13.939	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 198-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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
17,800.00	8,887.13	18,252.06	9,955.11	81.58	80.49	118.49	-9,296.41	669.79	2,237.15	2,074.81	162.34	13.781	
17,900.00	8,887.12	18,325.49	9,954.68	82.24	80.99	118.50	-9,369.83	671.20	2,235.35	2,071.92	163.43	13.677	
18,000.00	8,887.12	18,404.34	9,955.38	82.91	81.54	118.53	-9,448.67	672.34	2,234.64	2,070.06	164.58	13.578	
18,100.00	8,887.11	18,517.55	9,954.92	83.58	82.32	118.53	-9,561.86	673.45	2,233.72	2,067.55	166.17	13.443	
18,166.21	8,887.11	18,564.25	9,954.44	84.03	82.65	118.52	-9,608.56	673.51	2,233.43	2,066.57	166.86	13.385	
18,200.00	8,887.11	18,587.00	9,954.34	84.25	82.80	118.51	-9,631.31	673.45	2,233.50	2,066.32	167.19	13.359	
18,300.00	8,887.10	18,673.33	9,954.08	84.92	83.40	118.50	-9,717.63	672.72	2,234.28	2,065.85	168.42	13.266	
18,400.00	8,887.10	18,794.46	9,954.82	85.60	84.24	118.51	-9,838.76	672.71	2,234.71	2,064.57	170.13	13.135	
18,500.00	8,887.09	18,868.00	9,955.21	86.27	84.75	118.52	-9,912.29	672.43	2,235.46	2,064.26	171.19	13.058	
18,600.00	8,887.09	18,962.00	9,955.69	86.95	85.40	118.51	-10,006.29	671.26	2,236.96	2,064.43	172.54	12.965	
18,700.00	8,887.08	19,110.37	9,955.43	87.63	86.43	118.49	-10,154.65	670.69	2,237.33	2,062.70	174.62	12.812	
18,800.00	8,887.08	19,198.49	9,954.13	88.31	87.05	118.46	-10,242.76	670.47	2,237.01	2,061.11	175.90	12.718	
18,802.88	8,887.08	19,200.96	9,954.09	88.33	87.07	118.46	-10,245.23	670.45	2,237.01	2,061.08	175.93	12.715	
18,900.00	8,887.07	19,289.33	9,952.69	88.99	87.68	118.42	-10,333.58	669.61	2,237.26	2,060.05	177.21	12.625	
19,000.00	8,887.07	19,373.75	9,951.88	89.67	88.27	118.39	-10,417.99	668.76	2,237.87	2,059.44	178.43	12.542	
19,100.00	8,887.06	19,478.69	9,951.06	90.36	89.01	118.34	-10,522.91	666.77	2,239.36	2,059.43	179.94	12.445	
19,200.00	8,887.06	19,608.45	9,951.78	91.04	89.92	118.36	-10,652.67	667.45	2,239.26	2,057.49	181.78	12.319	
19,300.00	8,887.05	19,706.00	9,951.10	91.73	90.61	118.35	-10,750.21	667.89	2,238.71	2,055.52	183.18	12.221	
19,336.34	8,887.05	19,734.48	9,950.67	91.98	90.81	118.34	-10,778.69	667.81	2,238.60	2,055.00	183.60	12.193	
19,400.00	8,887.05	19,776.79	9,949.40	92.42	91.10	118.30	-10,820.97	666.98	2,238.91	2,054.68	184.23	12.153	
19,500.00	8,887.04	19,854.34	9,946.70	93.11	91.65	118.20	-10,898.43	664.31	2,240.45	2,055.10	185.35	12.088	
19,600.00	8,887.04	19,953.32	9,947.01	93.80	92.34	118.18	-10,997.38	662.25	2,242.59	2,055.81	186.78	12.007	
19,700.00	8,887.03	20,100.17	9,944.74	94.49	93.38	118.10	-11,144.15	659.96	2,243.34	2,054.45	188.89	11.877	
19,706.33	8,887.03	20,104.73	9,944.54	94.53	93.41	118.10	-11,148.70	659.86	2,243.33	2,054.38	188.96	11.872	
19,800.00	8,887.02	20,172.39	9,942.69	95.18	93.89	118.04	-11,216.32	658.55	2,243.88	2,053.93	189.95	11.813	
19,900.00	8,887.02	20,272.36	9,941.32	95.87	94.60	117.98	-11,316.27	656.70	2,245.04	2,053.64	191.40	11.730	
20,000.00	8,887.01	20,305.00	9,940.88	96.57	94.83	117.96	-11,348.89	656.10	2,247.21	2,055.40	191.81	11.716	
20,100.00	8,887.01	20,305.00	9,940.88	97.26	94.83	117.96	-11,348.89	656.10	2,253.59	2,062.13	191.46	11.770	
20,200.00	8,887.00	20,305.00	9,940.88	97.96	94.83	117.96	-11,348.89	656.10	2,264.37	2,073.55	190.82	11.867	
20,266.44	8,887.00	20,305.00	9,940.88	98.42	94.83	117.96	-11,348.89	656.10	2,273.93	2,083.71	190.23	11.954	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 236-MWD+HRGM

Offset Well Error: 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	3.26	3.26	0.00	0.01	-75.62	246.96	-963.48	994.63				
100.00	100.00	105.20	105.20	0.28	0.17	-75.61	247.16	-963.32	994.52	994.08	0.45	2,228.598	
200.00	200.00	207.13	207.13	0.63	0.34	-75.57	247.72	-962.86	994.23	993.26	0.97	1,025.374	
300.00	300.00	311.07	311.06	0.99	0.65	-75.52	248.39	-962.08	993.66	992.02	1.64	605.250	
400.00	400.00	413.54	413.53	1.35	1.01	-75.51	248.41	-961.04	992.68	990.31	2.36	419.789	
500.00	500.00	512.87	512.85	1.71	1.37	-75.50	248.35	-960.02	991.67	988.60	3.08	322.302	
600.00	600.00	612.76	612.74	2.07	1.72	-75.48	248.34	-959.04	990.71	986.92	3.79	261.255	
700.00	700.00	709.22	709.19	2.43	2.07	-75.47	248.38	-958.14	989.83	985.34	4.49	220.418	
780.93	780.93	784.16	784.13	2.72	2.33	-75.45	248.54	-957.87	989.59	984.55	5.04	196.319	CC
800.00	800.00	801.82	801.79	2.79	2.39	-75.45	248.59	-957.87	989.60	984.43	5.17	191.400	
900.00	900.00	898.72	898.69	3.14	2.72	-75.44	248.90	-958.19	990.00	984.14	5.86	168.937	
1,000.00	1,000.00	999.06	999.03	3.50	3.06	-75.45	248.88	-958.65	990.44	983.88	6.56	151.021	
1,100.00	1,100.00	1,098.78	1,098.75	3.86	3.40	-75.47	248.59	-959.16	990.86	983.61	7.26	136.539	
1,200.00	1,200.00	1,198.22	1,198.18	4.22	3.74	-75.48	248.50	-959.68	991.34	983.38	7.96	124.602	ES
1,300.00	1,299.98	1,297.23	1,297.19	4.56	4.08	164.52	248.47	-960.25	993.57	984.93	8.64	114.953	
1,400.00	1,399.84	1,394.05	1,394.01	4.90	4.42	164.55	248.30	-961.02	999.35	990.03	9.32	107.274	
1,500.00	1,499.45	1,490.12	1,490.07	5.24	4.75	164.61	248.26	-962.10	1,008.82	998.83	9.99	100.989	
1,600.00	1,598.70	1,595.84	1,595.79	5.58	5.12	164.72	248.33	-963.16	1,021.57	1,010.86	10.70	95.456	
1,700.00	1,697.47	1,691.20	1,691.14	5.93	5.46	164.87	248.73	-963.80	1,037.42	1,026.04	11.38	91.153	
1,800.00	1,795.62	1,789.29	1,789.23	6.28	5.80	165.07	249.50	-964.51	1,056.76	1,044.69	12.07	87.533	
1,810.29	1,805.68	1,799.33	1,799.27	6.32	5.84	164.95	249.59	-964.58	1,058.94	1,046.79	12.15	87.180	
1,900.00	1,893.37	1,888.25	1,888.18	6.63	6.15	165.27	250.69	-965.11	1,078.09	1,065.32	12.77	84.434	
2,000.00	1,991.11	2,011.41	2,011.32	6.99	6.59	165.74	252.67	-964.09	1,098.25	1,084.70	13.55	81.054	
2,100.00	2,088.85	2,122.26	2,122.09	7.35	6.97	166.18	254.59	-960.73	1,116.36	1,102.07	14.29	78.133	
2,200.00	2,186.59	2,229.73	2,229.49	7.72	7.35	166.61	256.51	-956.89	1,134.09	1,119.07	15.02	75.513	
2,300.00	2,284.33	2,335.45	2,335.09	8.08	7.72	167.01	257.91	-952.11	1,150.83	1,135.08	15.75	73.087	
2,400.00	2,382.07	2,424.12	2,423.67	8.45	8.03	167.31	258.69	-948.30	1,167.70	1,151.29	16.42	71.123	
2,500.00	2,479.81	2,509.33	2,508.83	8.82	8.33	167.58	259.35	-945.65	1,185.67	1,168.60	17.08	69.429	
2,600.00	2,577.55	2,594.09	2,593.57	9.19	8.63	167.82	259.98	-944.00	1,204.76	1,187.02	17.73	67.932	
2,700.00	2,675.29	2,686.66	2,686.14	9.57	8.95	168.07	260.86	-943.05	1,224.78	1,206.36	18.42	66.479	
2,800.00	2,773.03	2,780.39	2,779.86	9.94	9.28	168.32	261.79	-942.17	1,244.94	1,225.82	19.12	65.128	
2,900.00	2,870.77	2,871.66	2,871.12	10.32	9.60	168.49	261.65	-942.23	1,265.67	1,245.88	19.79	63.946	
3,000.00	2,968.51	2,997.71	2,997.17	10.70	10.03	168.68	260.48	-942.14	1,286.19	1,265.58	20.61	62.398	
3,100.00	3,066.25	3,165.63	3,164.86	11.07	10.62	168.83	254.51	-936.10	1,302.53	1,280.95	21.58	60.368	
3,200.00	3,163.99	3,353.14	3,351.13	11.45	11.28	168.88	241.71	-919.29	1,312.66	1,290.11	22.55	58.222	
3,300.00	3,261.73	3,504.77	3,500.63	11.83	11.83	168.91	228.44	-897.85	1,317.12	1,293.74	23.38	56.335	
3,400.00	3,359.47	3,630.65	3,624.30	12.21	12.29	169.02	218.42	-876.59	1,319.43	1,295.28	24.15	54.625	
3,500.00	3,457.21	3,755.61	3,746.46	12.59	12.77	169.19	208.76	-852.15	1,319.11	1,294.18	24.92	52.928	
3,600.00	3,554.95	3,862.69	3,850.92	12.97	13.18	169.35	200.51	-830.10	1,317.87	1,292.20	25.67	51.344	
3,700.00	3,652.69	3,966.08	3,951.68	13.35	13.59	169.51	192.34	-808.41	1,316.19	1,289.78	26.41	49.836	
3,800.00	3,750.43	4,052.00	4,035.51	13.73	13.93	169.63	185.50	-790.86	1,315.03	1,287.90	27.13	48.465	
3,900.00	3,848.17	4,154.75	4,135.83	14.12	14.35	169.75	177.06	-770.35	1,314.26	1,286.38	27.88	47.139	
3,996.56	3,942.55	4,240.00	4,219.14	14.49	14.69	169.85	169.95	-753.68	1,313.84	1,285.26	28.58	45.965	
4,000.00	3,945.91	4,240.00	4,219.14	14.50	14.69	169.85	169.95	-753.68	1,313.85	1,285.24	28.60	45.932	
4,100.00	4,043.65	4,325.62	4,303.00	14.88	15.04	169.94	162.93	-737.88	1,314.55	1,285.22	29.33	44.825	
4,200.00	4,141.39	4,421.37	4,396.93	15.27	15.43	170.03	155.19	-721.06	1,316.12	1,286.05	30.07	43.775	
4,300.00	4,239.13	4,524.88	4,498.49	15.65	15.85	170.13	146.96	-702.81	1,317.69	1,286.87	30.82	42.753	
4,400.00	4,336.87	4,636.45	4,607.81	16.03	16.31	170.24	137.84	-682.48	1,318.61	1,287.02	31.59	41.740	
4,500.00	4,434.61	4,739.55	4,708.73	16.42	16.74	170.34	129.35	-663.17	1,319.03	1,286.68	32.35	40.777	
4,600.00	4,532.35	4,840.59	4,807.59	16.80	17.17	170.45	120.93	-644.07	1,319.26	1,286.15	33.10	39.854	
4,700.00	4,630.09	4,938.82	4,903.72	17.19	17.58	170.55	112.74	-625.58	1,319.56	1,285.70	33.85	38.979	
4,800.00	4,727.83	5,037.22	5,000.03	17.57	18.00	170.64	104.52	-607.19	1,319.98	1,285.38	34.60	38.144	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 236-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,825.57	5,134.08	5,094.87	17.96	18.41	170.74	96.47	-589.21	1,320.56	1,285.21	35.35	37.352	
5,000.00	4,923.31	5,225.07	5,184.03	18.34	18.80	170.83	89.04	-572.65	1,321.55	1,285.46	36.09	36.614	
5,100.00	5,021.05	5,314.30	5,271.64	18.73	19.17	170.93	82.27	-557.09	1,323.45	1,286.62	36.83	35.936	
5,200.00	5,118.79	5,410.69	5,366.35	19.11	19.58	171.03	75.02	-540.74	1,325.84	1,288.26	37.58	35.284	
5,300.00	5,216.53	5,504.92	5,458.98	19.50	19.98	171.13	68.07	-524.92	1,328.46	1,290.14	38.32	34.669	
5,400.00	5,314.27	5,604.74	5,557.22	19.89	20.39	171.24	61.04	-508.69	1,331.71	1,292.63	39.07	34.081	
5,500.00	5,412.01	5,723.94	5,674.29	20.27	20.90	171.36	51.91	-488.20	1,333.83	1,293.96	39.87	33.451	
5,600.00	5,509.75	5,829.96	5,778.23	20.66	21.36	171.47	43.46	-469.06	1,335.03	1,294.39	40.65	32.846	
5,700.00	5,607.50	5,928.66	5,874.96	21.05	21.78	171.58	35.69	-451.06	1,336.11	1,294.71	41.40	32.271	
5,800.00	5,705.24	6,024.33	5,968.76	21.43	22.20	171.68	28.31	-433.78	1,337.42	1,295.27	42.15	31.727	
5,900.00	5,802.98	6,118.71	6,061.37	21.82	22.60	171.79	21.24	-417.02	1,339.11	1,296.21	42.90	31.213	
6,000.00	5,900.72	6,212.93	6,153.91	22.21	23.01	171.90	14.33	-400.66	1,341.23	1,297.58	43.65	30.727	
6,100.00	5,998.46	6,334.64	6,273.28	22.59	23.54	172.04	5.14	-378.82	1,342.73	1,298.27	44.46	30.204	
6,200.00	6,096.20	6,425.87	6,362.68	22.98	23.93	172.15	-1.84	-362.04	1,343.77	1,298.57	45.20	29.729	
6,300.00	6,193.94	6,515.63	6,450.78	23.37	24.32	172.25	-8.55	-346.17	1,345.54	1,299.60	45.94	29.289	
6,400.00	6,291.68	6,611.84	6,545.28	23.75	24.74	172.32	-16.42	-329.93	1,347.82	1,301.13	46.69	28.866	
6,500.00	6,389.42	6,698.00	6,629.93	24.14	25.11	172.34	-24.48	-316.06	1,350.42	1,303.00	47.42	28.478	
6,600.00	6,487.16	6,792.00	6,722.46	24.53	25.51	172.32	-33.58	-302.22	1,354.13	1,305.97	48.16	28.115	
6,700.00	6,584.90	6,856.96	6,786.60	24.92	25.77	172.29	-39.62	-293.87	1,359.58	1,310.77	48.81	27.854	
6,800.00	6,682.64	6,937.79	6,866.59	25.30	26.10	172.26	-46.72	-284.75	1,366.82	1,317.33	49.50	27.615	
6,900.00	6,780.38	7,035.72	6,963.68	25.69	26.49	172.29	-53.49	-273.84	1,374.95	1,324.71	50.24	27.366	
7,000.00	6,878.12	7,150.11	7,076.99	26.08	26.95	172.49	-58.05	-258.92	1,382.44	1,331.39	51.05	27.079	
7,100.00	6,975.86	7,247.78	7,173.66	26.47	27.35	172.67	-61.87	-245.49	1,389.31	1,337.52	51.80	26.822	
7,200.00	7,073.60	7,339.21	7,264.20	26.86	27.72	172.86	-64.59	-233.02	1,396.67	1,344.15	52.52	26.594	
7,300.00	7,171.34	7,467.51	7,391.09	27.24	28.24	173.18	-67.85	-214.39	1,403.41	1,350.04	53.37	26.294	
7,323.61	7,194.42	7,488.66	7,411.98	27.34	28.33	173.23	-68.50	-211.14	1,404.77	1,351.22	53.54	26.235	
7,400.00	7,269.29	7,548.00	7,470.62	27.63	28.57	173.36	-70.50	-202.30	1,408.46	1,354.40	54.06	26.054	
7,500.00	7,367.86	7,629.56	7,551.38	28.01	28.90	173.50	-73.40	-191.31	1,411.48	1,356.74	54.73	25.789	
7,600.00	7,466.96	7,714.11	7,635.29	28.38	29.23	173.63	-75.97	-181.22	1,412.59	1,357.19	55.40	25.498	
7,700.00	7,566.46	7,779.32	7,700.10	28.74	29.48	173.72	-77.26	-174.11	1,411.75	1,355.79	55.95	25.231	
7,800.00	7,666.25	7,830.00	7,750.61	29.09	29.67	173.77	-78.08	-170.08	1,410.40	1,354.02	56.38	25.016	
7,900.00	7,766.20	7,883.84	7,804.38	29.43	29.85	173.82	-78.12	-167.43	1,408.96	1,352.20	56.76	24.823	
7,933.80	7,800.00	7,900.10	7,820.62	29.55	29.91	-66.03	-77.84	-166.97	1,408.53	1,351.68	56.86	24.774	
7,975.83	7,842.04	7,925.00	7,845.51	29.68	29.99	-66.00	-77.14	-166.58	1,408.36	1,351.36	57.00	24.708	
8,000.00	7,866.20	7,936.33	7,856.84	29.76	30.03	-65.98	-76.74	-166.50	1,408.50	1,351.45	57.05	24.687	
8,100.00	7,966.20	8,020.00	7,940.43	30.07	30.29	-65.85	-73.07	-166.42	1,410.16	1,352.60	57.56	24.497	
8,200.00	8,066.20	8,109.76	8,030.07	30.39	30.56	-65.69	-68.54	-166.98	1,412.79	1,354.67	58.12	24.308	
8,300.00	8,166.20	8,223.42	8,143.59	30.71	30.91	-65.48	-62.84	-167.18	1,415.01	1,356.12	58.88	24.031	
8,400.00	8,266.20	8,316.77	8,236.83	31.04	31.19	-65.32	-58.38	-167.27	1,417.09	1,357.61	59.48	23.826	
8,428.80	8,295.00	8,344.83	8,264.86	31.13	31.28	-65.27	-57.08	-167.39	1,417.76	1,358.10	59.66	23.765	
8,450.00	8,316.20	8,365.47	8,285.48	31.20	31.34	153.73	-56.13	-167.49	1,418.61	1,358.82	59.79	23.726	
8,500.00	8,366.02	8,413.62	8,333.57	31.38	31.49	153.66	-53.89	-167.75	1,423.44	1,363.32	60.12	23.677	
8,550.00	8,415.30	8,460.54	8,380.44	31.56	31.64	153.49	-51.66	-168.04	1,432.22	1,371.77	60.45	23.693	
8,600.00	8,463.67	8,492.00	8,411.86	31.75	31.73	153.08	-50.12	-168.26	1,444.98	1,384.33	60.65	23.823	
8,650.00	8,510.75	8,536.46	8,456.26	31.95	31.87	152.62	-47.93	-168.86	1,461.72	1,400.74	60.98	23.970	
8,700.00	8,556.19	8,568.51	8,488.26	32.16	31.96	151.86	-46.34	-169.65	1,482.56	1,421.35	61.21	24.221	
8,750.00	8,599.64	8,600.83	8,520.53	32.37	32.06	150.88	-44.73	-170.71	1,507.23	1,445.79	61.44	24.530	
8,800.00	8,640.77	8,633.35	8,552.98	32.58	32.16	149.64	-43.09	-171.96	1,535.44	1,473.75	61.69	24.890	
8,850.00	8,679.28	8,663.34	8,582.91	32.80	32.25	148.04	-41.57	-173.25	1,566.93	1,505.01	61.92	25.306	
8,900.00	8,714.85	8,700.92	8,620.40	33.02	32.36	146.22	-39.73	-175.00	1,601.43	1,539.20	62.23	25.736	
8,950.00	8,747.24	8,750.68	8,670.07	33.24	32.50	144.26	-37.99	-177.17	1,638.30	1,575.65	62.65	26.152	
9,000.00	8,776.18	8,798.91	8,718.27	33.45	32.65	141.82	-37.08	-179.04	1,677.27	1,614.22	63.05	26.603	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 236-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,050.00	8,801.45	8,844.88	8,764.21	33.67	32.79	138.76	-36.63	-180.36	1,718.11	1,654.68	63.42	27.089	
9,100.00	8,822.88	8,885.37	8,804.69	33.88	32.91	134.77	-36.51	-181.13	1,760.63	1,696.88	63.75	27.618	
9,150.00	8,840.29	8,905.26	8,824.59	34.09	32.97	128.75	-36.46	-181.40	1,804.74	1,740.82	63.91	28.237	
9,178.80	8,848.43	8,916.87	8,836.19	34.21	33.01	124.54	-36.45	-181.52	1,830.74	1,766.74	64.01	28.602	
9,200.00	8,853.73	8,924.46	8,843.78	34.30	33.03	123.03	-36.44	-181.59	1,850.09	1,786.02	64.07	28.876	
9,300.00	8,873.56	8,953.39	8,872.71	34.70	33.12	114.25	-36.43	-181.73	1,942.68	1,878.37	64.30	30.211	
9,400.00	8,884.77	8,970.33	8,889.65	35.10	33.17	102.17	-36.43	-181.75	2,036.98	1,972.53	64.45	31.605	
9,478.80	8,887.48	8,974.64	8,893.96	35.42	33.18	90.30	-36.44	-181.74	2,112.05	2,047.55	64.50	32.744	
9,500.00	8,887.48	8,974.68	8,894.01	35.50	33.18	90.30	-36.44	-181.74	2,132.31	2,067.80	64.51	33.054	
9,600.00	8,887.48	8,974.90	8,894.22	35.91	33.18	90.32	-36.44	-181.74	2,228.10	2,163.56	64.54	34.524	
9,700.00	8,887.48	8,975.13	8,894.45	36.33	33.19	90.35	-36.44	-181.74	2,324.25	2,259.68	64.57	35.997	
9,800.00	8,887.48	8,975.37	8,894.69	36.78	33.19	90.37	-36.44	-181.74	2,420.71	2,356.11	64.60	37.473	
9,900.00	8,887.48	8,975.62	8,894.94	37.25	33.19	90.39	-36.44	-181.74	2,517.45	2,452.82	64.63	38.951	
10,000.00	8,887.48	8,975.88	8,895.20	37.74	33.19	90.41	-36.44	-181.74	2,614.43	2,549.77	64.66	40.431	
10,100.00	8,887.48	8,976.16	8,895.48	38.24	33.19	90.44	-36.44	-181.74	2,711.63	2,646.93	64.70	41.913	
10,133.80	8,887.48	8,976.25	8,895.58	38.41	33.19	90.45	-36.44	-181.74	2,744.53	2,679.82	64.71	42.414	
10,200.00	8,887.48	8,976.45	8,895.77	38.76	33.19	90.42	-36.44	-181.74	2,808.85	2,744.12	64.73	43.393	
10,300.00	8,887.48	8,976.74	8,896.06	39.29	33.19	90.39	-36.44	-181.74	2,905.48	2,840.71	64.76	44.862	
10,400.00	8,887.48	12,429.54	10,787.14	39.83	49.98	134.90	-1,930.18	-145.62	2,972.86	2,894.72	78.14	38.043	
10,500.00	8,887.48	12,478.00	10,787.11	40.37	50.42	133.85	-1,978.63	-146.33	3,015.43	2,936.21	79.22	38.064	
10,600.00	8,887.48	12,601.59	10,787.07	40.92	51.55	132.34	-2,102.21	-147.42	3,055.83	2,974.73	81.10	37.680	
10,700.00	8,887.48	12,668.83	10,787.06	41.47	52.19	131.35	-2,169.44	-147.80	3,093.97	3,011.62	82.35	37.570	
10,800.00	8,887.47	12,794.41	10,787.92	42.02	53.41	130.15	-2,295.01	-146.99	3,129.40	3,045.13	84.27	37.136	
10,900.00	8,887.47	12,854.00	10,788.06	42.56	53.99	129.40	-2,354.60	-146.65	3,162.52	3,077.11	85.41	37.028	
11,000.00	8,887.47	12,926.38	10,787.65	43.11	54.72	128.63	-2,426.98	-147.39	3,193.97	3,107.27	86.70	36.839	
11,100.00	8,887.47	13,019.35	10,786.88	43.65	55.65	127.83	-2,519.92	-149.54	3,223.74	3,135.49	88.25	36.531	
11,200.00	8,887.46	13,098.25	10,786.96	44.18	56.46	127.19	-2,598.81	-150.73	3,250.92	3,161.33	89.60	36.284	
11,300.00	8,887.46	13,213.65	10,788.42	44.71	57.66	126.53	-2,714.18	-152.04	3,275.92	3,184.50	91.42	35.835	
11,400.00	8,887.46	13,390.56	10,793.06	45.22	59.59	125.93	-2,890.97	-147.69	3,295.87	3,201.83	94.04	35.049	
11,500.00	8,887.45	13,477.94	10,794.74	45.73	60.56	125.58	-2,978.30	-145.08	3,312.51	3,217.03	95.48	34.692	
11,600.00	8,887.45	13,580.00	10,796.59	46.23	61.70	125.28	-3,080.31	-142.55	3,326.71	3,229.59	97.13	34.251	
11,700.00	8,887.45	13,650.30	10,797.38	46.72	62.49	125.06	-3,150.60	-141.16	3,338.18	3,239.86	98.33	33.950	
11,800.00	8,887.44	13,712.86	10,797.44	47.20	63.19	124.88	-3,213.15	-141.38	3,348.03	3,248.63	99.41	33.680	
11,900.00	8,887.44	13,816.34	10,797.48	47.67	64.36	124.70	-3,316.63	-142.24	3,355.44	3,254.37	101.07	33.201	
12,000.00	8,887.43	13,929.74	10,796.38	48.13	65.66	124.57	-3,430.01	-143.81	3,359.89	3,257.01	102.88	32.659	
12,078.43	8,887.43	14,014.64	10,796.06	48.48	66.64	124.54	-3,514.91	-143.99	3,360.86	3,256.63	104.23	32.245	
12,100.00	8,887.43	14,031.17	10,796.03	48.57	66.84	124.54	-3,531.44	-144.05	3,360.93	3,256.43	104.50	32.163	
12,200.00	8,887.42	14,136.84	10,795.84	49.01	68.07	124.53	-3,637.11	-144.64	3,361.46	3,255.27	106.19	31.655	
12,300.00	8,887.42	14,221.75	10,796.17	49.47	69.07	124.53	-3,722.01	-144.46	3,361.70	3,254.12	107.58	31.250	
12,400.00	8,887.41	14,306.67	10,796.34	49.92	70.08	124.52	-3,806.93	-145.26	3,362.72	3,253.74	108.98	30.857	
12,500.00	8,887.41	14,404.98	10,796.10	50.39	71.25	124.51	-3,905.23	-146.49	3,363.77	3,253.17	110.60	30.414	
12,600.00	8,887.40	14,600.92	10,795.82	50.86	73.62	124.50	-4,101.15	-146.49	3,364.18	3,250.44	113.74	29.577	
12,700.00	8,887.40	14,792.70	10,792.02	51.34	76.00	124.50	-4,292.79	-140.77	3,360.43	3,243.60	116.83	28.764	
12,800.00	8,887.39	14,897.57	10,789.57	51.82	77.32	124.50	-4,397.55	-136.39	3,355.82	3,237.21	118.60	28.295	
12,900.00	8,887.39	14,989.22	10,788.09	52.31	78.47	124.52	-4,489.09	-132.26	3,351.35	3,231.17	120.18	27.886	
13,000.00	8,887.38	15,043.83	10,787.07	52.81	79.16	124.53	-4,543.66	-130.27	3,347.56	3,226.36	121.20	27.620	
13,100.00	8,887.37	15,106.00	10,786.32	53.31	79.95	124.52	-4,605.81	-129.36	3,345.57	3,223.23	122.33	27.348	
13,184.52	8,887.37	15,128.30	10,786.21	53.74	80.23	124.52	-4,628.11	-129.33	3,344.94	3,222.15	122.80	27.240	
13,200.00	8,887.37	15,137.27	10,786.21	53.82	80.34	124.52	-4,637.08	-129.33	3,344.96	3,222.00	122.96	27.204	
13,300.00	8,887.36	15,200.00	10,786.77	54.34	81.13	124.53	-4,699.81	-129.50	3,345.80	3,221.72	124.07	26.966	
13,400.00	8,887.36	15,298.73	10,787.60	54.86	82.37	124.53	-4,798.53	-130.51	3,347.28	3,221.49	125.79	26.610	
13,500.00	8,887.35	15,389.00	10,787.43	55.38	83.51	124.52	-4,888.79	-131.24	3,348.06	3,220.69	127.38	26.285	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 236-MWD+HRGM

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
13,600.00	8,887.35	15,482.00	10,787.98	55.91	84.69	124.51	-4,981.78	-132.64	3,349.80	3,220.79	129.02	25.964	
13,700.00	8,887.34	15,516.03	10,788.50	56.45	85.12	124.50	-5,015.79	-133.71	3,352.91	3,223.27	129.64	25.863	
13,800.00	8,887.34	15,595.53	10,789.69	56.99	86.12	124.49	-5,095.22	-136.85	3,357.14	3,226.09	131.05	25.618	
13,900.00	8,887.33	15,790.90	10,792.68	57.54	88.61	124.48	-5,290.47	-141.71	3,360.28	3,225.80	134.48	24.987	
14,000.00	8,887.33	15,867.59	10,793.99	58.09	89.60	124.49	-5,367.14	-142.55	3,362.28	3,226.42	135.86	24.748	
14,100.00	8,887.32	16,154.03	10,799.23	58.64	93.35	124.61	-5,653.43	-137.62	3,362.55	3,221.85	140.71	23.898	
14,200.00	8,887.32	16,234.00	10,800.01	59.20	94.40	124.65	-5,733.33	-134.29	3,359.79	3,217.62	142.17	23.632	
14,300.00	8,887.31	16,328.00	10,800.29	59.77	95.65	124.68	-5,827.27	-131.08	3,357.30	3,213.43	143.87	23.336	
14,400.00	8,887.31	16,392.43	10,799.96	60.34	96.50	124.69	-5,891.68	-129.68	3,355.36	3,210.27	145.10	23.125	
14,500.00	8,887.30	16,486.78	10,799.49	60.91	97.75	124.69	-5,986.02	-128.51	3,354.21	3,207.39	146.82	22.845	
14,600.00	8,887.30	16,578.41	10,799.16	61.49	98.96	124.70	-6,077.65	-127.19	3,352.99	3,204.48	148.51	22.578	
14,700.00	8,887.29	16,691.95	10,798.75	62.07	100.46	124.71	-6,191.17	-125.79	3,351.95	3,201.39	150.56	22.263	
14,800.00	8,887.29	16,808.63	10,798.05	62.65	102.02	124.71	-6,307.84	-123.63	3,350.23	3,197.55	152.68	21.943	
14,900.00	8,887.28	16,892.00	10,797.46	63.24	103.13	124.72	-6,391.19	-122.08	3,348.47	3,194.23	154.24	21.710	
14,995.36	8,887.28	16,940.05	10,797.14	63.81	103.77	124.72	-6,439.23	-121.73	3,347.74	3,192.55	155.19	21.572	
15,000.00	8,887.28	16,942.21	10,797.12	63.83	103.80	124.72	-6,441.40	-121.74	3,347.74	3,192.51	155.23	21.566	
15,100.00	8,887.27	16,992.00	10,796.84	64.43	104.46	124.71	-6,491.18	-122.39	3,348.61	3,192.41	156.20	21.438	
15,200.00	8,887.27	17,096.49	10,796.24	65.03	105.85	124.67	-6,595.64	-124.62	3,350.20	3,192.05	158.15	21.184	
15,300.00	8,887.26	17,203.30	10,795.73	65.63	107.27	124.65	-6,702.44	-126.07	3,351.18	3,191.04	160.14	20.926	
15,400.00	8,887.25	17,268.00	10,795.43	66.24	108.13	124.63	-6,767.12	-127.66	3,353.04	3,191.67	161.37	20.778	
15,500.00	8,887.25	17,357.22	10,794.50	66.85	109.31	124.58	-6,856.27	-130.95	3,355.63	3,192.56	163.06	20.579	
15,600.00	8,887.24	17,530.40	10,796.23	67.46	111.63	124.58	-7,029.39	-133.35	3,357.74	3,191.48	166.26	20.196	
15,700.00	8,887.24	17,671.48	10,799.52	68.07	113.55	124.66	-7,170.39	-130.08	3,357.22	3,188.41	168.81	19.888	
15,800.00	8,887.23	17,759.51	10,801.51	68.69	114.75	124.71	-7,258.37	-127.86	3,356.59	3,186.14	170.45	19.693	
15,886.93	8,887.23	17,832.00	10,803.48	69.23	115.74	124.75	-7,330.81	-126.17	3,356.40	3,184.60	171.80	19.536	
15,900.00	8,887.23	17,843.77	10,803.81	69.31	115.90	124.75	-7,342.57	-125.92	3,356.40	3,184.38	172.02	19.512	
16,000.00	8,887.22	17,939.08	10,805.89	69.94	117.19	124.80	-7,437.85	-124.54	3,356.61	3,182.82	173.79	19.314	
16,100.00	8,887.22	18,119.76	10,806.31	70.56	119.66	124.83	-7,618.50	-121.57	3,355.52	3,178.46	177.06	18.951	
16,200.00	8,887.21	18,164.82	10,806.74	71.19	120.27	124.84	-7,663.54	-120.49	3,354.18	3,176.18	178.00	18.844	
16,237.68	8,887.21	18,183.35	10,807.08	71.43	120.53	124.85	-7,682.07	-120.14	3,354.07	3,175.70	178.37	18.804	
16,300.00	8,887.21	18,218.44	10,807.99	71.83	121.01	124.87	-7,717.14	-119.65	3,354.34	3,175.30	179.04	18.735	
16,400.00	8,887.20	18,301.00	10,809.96	72.46	122.13	124.90	-7,799.68	-119.23	3,355.43	3,174.83	180.60	18.580	
16,500.00	8,887.20	18,427.97	10,814.12	73.10	123.87	124.97	-7,926.56	-117.90	3,356.68	3,173.74	182.94	18.349	
16,600.00	8,887.19	18,569.79	10,814.44	73.74	125.81	124.98	-8,068.36	-116.61	3,356.07	3,170.50	185.58	18.084	
16,700.00	8,887.19	18,676.00	10,815.66	74.38	127.28	125.02	-8,174.53	-114.00	3,354.85	3,167.29	187.56	17.887	
16,778.63	8,887.18	18,723.97	10,815.87	74.88	127.93	125.03	-8,222.49	-113.24	3,354.29	3,165.78	188.51	17.794	
16,800.00	8,887.18	18,733.51	10,815.96	75.02	128.06	125.03	-8,232.03	-113.18	3,354.33	3,165.62	188.70	17.776	
16,900.00	8,887.18	18,810.54	10,816.92	75.67	129.12	125.04	-8,309.05	-113.50	3,355.41	3,165.23	190.18	17.643	
17,000.00	8,887.17	18,911.42	10,816.10	76.32	130.50	125.02	-8,409.92	-114.62	3,356.01	3,163.89	192.13	17.468	
17,100.00	8,887.17	18,996.05	10,815.07	76.97	131.65	124.98	-8,494.52	-116.74	3,357.48	3,163.70	193.78	17.326	
17,200.00	8,887.16	19,110.31	10,813.73	77.62	133.21	124.94	-8,608.75	-119.03	3,358.59	3,162.60	196.00	17.136	
17,300.00	8,887.16	19,222.59	10,812.57	78.28	134.75	124.90	-8,721.00	-120.90	3,359.53	3,161.36	198.17	16.953	
17,400.00	8,887.15	19,308.48	10,811.54	78.93	135.92	124.87	-8,806.88	-122.30	3,360.35	3,160.50	199.85	16.814	
17,500.00	8,887.14	19,388.30	10,811.36	79.59	137.02	124.86	-8,886.68	-123.64	3,361.75	3,160.34	201.41	16.691	
17,600.00	8,887.14	19,463.68	10,812.10	80.25	138.05	124.85	-8,962.05	-124.84	3,363.79	3,160.92	202.86	16.582	
17,700.00	8,887.13	19,520.00	10,814.11	80.91	138.83	124.88	-9,018.33	-125.23	3,366.69	3,162.78	203.91	16.511	
17,800.00	8,887.13	19,589.92	10,817.20	81.58	139.79	124.91	-9,088.18	-126.23	3,370.65	3,165.45	205.20	16.426	
17,900.00	8,887.12	19,878.14	10,827.91	82.24	143.79	125.08	-9,376.11	-123.46	3,371.52	3,160.95	210.57	16.011	
18,000.00	8,887.12	19,960.67	10,829.93	82.91	144.94	125.13	-9,458.58	-121.01	3,370.69	3,158.54	212.15	15.888	
18,072.15	8,887.11	20,018.12	10,831.52	83.39	145.74	125.16	-9,516.00	-119.66	3,370.56	3,157.31	213.25	15.806	
18,100.00	8,887.11	20,042.26	10,832.26	83.58	146.08	125.18	-9,540.12	-119.11	3,370.58	3,156.87	213.71	15.772	
18,200.00	8,887.11	20,196.70	10,833.82	84.25	148.23	125.22	-9,694.49	-116.65	3,370.08	3,153.50	216.58	15.561	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 236-MWD+HRGM

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
18,300.00	8,887.10	20,269.00	10,832.79	84.92	149.24	125.21	-9,766.78	-116.04	3,368.81	3,150.77	218.04	15.450	
18,388.59	8,887.10	20,334.72	10,833.72	85.52	150.15	125.24	-9,832.48	-114.77	3,368.33	3,149.01	219.32	15.358	
18,400.00	8,887.10	20,341.78	10,834.02	85.60	150.25	125.24	-9,839.53	-114.56	3,368.34	3,148.88	219.46	15.348	
18,500.00	8,887.09	20,438.58	10,838.91	86.27	151.61	125.34	-9,936.15	-111.34	3,368.70	3,147.45	221.25	15.226	
18,600.00	8,887.09	20,507.46	10,841.12	86.95	152.57	125.38	-10,004.98	-110.09	3,369.28	3,146.71	222.57	15.138	
18,700.00	8,887.08	20,584.10	10,842.45	87.63	153.64	125.40	-10,081.60	-110.62	3,370.95	3,146.90	224.06	15.045	
18,800.00	8,887.08	20,728.52	10,847.21	88.31	155.65	125.47	-10,225.92	-109.33	3,372.36	3,145.59	226.77	14.871	
18,900.00	8,887.07	20,866.44	10,849.25	88.99	157.58	125.51	-10,363.82	-107.80	3,372.52	3,143.16	229.37	14.704	
19,000.00	8,887.07	21,011.00	10,849.53	89.67	159.60	125.55	-10,508.33	-104.48	3,370.76	3,138.70	232.06	14.525	
19,100.00	8,887.06	21,074.54	10,850.38	90.36	160.50	125.58	-10,571.84	-102.56	3,369.29	3,135.95	233.35	14.439	
19,200.00	8,887.06	21,185.76	10,851.51	91.04	162.06	125.61	-10,683.03	-100.69	3,368.72	3,133.25	235.46	14.307	
19,300.00	8,887.05	21,264.32	10,852.15	91.73	163.16	125.63	-10,761.58	-99.14	3,367.77	3,130.76	237.01	14.209	
19,363.65	8,887.05	21,308.29	10,852.42	92.17	163.77	125.64	-10,805.54	-98.72	3,367.61	3,129.73	237.89	14.156	
19,400.00	8,887.05	21,332.04	10,852.72	92.42	164.10	125.64	-10,829.29	-98.54	3,367.70	3,129.35	238.36	14.129	
19,500.00	8,887.04	21,386.00	10,853.95	93.11	164.86	125.66	-10,883.23	-98.12	3,368.68	3,129.27	239.41	14.071	
19,600.00	8,887.04	21,464.24	10,855.24	93.80	165.95	125.67	-10,961.45	-98.84	3,370.60	3,129.68	240.92	13.990	
19,700.00	8,887.03	21,525.12	10,855.08	94.49	166.79	125.65	-11,022.29	-101.08	3,373.60	3,131.50	242.10	13.935	
19,800.00	8,887.02	21,625.66	10,854.43	95.18	168.18	125.58	-11,122.69	-106.42	3,377.71	3,133.58	244.13	13.836	
19,900.00	8,887.02	21,860.79	10,852.14	95.87	171.44	125.48	-11,357.69	-112.98	3,379.93	3,131.14	248.79	13.585	
19,906.84	8,887.02	21,825.10	10,852.55	95.92	170.94	125.49	-11,322.02	-112.44	3,379.77	3,131.64	248.13	13.621	
20,000.00	8,887.01	21,920.20	10,851.24	96.57	172.26	125.46	-11,417.09	-113.81	3,380.26	3,130.24	250.02	13.520	
20,100.00	8,887.01	21,947.00	10,850.77	97.26	172.64	125.45	-11,443.88	-114.35	3,381.84	3,131.28	250.56	13.497	SF
20,200.00	8,887.00	21,947.00	10,850.77	97.96	172.64	125.45	-11,443.88	-114.35	3,386.28	3,135.88	250.39	13.524	
20,266.44	8,887.00	21,947.00	10,850.77	98.42	172.64	125.45	-11,443.88	-114.35	3,390.85	3,140.67	250.18	13.554	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	60.13	58.06	101.10	116.59				
100.00	100.00	99.39	99.39	0.28	0.52	60.16	58.26	101.58	117.10	116.30	0.80	146.115	
200.00	200.00	198.17	198.16	0.63	0.59	60.26	58.84	103.00	118.65	117.42	1.23	96.713	
300.00	300.00	298.14	298.10	0.99	0.84	60.02	60.31	104.55	120.72	118.89	1.83	66.031	
400.00	400.00	398.17	398.09	1.35	1.14	59.27	62.73	105.52	122.78	120.29	2.49	49.270	
500.00	500.00	497.96	497.85	1.71	1.47	58.38	65.43	106.27	124.83	121.65	3.18	39.270	
600.00	600.00	598.01	597.85	2.07	1.81	57.45	68.46	107.27	127.28	123.41	3.88	32.829	
700.00	700.00	699.78	699.56	2.43	2.16	56.10	71.64	106.60	128.45	123.86	4.58	28.017	
800.00	800.00	799.78	799.50	2.79	2.51	54.57	75.01	105.43	129.40	124.11	5.29	24.466	
900.00	900.00	900.27	899.94	3.14	2.86	53.24	77.83	104.17	130.04	124.04	6.00	21.683	
1,000.00	1,000.00	1,001.53	1,001.18	3.50	3.21	52.20	79.81	102.89	130.21	123.51	6.71	19.414	
1,100.00	1,100.00	1,103.40	1,103.02	3.86	3.56	51.45	80.40	100.91	129.05	121.64	7.41	17.409	
1,200.00	1,200.00	1,204.07	1,203.66	4.22	3.90	50.97	79.82	98.47	126.79	118.68	8.11	15.630	
1,300.00	1,299.98	1,304.64	1,304.19	4.56	4.24	-70.45	79.13	95.58	123.54	114.75	8.80	14.041	
1,400.00	1,399.84	1,404.48	1,403.97	4.90	4.59	-73.58	78.24	92.39	118.94	109.47	9.48	12.551	
1,500.00	1,499.45	1,503.88	1,503.32	5.24	4.93	-78.60	77.27	89.23	113.91	103.75	10.16	11.212	
1,600.00	1,598.70	1,601.28	1,600.69	5.58	5.27	-85.30	76.44	87.07	110.13	99.29	10.84	10.157	
1,687.91	1,685.56	1,687.58	1,686.98	5.89	5.57	-92.55	75.96	86.20	108.99	97.54	11.45	9.520	CC
1,700.00	1,697.47	1,699.43	1,698.83	5.93	5.61	-93.64	75.90	86.12	109.01	97.48	11.53	9.453	ES
1,800.00	1,795.62	1,796.99	1,796.39	6.28	5.95	-103.63	75.81	85.12	111.48	99.26	12.23	9.118	
1,810.29	1,805.68	1,806.97	1,806.37	6.32	5.99	-104.86	75.84	85.00	112.01	99.71	12.30	9.108	
1,900.00	1,893.37	1,894.11	1,893.50	6.63	6.29	-114.01	76.18	84.04	118.65	105.73	12.92	9.180	
2,000.00	1,991.11	1,992.62	1,992.00	6.99	6.63	-122.32	76.40	84.56	129.07	115.45	13.62	9.477	
2,100.00	2,088.85	2,092.71	2,092.01	7.35	6.97	-128.14	75.65	88.38	140.33	126.02	14.31	9.805	
2,200.00	2,186.59	2,191.45	2,190.64	7.72	7.31	-132.73	74.57	92.97	152.28	137.28	15.00	10.150	
2,300.00	2,284.33	2,291.74	2,290.82	8.08	7.65	-136.88	72.74	97.30	164.46	148.76	15.70	10.475	
2,400.00	2,382.07	2,392.94	2,391.85	8.45	7.99	-140.38	69.78	102.35	176.11	159.71	16.40	10.738	
2,500.00	2,479.81	2,491.04	2,489.72	8.82	8.33	-143.23	66.10	108.02	187.24	170.15	17.10	10.951	
2,600.00	2,577.55	2,581.42	2,580.03	9.19	8.64	-146.18	63.86	110.33	201.36	183.59	17.77	11.332	
2,700.00	2,675.29	2,677.58	2,676.18	9.57	8.97	-149.53	62.79	109.46	218.84	200.38	18.46	11.855	
2,800.00	2,773.03	2,785.43	2,783.97	9.94	9.35	-153.02	60.57	107.63	236.74	217.53	19.21	12.325	
2,900.00	2,870.77	2,904.40	2,902.29	10.32	9.76	-156.88	48.62	109.20	246.93	226.99	19.93	12.387	
3,000.00	2,968.51	3,023.26	3,019.33	10.70	10.17	-160.69	29.01	115.37	250.53	229.97	20.57	12.181	
3,100.00	3,066.25	3,136.84	3,129.71	11.07	10.56	-163.41	6.50	129.58	247.34	226.18	21.16	11.687	
3,200.00	3,163.99	3,237.30	3,226.78	11.45	10.91	-165.01	-12.83	146.77	241.79	219.91	21.88	11.053	
3,300.00	3,261.73	3,334.51	3,320.83	11.83	11.25	-166.46	-30.74	163.61	236.87	214.24	22.63	10.467	
3,400.00	3,359.47	3,431.36	3,414.84	12.21	11.59	-167.89	-47.58	179.73	233.35	209.95	23.39	9.975	
3,500.00	3,457.21	3,525.85	3,506.84	12.59	11.93	-169.25	-63.00	194.75	231.30	207.12	24.18	9.567	
3,510.20	3,467.18	3,535.05	3,515.83	12.63	11.97	-169.38	-64.38	196.10	231.28	207.02	24.26	9.534	
3,600.00	3,554.95	3,619.71	3,598.91	12.97	12.27	-170.52	-76.01	207.55	232.73	207.78	24.96	9.326	
3,700.00	3,652.69	3,720.06	3,697.45	13.35	12.63	-171.82	-89.42	220.89	234.92	209.22	25.69	9.143	
3,800.00	3,750.43	3,819.72	3,795.31	13.73	12.99	-173.15	-103.00	234.02	237.15	210.72	26.44	8.971	
3,900.00	3,848.17	3,919.57	3,893.38	14.12	13.35	-174.42	-116.41	247.19	239.62	212.44	27.18	8.816	
4,000.00	3,945.91	4,018.77	3,990.82	14.50	13.72	-175.51	-129.24	260.64	242.19	214.26	27.93	8.671	
4,100.00	4,043.65	4,116.02	4,086.47	14.88	14.07	-176.47	-141.12	273.52	245.50	216.82	28.69	8.558	
4,200.00	4,141.39	4,215.28	4,184.24	15.27	14.43	-177.54	-153.24	285.61	249.81	220.37	29.44	8.486	
4,300.00	4,239.13	4,314.73	4,282.09	15.65	14.80	-179.06	-167.20	296.62	254.17	223.98	30.19	8.419	
4,400.00	4,336.87	4,412.45	4,378.29	16.03	15.16	179.43	-180.98	306.93	259.14	228.19	30.95	8.373	
4,500.00	4,434.61	4,519.45	4,483.51	16.42	15.55	177.89	-196.18	318.93	263.66	231.97	31.69	8.321	
4,600.00	4,532.35	4,624.72	4,586.49	16.80	15.94	176.40	-212.60	333.31	265.46	233.04	32.42	8.188	
4,700.00	4,630.09	4,723.95	4,683.43	17.19	16.31	175.03	-228.31	347.56	266.70	233.51	33.19	8.036	
4,800.00	4,727.83	4,827.34	4,784.32	17.57	16.70	173.77	-244.35	363.46	267.26	233.33	33.93	7.876	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
4,900.00	4,825.57	4,926.25	4,880.79	17.96	17.07	172.68	-259.42	379.25	267.52	232.82	34.70	7.709	
5,000.00	4,923.31	5,022.56	4,974.90	18.34	17.43	171.67	-273.58	394.06	268.64	233.16	35.49	7.570	
5,100.00	5,021.05	5,119.51	5,070.01	18.73	17.79	170.81	-286.59	407.61	271.65	235.39	36.26	7.492	
5,200.00	5,118.79	5,221.11	5,169.52	19.11	18.17	169.84	-300.86	422.30	274.03	237.01	37.02	7.402	
5,300.00	5,216.53	5,317.46	5,264.08	19.50	18.53	169.00	-313.82	435.50	277.42	239.63	37.79	7.340	
5,400.00	5,314.27	5,420.68	5,365.39	19.89	18.92	168.03	-328.02	449.17	281.23	242.68	38.55	7.294	
5,500.00	5,412.01	5,523.48	5,465.84	20.27	19.30	166.91	-343.61	464.51	283.04	243.72	39.32	7.199	
5,600.00	5,509.75	5,618.81	5,559.18	20.66	19.66	166.06	-357.07	478.49	285.51	245.41	40.10	7.120	
5,700.00	5,607.50	5,720.43	5,658.94	21.05	20.04	165.32	-370.43	492.42	289.26	248.40	40.86	7.079	
5,800.00	5,705.24	5,823.15	5,759.37	21.43	20.43	164.29	-385.75	507.59	291.53	249.90	41.63	7.003	
5,900.00	5,802.98	5,920.36	5,854.35	21.82	20.80	163.21	-400.86	521.78	293.91	251.50	42.41	6.930	
6,000.00	5,900.72	6,021.22	5,953.07	22.21	21.18	162.25	-415.70	536.10	296.98	253.79	43.18	6.877	
6,100.00	5,998.46	6,120.14	6,049.98	22.59	21.56	161.55	-429.19	550.67	299.84	255.89	43.95	6.822	
6,200.00	6,096.20	6,215.45	6,143.58	22.98	21.92	161.03	-441.26	563.99	303.69	258.97	44.73	6.790	
6,300.00	6,193.94	6,314.45	6,241.00	23.37	22.29	160.60	-453.13	576.97	308.56	263.07	45.49	6.783	
6,400.00	6,291.68	6,417.68	6,342.38	23.75	22.68	159.93	-466.86	590.76	312.95	266.69	46.26	6.765	
6,500.00	6,389.42	6,514.00	6,436.97	24.14	23.04	159.28	-479.88	603.43	317.54	270.51	47.03	6.752	
6,600.00	6,487.16	6,615.62	6,536.97	24.53	23.42	158.99	-491.55	617.24	322.08	274.28	47.80	6.738	
6,700.00	6,584.90	6,708.45	6,628.53	24.92	23.77	158.82	-501.52	628.79	327.89	279.34	48.55	6.754	
6,800.00	6,682.64	6,812.00	6,730.54	25.30	24.16	158.29	-514.60	640.87	334.19	284.86	49.33	6.775	
6,900.00	6,780.38	6,921.47	6,837.59	25.69	24.58	157.14	-532.21	655.38	338.40	288.29	50.11	6.753	
7,000.00	6,878.12	7,020.27	6,933.84	26.08	24.96	156.11	-548.50	670.59	340.55	289.65	50.89	6.691	
7,100.00	6,975.86	7,115.55	7,027.46	26.47	25.32	155.66	-560.81	683.32	345.19	293.52	51.67	6.681	
7,200.00	7,073.60	7,228.98	7,138.24	26.86	25.75	154.71	-578.28	700.18	348.17	295.73	52.43	6.640	
7,300.00	7,171.34	7,338.70	7,243.84	27.24	26.18	153.00	-600.23	720.27	347.27	294.09	53.19	6.529	
7,323.61	7,194.42	7,362.82	7,267.01	27.34	26.28	152.63	-605.00	725.02	346.78	293.41	53.37	6.497	
7,400.00	7,269.29	7,433.16	7,334.87	27.63	26.55	151.66	-617.78	738.35	345.02	291.01	54.01	6.388	
7,500.00	7,367.86	7,533.37	7,432.15	28.01	26.94	150.40	-633.53	756.53	341.12	286.33	54.79	6.226	
7,600.00	7,466.96	7,629.97	7,526.16	28.38	27.31	149.08	-647.26	774.05	334.40	278.83	55.57	6.018	
7,700.00	7,566.46	7,717.63	7,611.98	28.74	27.65	147.82	-658.21	788.09	327.02	270.69	56.33	5.805	
7,800.00	7,666.25	7,818.00	7,710.79	29.09	28.02	146.31	-668.98	802.05	318.96	261.89	57.07	5.589	
7,900.00	7,766.20	7,911.21	7,802.54	29.43	28.38	144.42	-679.22	814.79	308.52	250.73	57.79	5.339	
7,933.80	7,800.00	7,942.46	7,833.32	29.55	28.49	-96.26	-683.04	818.65	304.91	246.89	58.02	5.255	
8,000.00	7,866.20	8,003.86	7,893.84	29.76	28.73	-97.86	-690.66	825.66	298.36	239.89	58.46	5.103	
8,100.00	7,966.20	8,102.48	7,991.17	30.07	29.10	-100.51	-702.65	836.12	289.75	230.59	59.16	4.897	
8,200.00	8,066.20	8,208.04	8,094.95	30.39	29.50	-103.87	-716.89	849.02	280.53	220.63	59.90	4.683	
8,300.00	8,166.20	8,311.34	8,195.72	30.71	29.90	-108.06	-733.18	864.88	269.89	209.27	60.63	4.452	
8,400.00	8,266.20	8,406.48	8,288.67	31.04	30.26	-112.02	-747.29	879.41	260.44	199.11	61.33	4.247	
8,428.80	8,295.00	8,434.80	8,316.42	31.13	30.37	-113.17	-751.20	883.52	258.07	196.54	61.53	4.194	
8,450.00	8,316.20	8,455.75	8,336.96	31.20	30.45	105.22	-754.04	886.55	256.48	194.80	61.68	4.158	
8,500.00	8,366.02	8,505.06	8,385.32	31.38	30.64	104.36	-760.54	893.60	253.66	191.61	62.05	4.088	
8,550.00	8,415.30	8,553.86	8,433.24	31.56	30.82	104.36	-766.83	900.33	252.15	189.73	62.42	4.039	
8,580.31	8,444.75	8,583.26	8,462.15	31.68	30.94	104.78	-770.56	904.23	251.88	189.23	62.65	4.020	
8,600.00	8,463.67	8,601.74	8,480.32	31.75	31.01	105.20	-772.88	906.59	252.02	189.22	62.80	4.013	SF
8,650.00	8,510.75	8,648.16	8,526.06	31.95	31.18	106.80	-778.63	912.10	253.71	190.54	63.16	4.017	
8,700.00	8,556.19	8,693.08	8,570.40	32.16	31.35	108.99	-784.04	916.81	257.67	194.15	63.52	4.057	
8,750.00	8,599.64	8,735.67	8,612.56	32.37	31.51	111.57	-788.77	920.50	264.58	200.73	63.85	4.144	
8,800.00	8,640.77	8,776.55	8,653.14	32.58	31.66	114.34	-792.88	923.30	275.10	210.94	64.16	4.288	
8,850.00	8,679.28	8,817.41	8,693.76	32.80	31.81	117.25	-796.55	925.74	289.44	224.97	64.47	4.490	
8,900.00	8,714.85	8,855.09	8,731.27	33.02	31.95	119.80	-799.51	927.82	307.89	243.14	64.75	4.755	
8,950.00	8,747.24	8,895.19	8,771.19	33.24	32.09	122.43	-802.61	930.13	330.44	265.37	65.08	5.078	
9,000.00	8,776.18	8,935.14	8,810.84	33.45	32.24	124.69	-806.36	933.08	356.53	291.13	65.39	5.452	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
9,050.00	8,801.45	8,971.40	8,846.74	33.67	32.37	126.14	-810.33	936.32	386.00	320.33	65.66	5.878	
9,100.00	8,822.88	9,002.01	8,877.00	33.88	32.49	126.50	-813.82	939.31	418.88	353.00	65.88	6.358	
9,150.00	8,840.29	9,029.03	8,903.70	34.09	32.59	125.91	-816.96	942.10	454.95	388.89	66.06	6.887	
9,178.80	8,848.43	9,042.86	8,917.35	34.21	32.64	125.07	-818.58	943.59	477.04	410.89	66.15	7.212	
9,200.00	8,853.73	9,052.39	8,926.76	34.30	32.68	125.34	-819.71	944.64	493.78	427.58	66.21	7.458	
9,300.00	8,873.56	9,091.84	8,965.66	34.70	32.83	125.10	-824.43	949.15	576.69	510.25	66.44	8.680	
9,400.00	8,884.77	9,123.24	8,996.60	35.10	32.95	122.27	-828.27	952.91	664.82	598.21	66.61	9.981	
9,478.80	8,887.48	9,141.92	9,014.99	35.42	33.02	117.70	-830.59	955.23	737.02	670.32	66.71	11.049	
9,500.00	8,887.48	9,146.21	9,019.21	35.50	33.03	118.49	-831.12	955.77	756.75	690.02	66.73	11.341	
9,600.00	8,887.48	9,171.06	9,043.64	35.91	33.13	122.83	-834.29	958.98	850.44	783.59	66.85	12.721	
9,700.00	8,887.48	9,198.51	9,070.59	36.33	33.23	127.19	-837.94	962.72	944.91	877.92	66.99	14.105	
9,800.00	8,887.48	9,228.82	9,100.28	36.78	33.35	131.51	-842.16	967.08	1,039.87	972.73	67.15	15.486	
9,900.00	8,887.48	10,824.46	9,992.32	37.25	39.78	168.68	-1,644.14	1,640.60	1,126.94	1,082.51	44.43	25.362	
10,000.00	8,887.48	10,918.29	9,995.44	37.74	40.19	168.53	-1,719.28	1,696.66	1,130.98	1,085.60	45.38	24.923	
10,100.00	8,887.48	11,009.72	9,996.60	38.24	40.59	167.80	-1,798.70	1,741.84	1,135.63	1,088.97	46.65	24.342	
10,133.80	8,887.48	11,039.33	9,996.84	38.41	40.72	167.50	-1,825.08	1,755.29	1,137.43	1,090.29	47.14	24.128	
10,200.00	8,887.48	11,103.70	9,997.36	38.76	41.00	166.77	-1,882.84	1,783.68	1,141.14	1,093.08	48.05	23.747	
10,300.00	8,887.48	11,202.69	9,997.34	39.29	41.43	165.71	-1,972.39	1,825.86	1,145.93	1,096.49	49.44	23.179	
10,400.00	8,887.48	11,287.32	9,996.48	39.83	41.81	164.67	-2,051.15	1,856.78	1,150.94	1,099.87	51.07	22.538	
10,500.00	8,887.48	11,368.34	9,995.87	40.37	42.16	163.65	-2,127.60	1,883.58	1,156.68	1,103.93	52.75	21.928	
10,600.00	8,887.48	11,446.00	9,995.18	40.92	42.50	162.56	-2,202.38	1,904.44	1,163.58	1,109.05	54.53	21.337	
10,700.00	8,887.48	11,507.91	9,994.80	41.47	42.75	161.55	-2,262.98	1,917.09	1,172.20	1,115.78	56.43	20.774	
10,800.00	8,887.47	11,575.09	9,995.03	42.02	43.03	160.40	-2,329.32	1,927.58	1,182.85	1,124.54	58.31	20.287	
10,900.00	8,887.47	11,675.08	9,995.39	42.56	43.42	158.74	-2,428.78	1,937.84	1,194.95	1,134.74	60.22	19.844	
11,000.00	8,887.47	11,775.25	9,991.68	43.11	43.82	157.08	-2,528.59	1,945.29	1,203.87	1,141.69	62.18	19.361	
11,100.00	8,887.47	11,863.09	9,991.17	43.65	44.18	155.87	-2,616.07	1,953.24	1,214.19	1,150.25	63.95	18.987	
11,200.00	8,887.46	11,958.81	9,989.97	44.18	44.58	154.78	-2,711.23	1,963.34	1,222.40	1,156.77	65.62	18.628	
11,300.00	8,887.46	12,030.92	9,989.12	44.71	44.87	153.90	-2,783.21	1,967.46	1,231.51	1,164.29	67.22	18.321	
11,400.00	8,887.46	12,128.92	9,987.02	45.22	45.27	152.73	-2,881.17	1,969.01	1,240.50	1,171.55	68.96	17.990	
11,500.00	8,887.45	12,225.42	9,982.74	45.73	45.66	151.61	-2,977.58	1,968.25	1,247.38	1,176.70	70.68	17.648	
11,600.00	8,887.45	12,291.00	9,981.76	46.23	45.93	150.96	-3,043.14	1,968.17	1,255.06	1,183.02	72.04	17.421	
11,700.00	8,887.45	12,402.07	9,981.10	46.72	46.40	150.19	-3,154.20	1,969.02	1,261.62	1,188.00	73.62	17.137	
11,800.00	8,887.44	12,479.00	9,982.00	47.20	46.73	149.80	-3,231.12	1,969.93	1,267.72	1,192.87	74.85	16.938	
11,900.00	8,887.44	12,609.99	9,983.84	47.67	47.32	149.56	-3,361.98	1,974.93	1,271.10	1,194.77	76.33	16.653	
12,000.00	8,887.43	12,694.46	9,983.21	48.13	47.70	149.41	-3,446.44	1,975.93	1,272.23	1,194.74	77.49	16.419	
12,078.43	8,887.43	12,762.00	9,982.63	48.48	48.00	149.32	-3,513.97	1,975.04	1,272.79	1,194.39	78.39	16.236	
12,100.00	8,887.43	12,792.56	9,982.37	48.57	48.14	149.29	-3,544.53	1,974.61	1,272.82	1,194.07	78.74	16.164	
12,200.00	8,887.42	12,889.97	9,981.34	49.01	48.58	149.30	-3,641.92	1,975.54	1,271.55	1,191.61	79.94	15.907	
12,204.57	8,887.42	12,892.51	9,981.34	49.04	48.60	149.30	-3,644.47	1,975.54	1,271.55	1,191.57	79.98	15.899	
12,300.00	8,887.42	12,950.00	9,981.80	49.47	48.86	149.26	-3,701.93	1,974.39	1,273.15	1,192.32	80.83	15.750	
12,400.00	8,887.41	13,033.04	9,982.33	49.92	49.23	149.06	-3,784.79	1,969.04	1,277.06	1,195.04	82.01	15.571	
12,500.00	8,887.41	13,167.08	9,981.60	50.39	49.83	148.66	-3,918.47	1,959.44	1,280.52	1,196.75	83.77	15.286	
12,600.00	8,887.40	13,337.19	9,977.68	50.86	50.65	148.48	-4,088.47	1,957.29	1,279.22	1,193.44	85.78	14.913	
12,700.00	8,887.40	13,433.22	9,974.53	51.34	51.13	148.46	-4,184.43	1,959.03	1,275.57	1,188.55	87.02	14.658	
12,800.00	8,887.39	13,513.00	9,973.34	51.82	51.54	148.51	-4,264.17	1,961.17	1,272.98	1,184.89	88.09	14.451	
12,900.00	8,887.39	13,608.73	9,973.25	52.31	52.04	148.62	-4,359.85	1,964.12	1,271.39	1,182.10	89.29	14.240	
13,000.00	8,887.38	13,726.22	9,971.65	52.81	52.65	148.70	-4,477.28	1,967.40	1,268.82	1,178.11	90.71	13.987	
13,100.00	8,887.37	13,820.98	9,970.28	53.31	53.16	148.76	-4,572.00	1,970.05	1,266.23	1,174.30	91.94	13.773	
13,200.00	8,887.37	13,916.99	9,967.61	53.82	53.67	148.72	-4,667.97	1,970.89	1,263.51	1,170.28	93.23	13.552	
13,300.00	8,887.36	13,993.51	9,966.85	54.34	54.07	148.73	-4,744.48	1,971.54	1,262.31	1,168.00	94.32	13.384	
13,400.00	8,887.36	14,090.99	9,967.18	54.86	54.60	148.78	-4,841.94	1,972.77	1,262.05	1,166.45	95.59	13.202	
13,464.00	8,887.36	14,152.94	9,967.44	55.19	54.93	148.80	-4,903.89	1,973.42	1,261.99	1,165.58	96.41	13.090	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Offset Well Error: 0.50 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
13,500.00	8,887.35	14,187.29	9,967.61	55.38	55.12	148.82	-4,938.24	1,973.72	1,262.01	1,165.14	96.87	13.028	
13,600.00	8,887.35	14,291.14	9,969.57	55.91	55.70	148.97	-5,042.03	1,976.59	1,262.31	1,164.13	98.18	12.857	
13,700.00	8,887.34	14,396.14	9,971.95	56.45	56.30	149.26	-5,146.80	1,982.97	1,261.20	1,161.76	99.44	12.683	
13,723.64	8,887.34	14,412.88	9,972.31	56.58	56.39	149.30	-5,163.52	1,983.70	1,261.14	1,161.47	99.67	12.653	
13,800.00	8,887.34	14,476.64	9,973.57	56.99	56.75	149.37	-5,227.26	1,984.94	1,261.72	1,161.18	100.54	12.550	
13,900.00	8,887.33	14,581.01	9,973.67	57.54	57.34	149.33	-5,331.61	1,983.92	1,262.39	1,160.42	101.97	12.380	
14,000.00	8,887.33	14,732.00	9,973.19	58.09	58.20	149.44	-5,482.50	1,987.49	1,261.00	1,157.20	103.81	12.147	
14,100.00	8,887.32	14,801.54	9,972.08	58.64	58.61	149.54	-5,551.95	1,990.73	1,257.81	1,152.98	104.83	11.999	
14,135.54	8,887.32	14,825.00	9,972.22	58.84	58.75	149.55	-5,575.40	1,991.05	1,257.74	1,152.56	105.18	11.958	
14,200.00	8,887.32	14,870.01	9,972.63	59.20	59.00	149.55	-5,620.41	1,990.77	1,258.43	1,152.58	105.85	11.888	
14,300.00	8,887.31	14,956.29	9,972.87	59.77	59.49	149.43	-5,706.63	1,987.67	1,260.59	1,153.46	107.13	11.767	
14,400.00	8,887.31	15,055.69	9,972.87	60.34	60.04	149.21	-5,805.89	1,982.23	1,263.48	1,154.88	108.60	11.634	
14,500.00	8,887.30	15,166.01	9,972.97	60.91	60.67	149.03	-5,916.12	1,977.88	1,265.67	1,155.48	110.19	11.486	
14,600.00	8,887.30	15,275.33	9,972.86	61.49	61.30	148.90	-6,025.39	1,974.62	1,267.23	1,155.47	111.75	11.339	
14,700.00	8,887.29	15,383.55	9,972.74	62.07	61.93	148.82	-6,133.59	1,972.95	1,268.03	1,154.75	113.28	11.193	
14,800.00	8,887.29	15,484.69	9,973.28	62.65	62.53	148.83	-6,234.72	1,973.18	1,268.47	1,153.77	114.69	11.060	
14,900.00	8,887.28	15,590.73	9,973.21	63.24	63.17	148.82	-6,340.77	1,972.94	1,268.64	1,152.46	116.18	10.920	
15,000.00	8,887.28	15,694.06	9,972.84	63.83	63.79	148.81	-6,444.10	1,973.10	1,268.34	1,150.71	117.63	10.782	
15,058.26	8,887.27	15,748.13	9,972.81	64.18	64.12	148.81	-6,498.16	1,973.34	1,268.24	1,149.84	118.40	10.711	
15,100.00	8,887.27	15,787.74	9,972.88	64.43	64.36	148.81	-6,537.77	1,973.46	1,268.29	1,149.32	118.97	10.661	
15,200.00	8,887.27	15,884.85	9,973.10	65.03	64.95	148.81	-6,634.88	1,973.45	1,268.59	1,148.23	120.35	10.541	
15,300.00	8,887.26	15,985.01	9,973.09	65.63	65.56	148.78	-6,735.04	1,972.80	1,269.01	1,147.22	121.79	10.420	
15,400.00	8,887.25	16,085.04	9,973.37	66.24	66.18	148.78	-6,835.07	1,972.87	1,269.32	1,146.11	123.21	10.302	
15,500.00	8,887.25	16,189.33	9,973.80	66.85	66.82	148.79	-6,939.36	1,972.97	1,269.74	1,145.05	124.69	10.183	
15,600.00	8,887.24	16,291.01	9,973.35	67.46	67.45	148.77	-7,041.04	1,972.91	1,269.48	1,143.33	126.15	10.063	
15,614.12	8,887.24	16,304.00	9,973.28	67.54	67.53	148.76	-7,054.02	1,972.84	1,269.47	1,143.13	126.34	10.048	
15,700.00	8,887.24	16,380.21	9,973.16	68.07	68.01	148.73	-7,130.24	1,972.28	1,269.77	1,142.31	127.47	9.962	
15,800.00	8,887.23	16,470.00	9,973.89	68.69	68.57	148.72	-7,220.02	1,971.55	1,270.98	1,142.21	128.78	9.870	
15,900.00	8,887.23	16,559.32	9,974.25	69.31	69.12	148.62	-7,309.30	1,969.03	1,272.91	1,142.80	130.11	9.783	
16,000.00	8,887.22	16,681.32	9,975.80	69.94	69.89	148.55	-7,431.26	1,966.55	1,275.31	1,143.44	131.87	9.671	
16,100.00	8,887.22	16,799.00	9,976.69	70.56	70.65	148.69	-7,548.87	1,969.91	1,274.44	1,140.97	133.48	9.548	
16,200.00	8,887.21	16,893.00	9,977.59	71.19	71.25	148.81	-7,642.82	1,972.53	1,273.92	1,139.11	134.81	9.450	
16,300.00	8,887.21	17,013.50	9,978.19	71.83	72.04	148.93	-7,763.28	1,975.40	1,273.28	1,136.83	136.45	9.331	
16,400.00	8,887.20	17,121.89	9,978.89	72.46	72.75	149.17	-7,871.49	1,981.49	1,271.03	1,133.14	137.90	9.217	
16,500.00	8,887.20	17,214.90	9,979.19	73.10	73.37	149.37	-7,964.36	1,986.59	1,268.62	1,129.42	139.20	9.114	
16,600.00	8,887.19	17,310.05	9,979.57	73.74	73.99	149.50	-8,059.45	1,990.03	1,267.22	1,126.66	140.55	9.016	
16,700.00	8,887.19	17,405.88	9,979.61	74.38	74.63	149.64	-8,155.21	1,993.71	1,265.42	1,123.51	141.91	8.917	
16,800.00	8,887.18	17,490.99	9,979.74	75.02	75.18	149.68	-8,240.30	1,994.74	1,265.01	1,121.82	143.19	8.835	
16,891.49	8,887.18	17,582.47	9,979.92	75.61	75.78	149.70	-8,331.79	1,995.28	1,264.98	1,120.46	144.52	8.753	
16,900.00	8,887.18	17,584.00	9,979.92	75.67	75.79	149.70	-8,333.31	1,995.29	1,264.99	1,120.44	144.56	8.751	
17,000.00	8,887.17	17,584.00	9,979.92	76.32	75.79	149.70	-8,333.31	1,995.29	1,269.45	1,125.01	144.44	8.789	
17,100.00	8,887.17	17,584.00	9,979.92	76.97	75.79	149.70	-8,333.31	1,995.29	1,281.73	1,137.98	143.74	8.917	
17,200.00	8,887.16	17,584.00	9,979.92	77.62	75.79	149.70	-8,333.31	1,995.29	1,301.59	1,159.08	142.50	9.134	
17,300.00	8,887.16	17,584.00	9,979.92	78.28	75.79	149.70	-8,333.31	1,995.29	1,328.70	1,187.89	140.81	9.436	
17,400.00	8,887.15	17,584.00	9,979.92	78.93	75.79	149.70	-8,333.31	1,995.29	1,362.63	1,223.88	138.74	9.821	
17,500.00	8,887.14	17,584.00	9,979.92	79.59	75.79	149.70	-8,333.31	1,995.29	1,402.88	1,266.47	136.41	10.284	
17,600.00	8,887.14	17,584.00	9,979.92	80.25	75.79	149.70	-8,333.31	1,995.29	1,448.92	1,315.02	133.90	10.821	
17,700.00	8,887.13	17,584.00	9,979.92	80.91	75.79	149.70	-8,333.31	1,995.29	1,500.23	1,368.92	131.31	11.425	
17,800.00	8,887.13	17,584.00	9,979.92	81.58	75.79	149.70	-8,333.31	1,995.29	1,556.28	1,427.58	128.69	12.093	
17,900.00	8,887.12	17,584.00	9,979.92	82.24	75.79	149.70	-8,333.31	1,995.29	1,616.57	1,490.46	126.11	12.819	
18,000.00	8,887.12	17,584.00	9,979.92	82.91	75.79	149.70	-8,333.31	1,995.29	1,680.66	1,557.05	123.61	13.597	
18,100.00	8,887.11	17,584.00	9,979.92	83.58	75.79	149.70	-8,333.31	1,995.29	1,748.12	1,626.91	121.21	14.422	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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
18,200.00	8,887.11	17,584.00	9,979.92	84.25	75.79	149.70	-8,333.31	1,995.29	1,818.58	1,699.65	118.93	15.291	
18,300.00	8,887.10	17,584.00	9,979.92	84.92	75.79	149.70	-8,333.31	1,995.29	1,891.70	1,774.91	116.79	16.197	
18,400.00	8,887.10	17,584.00	9,979.92	85.60	75.79	149.70	-8,333.31	1,995.29	1,967.19	1,852.40	114.79	17.137	
18,500.00	8,887.09	17,584.00	9,979.92	86.27	75.79	149.70	-8,333.31	1,995.29	2,044.79	1,931.86	112.93	18.107	
18,600.00	8,887.09	17,584.00	9,979.92	86.95	75.79	149.70	-8,333.31	1,995.29	2,124.26	2,013.05	111.20	19.102	
18,700.00	8,887.08	17,584.00	9,979.92	87.63	75.79	149.70	-8,333.31	1,995.29	2,205.40	2,095.79	109.61	20.121	
18,800.00	8,887.08	17,584.00	9,979.92	88.31	75.79	149.70	-8,333.31	1,995.29	2,288.03	2,179.90	108.13	21.160	
18,900.00	8,887.07	17,584.00	9,979.92	88.99	75.79	149.70	-8,333.31	1,995.29	2,372.00	2,265.23	106.77	22.216	
19,000.00	8,887.07	17,584.00	9,979.92	89.67	75.79	149.70	-8,333.31	1,995.29	2,457.18	2,351.66	105.52	23.286	
19,100.00	8,887.06	17,584.00	9,979.92	90.36	75.79	149.70	-8,333.31	1,995.29	2,543.43	2,439.06	104.37	24.370	
19,200.00	8,887.06	17,584.00	9,979.92	91.04	75.79	149.70	-8,333.31	1,995.29	2,630.65	2,527.34	103.31	25.464	
19,300.00	8,887.05	17,584.00	9,979.92	91.73	75.79	149.70	-8,333.31	1,995.29	2,718.76	2,616.42	102.33	26.568	
19,400.00	8,887.05	17,584.00	9,979.92	92.42	75.79	149.70	-8,333.31	1,995.29	2,807.66	2,706.22	101.44	27.679	
19,500.00	8,887.04	17,584.00	9,979.92	93.11	75.79	149.70	-8,333.31	1,995.29	2,897.29	2,796.67	100.61	28.796	
19,600.00	8,887.04	17,584.00	9,979.92	93.80	75.79	149.70	-8,333.31	1,995.29	2,987.57	2,887.72	99.85	29.919	
19,700.00	8,887.03	17,584.00	9,979.92	94.49	75.79	149.70	-8,333.31	1,995.29	3,078.45	2,979.30	99.16	31.047	
19,800.00	8,887.02	17,584.00	9,979.92	95.18	75.79	149.70	-8,333.31	1,995.29	3,169.89	3,071.37	98.51	32.177	
19,900.00	8,887.02	17,584.00	9,979.92	95.87	75.79	149.70	-8,333.31	1,995.29	3,261.82	3,163.90	97.92	33.310	
20,000.00	8,887.01	17,584.00	9,979.92	96.57	75.79	149.70	-8,333.31	1,995.29	3,354.22	3,256.85	97.38	34.446	
20,100.00	8,887.01	17,584.00	9,979.92	97.26	75.79	149.70	-8,333.31	1,995.29	3,447.05	3,350.17	96.88	35.582	
20,200.00	8,887.00	17,584.00	9,979.92	97.96	75.79	149.70	-8,333.31	1,995.29	3,540.26	3,443.85	96.41	36.720	
20,266.44	8,887.00	17,584.00	9,979.92	98.42	75.79	149.70	-8,333.31	1,995.29	3,602.39	3,506.26	96.13	37.475	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	60.13	58.06	101.10	116.59				
100.00	100.00	99.39	99.39	0.28	0.52	60.16	58.26	101.58	117.10	116.30	0.80	146.115	
200.00	200.00	198.17	198.16	0.63	0.59	60.26	58.84	103.00	118.65	117.42	1.23	96.713	
300.00	300.00	298.14	298.10	0.99	0.84	60.02	60.31	104.55	120.72	118.89	1.83	66.031	
400.00	400.00	398.17	398.09	1.35	1.14	59.27	62.73	105.52	122.78	120.29	2.49	49.270	
500.00	500.00	497.96	497.85	1.71	1.47	58.38	65.43	106.27	124.83	121.65	3.18	39.270	
600.00	600.00	598.01	597.85	2.07	1.81	57.45	68.46	107.27	127.28	123.41	3.88	32.829	
700.00	700.00	699.78	699.56	2.43	2.16	56.10	71.64	106.60	128.45	123.86	4.58	28.017	
800.00	800.00	799.78	799.50	2.79	2.51	54.57	75.01	105.43	129.40	124.11	5.29	24.466	
900.00	900.00	900.27	899.94	3.14	2.86	53.24	77.83	104.17	130.04	124.04	6.00	21.683	
1,000.00	1,000.00	1,001.53	1,001.18	3.50	3.21	52.20	79.81	102.89	130.21	123.51	6.71	19.414	
1,100.00	1,100.00	1,103.40	1,103.02	3.86	3.56	51.45	80.40	100.91	129.05	121.64	7.41	17.409	
1,200.00	1,200.00	1,204.07	1,203.66	4.22	3.90	50.97	79.82	98.47	126.79	118.68	8.11	15.630	
1,300.00	1,299.98	1,304.64	1,304.19	4.56	4.24	-70.45	79.13	95.58	123.54	114.75	8.80	14.041	
1,400.00	1,399.84	1,404.48	1,403.97	4.90	4.59	-73.58	78.24	92.39	118.94	109.47	9.48	12.551	
1,500.00	1,499.45	1,503.88	1,503.32	5.24	4.93	-78.60	77.27	89.23	113.91	103.75	10.16	11.212	
1,600.00	1,598.70	1,601.28	1,600.69	5.58	5.27	-85.30	76.44	87.07	110.13	99.29	10.84	10.157	
1,687.91	1,685.56	1,687.58	1,686.98	5.89	5.57	-92.55	75.96	86.20	108.99	97.54	11.45	9.520	CC
1,700.00	1,697.47	1,699.43	1,698.83	5.93	5.61	-93.64	75.90	86.12	109.01	97.48	11.53	9.453	ES
1,800.00	1,795.62	1,796.99	1,796.39	6.28	5.95	-103.63	75.81	85.12	111.48	99.26	12.23	9.118	
1,810.29	1,805.68	1,806.97	1,806.37	6.32	5.99	-104.86	75.84	85.00	112.01	99.71	12.30	9.108	
1,900.00	1,893.37	1,894.11	1,893.50	6.63	6.29	-114.01	76.18	84.04	118.65	105.73	12.92	9.180	
2,000.00	1,991.11	1,992.62	1,992.00	6.99	6.63	-122.32	76.40	84.56	129.07	115.45	13.62	9.477	
2,100.00	2,088.85	2,092.71	2,092.01	7.35	6.97	-128.14	75.65	88.38	140.33	126.02	14.31	9.805	
2,200.00	2,186.59	2,191.45	2,190.64	7.72	7.31	-132.73	74.57	92.97	152.28	137.28	15.00	10.150	
2,300.00	2,284.33	2,291.74	2,290.82	8.08	7.65	-136.88	72.74	97.30	164.46	148.76	15.70	10.475	
2,400.00	2,382.07	2,392.94	2,391.85	8.45	7.99	-140.38	69.78	102.35	176.11	159.71	16.40	10.738	
2,500.00	2,479.81	2,491.04	2,489.72	8.82	8.33	-143.23	66.10	108.02	187.24	170.15	17.10	10.951	
2,600.00	2,577.55	2,581.42	2,580.03	9.19	8.64	-146.18	63.86	110.33	201.36	183.59	17.77	11.332	
2,700.00	2,675.29	2,677.58	2,676.18	9.57	8.97	-149.53	62.79	109.46	218.84	200.38	18.46	11.855	
2,800.00	2,773.03	2,785.43	2,783.97	9.94	9.35	-153.02	60.57	107.63	236.74	217.53	19.21	12.325	
2,900.00	2,870.77	2,904.40	2,902.29	10.32	9.76	-156.88	48.62	109.20	246.93	226.99	19.93	12.387	
3,000.00	2,968.51	3,023.26	3,019.33	10.70	10.17	-160.69	29.01	115.37	250.53	229.97	20.57	12.181	
3,100.00	3,066.25	3,136.84	3,129.71	11.07	10.56	-163.41	6.50	129.58	247.34	226.18	21.16	11.687	
3,200.00	3,163.99	3,237.30	3,226.78	11.45	10.91	-165.01	-12.83	146.77	241.79	219.91	21.88	11.053	
3,300.00	3,261.73	3,334.51	3,320.83	11.83	11.25	-166.46	-30.74	163.61	236.87	214.24	22.63	10.467	
3,400.00	3,359.47	3,431.36	3,414.84	12.21	11.59	-167.89	-47.58	179.73	233.35	209.95	23.39	9.975	
3,500.00	3,457.21	3,525.85	3,506.84	12.59	11.93	-169.25	-63.00	194.75	231.30	207.12	24.18	9.567	
3,510.20	3,467.18	3,535.05	3,515.83	12.63	11.97	-169.38	-64.38	196.10	231.28	207.02	24.26	9.534	
3,600.00	3,554.95	3,619.71	3,598.91	12.97	12.27	-170.52	-76.01	207.55	232.73	207.78	24.96	9.326	
3,700.00	3,652.69	3,720.06	3,697.45	13.35	12.63	-171.82	-89.42	220.89	234.92	209.22	25.69	9.143	
3,800.00	3,750.43	3,819.72	3,795.31	13.73	12.99	-173.15	-103.00	234.02	237.15	210.72	26.44	8.971	
3,900.00	3,848.17	3,919.57	3,893.38	14.12	13.35	-174.42	-116.41	247.19	239.62	212.44	27.18	8.816	
4,000.00	3,945.91	4,018.77	3,990.82	14.50	13.72	-175.51	-129.24	260.64	242.19	214.26	27.93	8.671	
4,100.00	4,043.65	4,116.02	4,086.47	14.88	14.07	-176.47	-141.12	273.52	245.50	216.82	28.69	8.558	
4,200.00	4,141.39	4,215.28	4,184.24	15.27	14.43	-177.54	-153.24	285.61	249.81	220.37	29.44	8.486	
4,300.00	4,239.13	4,314.73	4,282.09	15.65	14.80	-179.06	-167.20	296.62	254.17	223.98	30.19	8.419	
4,400.00	4,336.87	4,412.45	4,378.29	16.03	15.16	179.43	-180.98	306.93	259.14	228.19	30.95	8.373	
4,500.00	4,434.61	4,519.45	4,483.51	16.42	15.55	177.89	-196.18	318.93	263.66	231.97	31.69	8.321	
4,600.00	4,532.35	4,624.72	4,586.49	16.80	15.94	176.40	-212.60	333.31	265.46	233.04	32.42	8.188	
4,700.00	4,630.09	4,723.95	4,683.43	17.19	16.31	175.03	-228.31	347.56	266.70	233.51	33.19	8.036	
4,800.00	4,727.83	4,827.34	4,784.32	17.57	16.70	173.77	-244.35	363.46	267.26	233.33	33.93	7.876	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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	4,825.57	4,926.25	4,880.79	17.96	17.07	172.68	-259.42	379.25	267.52	232.82	34.70	7.709	
5,000.00	4,923.31	5,022.56	4,974.90	18.34	17.43	171.67	-273.58	394.06	268.64	233.16	35.49	7.570	
5,100.00	5,021.05	5,119.51	5,070.01	18.73	17.79	170.81	-286.59	407.61	271.65	235.39	36.26	7.492	
5,200.00	5,118.79	5,221.11	5,169.52	19.11	18.17	169.84	-300.86	422.30	274.03	237.01	37.02	7.402	
5,300.00	5,216.53	5,317.46	5,264.08	19.50	18.53	169.00	-313.82	435.50	277.42	239.63	37.79	7.340	
5,400.00	5,314.27	5,420.68	5,365.39	19.89	18.92	168.03	-328.02	449.17	281.23	242.68	38.55	7.294	
5,500.00	5,412.01	5,523.48	5,465.84	20.27	19.30	166.91	-343.61	464.51	283.04	243.72	39.32	7.199	
5,600.00	5,509.75	5,618.81	5,559.18	20.66	19.66	166.06	-357.07	478.49	285.51	245.41	40.10	7.120	
5,700.00	5,607.50	5,720.43	5,658.94	21.05	20.04	165.32	-370.43	492.42	289.26	248.40	40.86	7.079	
5,800.00	5,705.24	5,823.15	5,759.37	21.43	20.43	164.29	-385.75	507.59	291.53	249.90	41.63	7.003	
5,900.00	5,802.98	5,920.36	5,854.35	21.82	20.80	163.21	-400.86	521.78	293.91	251.50	42.41	6.930	
6,000.00	5,900.72	6,021.22	5,953.07	22.21	21.18	162.25	-415.70	536.10	296.98	253.80	43.18	6.878	
6,100.00	5,998.46	6,120.14	6,049.98	22.59	21.56	161.55	-429.19	550.67	299.84	255.89	43.95	6.822	
6,200.00	6,096.20	6,215.45	6,143.58	22.98	21.92	161.03	-441.26	563.99	303.69	258.97	44.73	6.790	
6,300.00	6,193.94	6,314.45	6,241.00	23.37	22.29	160.60	-453.13	576.97	308.56	263.07	45.49	6.783	
6,400.00	6,291.68	6,417.68	6,342.38	23.75	22.68	159.93	-466.86	590.76	312.95	266.69	46.26	6.765	
6,500.00	6,389.42	6,514.00	6,436.97	24.14	23.04	159.28	-479.88	603.43	317.54	270.51	47.03	6.752	
6,600.00	6,487.16	6,615.62	6,536.97	24.53	23.42	158.99	-491.55	617.24	322.08	274.28	47.80	6.738	
6,700.00	6,584.90	6,708.45	6,628.53	24.92	23.77	158.82	-501.52	628.79	327.89	279.34	48.55	6.754	
6,800.00	6,682.64	6,812.00	6,730.54	25.30	24.16	158.29	-514.60	640.87	334.19	284.86	49.33	6.775	
6,900.00	6,780.38	6,921.47	6,837.59	25.69	24.58	157.14	-532.21	655.38	338.40	288.29	50.11	6.753	
7,000.00	6,878.12	7,020.27	6,933.84	26.08	24.96	156.11	-548.50	670.59	340.55	289.65	50.89	6.691	
7,100.00	6,975.86	7,115.55	7,027.46	26.47	25.32	155.66	-560.81	683.32	345.19	293.53	51.67	6.681	
7,200.00	7,073.60	7,228.98	7,138.24	26.86	25.75	154.71	-578.28	700.18	348.17	295.73	52.43	6.640	
7,300.00	7,171.34	7,338.70	7,243.84	27.24	26.18	153.00	-600.23	720.27	347.27	294.09	53.19	6.529	
7,323.61	7,194.42	7,362.82	7,267.01	27.34	26.28	152.63	-605.00	725.02	346.78	293.41	53.37	6.497	
7,400.00	7,269.29	7,433.16	7,334.87	27.63	26.55	151.66	-617.78	738.35	345.02	291.01	54.01	6.388	
7,500.00	7,367.86	7,533.37	7,432.15	28.01	26.94	150.40	-633.53	756.53	341.12	286.33	54.79	6.226	
7,600.00	7,466.96	7,629.97	7,526.16	28.38	27.31	149.08	-647.26	774.05	334.40	278.83	55.57	6.018	
7,700.00	7,566.46	7,717.63	7,611.98	28.74	27.64	147.82	-658.21	788.09	327.02	270.69	56.33	5.805	
7,800.00	7,666.25	7,818.00	7,710.79	29.09	28.02	146.31	-668.98	802.05	318.96	261.89	57.07	5.589	
7,900.00	7,766.20	7,911.21	7,802.54	29.43	28.38	144.42	-679.22	814.79	308.52	250.73	57.79	5.339	
7,933.80	7,800.00	7,942.46	7,833.32	29.55	28.49	-96.26	-683.04	818.65	304.91	246.89	58.02	5.255	
8,000.00	7,866.20	8,003.86	7,893.84	29.76	28.73	-97.86	-690.66	825.66	298.36	239.89	58.46	5.103	
8,100.00	7,966.20	8,102.48	7,991.17	30.07	29.10	-100.51	-702.65	836.12	289.75	230.59	59.16	4.897	
8,200.00	8,066.20	8,208.04	8,094.95	30.39	29.50	-103.87	-716.89	849.02	280.53	220.63	59.90	4.683	
8,300.00	8,166.20	8,311.34	8,195.72	30.71	29.90	-108.06	-733.18	864.88	269.89	209.27	60.62	4.452	
8,400.00	8,266.20	8,406.48	8,288.67	31.04	30.26	-112.02	-747.29	879.41	260.44	199.11	61.33	4.247	
8,428.80	8,295.00	8,434.80	8,316.42	31.13	30.37	-113.17	-751.20	883.52	258.07	196.54	61.53	4.194	
8,450.00	8,316.20	8,455.75	8,336.96	31.20	30.45	105.22	-754.04	886.55	256.48	194.80	61.68	4.158	
8,500.00	8,366.02	8,505.06	8,385.32	31.38	30.64	104.36	-760.54	893.60	253.66	191.61	62.05	4.088	
8,550.00	8,415.30	8,553.86	8,433.24	31.56	30.82	104.36	-766.83	900.33	252.15	189.73	62.42	4.039	
8,580.31	8,444.75	8,583.26	8,462.15	31.68	30.94	104.78	-770.56	904.23	251.88	189.23	62.65	4.020	
8,600.00	8,463.67	8,601.74	8,480.32	31.75	31.01	105.20	-772.88	906.59	252.02	189.23	62.80	4.013	SF
8,650.00	8,510.75	8,648.16	8,526.06	31.95	31.18	106.80	-778.63	912.10	253.71	190.54	63.16	4.017	
8,700.00	8,556.19	8,693.08	8,570.40	32.16	31.35	108.99	-784.04	916.81	257.67	194.15	63.52	4.057	
8,750.00	8,599.64	8,735.67	8,612.56	32.37	31.51	111.57	-788.77	920.50	264.58	200.73	63.85	4.144	
8,800.00	8,640.77	8,776.55	8,653.14	32.58	31.66	114.34	-792.88	923.30	275.10	210.94	64.16	4.288	
8,850.00	8,679.28	8,817.41	8,693.76	32.80	31.81	117.25	-796.55	925.74	289.44	224.97	64.47	4.490	
8,900.00	8,714.85	8,855.09	8,731.27	33.02	31.95	119.80	-799.51	927.82	307.89	243.14	64.75	4.755	
8,950.00	8,747.24	8,895.19	8,771.19	33.24	32.09	122.43	-802.61	930.13	330.44	265.37	65.08	5.078	
9,000.00	8,776.18	8,935.14	8,810.84	33.45	32.24	124.69	-806.36	933.08	356.53	291.13	65.39	5.452	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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
9,050.00	8,801.45	8,971.40	8,846.74	33.67	32.37	126.14	-810.33	936.32	386.00	320.33	65.66	5.878	
9,100.00	8,822.88	9,002.01	8,877.00	33.88	32.49	126.50	-813.82	939.31	418.88	353.00	65.88	6.358	
9,150.00	8,840.29	9,029.03	8,903.70	34.09	32.59	125.91	-816.96	942.10	454.95	388.89	66.06	6.887	
9,178.80	8,848.43	9,042.86	8,917.35	34.21	32.64	125.07	-818.58	943.59	477.04	410.89	66.15	7.212	
9,200.00	8,853.73	9,052.39	8,926.76	34.30	32.68	125.34	-819.71	944.64	493.78	427.58	66.21	7.458	
9,300.00	8,873.56	9,091.84	8,965.66	34.70	32.83	125.10	-824.43	949.15	576.69	510.25	66.44	8.680	
9,400.00	8,884.77	9,123.24	8,996.60	35.10	32.94	122.27	-828.27	952.91	664.82	598.21	66.61	9.981	
9,478.80	8,887.48	9,141.92	9,014.99	35.42	33.02	117.70	-830.59	955.23	737.02	670.32	66.71	11.049	
9,500.00	8,887.48	9,146.21	9,019.21	35.50	33.03	118.49	-831.12	955.77	756.75	690.02	66.73	11.341	
9,600.00	8,887.48	9,171.06	9,043.64	35.91	33.13	122.83	-834.29	958.98	850.44	783.59	66.85	12.722	
9,700.00	8,887.48	9,198.51	9,070.59	36.33	33.23	127.19	-837.94	962.72	944.91	877.92	66.99	14.105	
9,800.00	8,887.48	9,228.82	9,100.28	36.78	33.35	131.51	-842.16	967.08	1,039.87	972.73	67.15	15.486	
9,900.00	8,887.48	9,251.29	9,122.27	37.25	33.43	134.40	-845.39	970.46	1,135.19	1,067.91	67.28	16.872	
10,000.00	8,887.48	10,902.15	10,012.10	37.74	38.41	166.34	-1,723.31	1,637.65	1,159.68	1,115.40	44.28	26.192	
10,100.00	8,887.48	10,976.00	10,013.11	38.24	38.63	165.34	-1,791.57	1,665.79	1,168.24	1,122.40	45.84	25.487	
10,133.80	8,887.48	10,995.20	10,013.46	38.41	38.69	165.05	-1,809.58	1,672.40	1,171.75	1,125.31	46.44	25.233	
10,200.00	8,887.48	11,043.04	10,014.25	38.76	38.83	164.13	-1,855.06	1,687.22	1,179.32	1,131.73	47.59	24.780	
10,300.00	8,887.48	11,110.36	10,015.24	39.29	39.04	162.71	-1,920.17	1,704.26	1,192.31	1,142.88	49.43	24.121	
10,400.00	8,887.48	11,177.23	10,016.60	39.83	39.24	161.24	-1,985.67	1,717.59	1,207.43	1,156.12	51.31	23.534	
10,500.00	8,887.48	11,257.00	10,018.03	40.37	39.48	159.50	-2,064.47	1,729.88	1,223.87	1,170.70	53.17	23.019	
10,600.00	8,887.48	11,371.07	10,019.60	40.92	39.83	157.38	-2,177.11	1,747.79	1,239.63	1,184.68	54.94	22.562	
10,700.00	8,887.48	11,466.34	10,020.86	41.47	40.14	155.83	-2,270.95	1,764.19	1,254.23	1,197.61	56.63	22.150	
10,800.00	8,887.47	11,564.49	10,022.03	42.02	40.47	154.45	-2,367.52	1,781.71	1,267.62	1,209.39	58.23	21.770	
10,900.00	8,887.47	11,650.76	10,023.36	42.56	40.78	153.34	-2,452.51	1,796.43	1,280.58	1,220.83	59.75	21.431	
11,000.00	8,887.47	11,752.91	10,024.66	43.11	41.14	152.23	-2,553.25	1,813.27	1,292.38	1,231.13	61.25	21.099	
11,100.00	8,887.47	11,850.25	10,025.74	43.65	41.50	151.33	-2,649.24	1,829.36	1,302.66	1,239.98	62.68	20.784	
11,200.00	8,887.46	11,940.13	10,027.08	44.18	41.85	150.65	-2,737.87	1,844.28	1,311.74	1,247.74	64.00	20.497	
11,300.00	8,887.46	12,020.93	10,028.08	44.71	42.16	150.06	-2,817.87	1,855.51	1,320.35	1,255.09	65.26	20.232	
11,400.00	8,887.46	12,102.24	10,029.35	45.22	42.47	149.52	-2,898.60	1,865.08	1,328.69	1,262.20	66.49	19.984	
11,500.00	8,887.45	12,196.00	10,030.61	45.73	42.84	149.01	-2,991.86	1,874.72	1,335.93	1,268.19	67.74	19.722	
11,600.00	8,887.45	12,280.64	10,030.87	46.23	43.17	148.55	-3,076.27	1,880.74	1,342.22	1,273.28	68.94	19.470	
11,700.00	8,887.45	12,375.16	10,030.74	46.72	43.55	148.08	-3,170.71	1,884.81	1,347.81	1,277.61	70.19	19.201	
11,800.00	8,887.44	12,466.65	10,030.78	47.20	43.91	147.75	-3,262.13	1,888.34	1,351.99	1,280.62	71.37	18.944	
11,900.00	8,887.44	12,551.15	10,030.70	47.67	44.26	147.51	-3,346.61	1,890.08	1,355.18	1,282.73	72.45	18.704	
12,000.00	8,887.43	12,646.35	10,030.27	48.13	44.64	147.30	-3,441.81	1,889.91	1,357.42	1,283.80	73.61	18.440	
12,078.43	8,887.43	12,724.96	10,029.80	48.48	44.97	147.23	-3,520.41	1,889.52	1,357.89	1,283.37	74.53	18.220	
12,100.00	8,887.43	12,746.63	10,029.72	48.57	45.06	147.23	-3,542.08	1,889.51	1,357.86	1,283.09	74.77	18.160	
12,200.00	8,887.42	12,845.37	10,029.44	49.01	45.47	147.21	-3,640.83	1,889.46	1,357.75	1,281.85	75.90	17.889	
12,300.00	8,887.42	12,949.57	10,029.00	49.47	45.92	147.19	-3,745.02	1,889.36	1,357.56	1,280.46	77.10	17.609	
12,400.00	8,887.41	13,045.40	10,028.77	49.92	46.34	147.19	-3,840.85	1,889.56	1,357.35	1,279.13	78.22	17.354	
12,498.18	8,887.41	13,142.78	10,028.44	50.38	46.78	147.16	-3,938.23	1,889.32	1,357.31	1,277.93	79.37	17.100	
12,500.00	8,887.41	13,144.46	10,028.43	50.39	46.79	147.16	-3,939.91	1,889.31	1,357.31	1,277.91	79.39	17.096	
12,600.00	8,887.40	13,237.69	10,028.04	50.86	47.21	147.11	-4,033.14	1,888.38	1,357.60	1,277.07	80.53	16.858	
12,700.00	8,887.40	13,343.81	10,027.74	51.34	47.70	147.07	-4,139.26	1,887.51	1,357.91	1,276.09	81.82	16.596	
12,800.00	8,887.39	13,450.21	10,027.31	51.82	48.20	147.06	-4,245.65	1,887.60	1,357.63	1,274.52	83.11	16.335	
12,900.00	8,887.39	13,552.10	10,026.87	52.31	48.69	147.05	-4,347.54	1,887.84	1,357.25	1,272.89	84.36	16.089	
13,000.00	8,887.38	13,654.23	10,025.86	52.81	49.18	147.02	-4,449.66	1,887.90	1,356.49	1,270.86	85.63	15.841	
13,100.00	8,887.37	13,745.81	10,024.84	53.31	49.63	146.97	-4,541.24	1,887.29	1,356.03	1,269.22	86.81	15.621	
13,110.26	8,887.37	13,754.85	10,024.76	53.37	49.68	146.96	-4,550.27	1,887.20	1,356.02	1,269.10	86.92	15.600	
13,200.00	8,887.37	13,846.30	10,024.31	53.82	50.13	146.92	-4,641.72	1,886.40	1,356.17	1,268.08	88.09	15.395	
13,300.00	8,887.36	13,952.74	10,023.65	54.34	50.67	146.90	-4,748.16	1,886.52	1,355.69	1,266.25	89.44	15.158	
13,368.71	8,887.36	14,013.36	10,023.35	54.69	50.98	146.90	-4,808.78	1,886.70	1,355.39	1,265.17	90.22	15.023	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy — **Offset Site Error:** 0.00 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 0.50 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
13,400.00	8,887.36	14,037.99	10,023.44	54.86	51.10	146.90	-4,833.40	1,886.76	1,355.47	1,264.93	90.54	14.972	
13,500.00	8,887.35	14,125.87	10,024.41	55.38	51.56	146.91	-4,921.28	1,886.61	1,356.58	1,264.92	91.66	14.800	
13,600.00	8,887.35	14,219.74	10,024.39	55.91	52.04	146.81	-5,015.12	1,884.08	1,358.14	1,265.22	92.91	14.617	
13,700.00	8,887.34	14,316.24	10,023.59	56.45	52.54	146.63	-5,111.49	1,879.42	1,360.20	1,265.95	94.24	14.433	
13,800.00	8,887.34	14,429.98	10,025.07	56.99	53.14	146.61	-5,225.21	1,878.26	1,361.98	1,266.25	95.73	14.227	
13,900.00	8,887.33	14,534.61	10,026.87	57.54	53.71	146.70	-5,329.81	1,879.65	1,362.79	1,265.72	97.07	14.039	
14,000.00	8,887.33	14,638.90	10,028.35	58.09	54.28	146.77	-5,434.09	1,880.94	1,363.40	1,264.99	98.41	13.854	
14,100.00	8,887.32	14,724.19	10,029.61	58.64	54.75	146.81	-5,519.36	1,881.52	1,364.38	1,264.85	99.53	13.709	
14,200.00	8,887.32	14,835.77	10,031.54	59.20	55.37	146.87	-5,630.93	1,882.18	1,365.63	1,264.64	100.99	13.522	
14,300.00	8,887.31	14,958.13	10,031.86	59.77	56.06	146.93	-5,753.27	1,883.94	1,365.09	1,262.49	102.60	13.305	
14,400.00	8,887.31	15,057.13	10,031.71	60.34	56.63	146.98	-5,852.26	1,885.43	1,364.26	1,260.34	103.92	13.128	
14,500.00	8,887.30	15,153.98	10,031.21	60.91	57.18	147.00	-5,949.10	1,886.52	1,363.32	1,258.10	105.23	12.956	
14,600.00	8,887.30	15,249.03	10,031.21	61.49	57.73	147.02	-6,044.15	1,887.29	1,362.98	1,256.47	106.51	12.796	
14,700.00	8,887.29	15,354.96	10,031.15	62.07	58.35	147.05	-6,150.07	1,888.33	1,362.50	1,254.55	107.95	12.622	
14,800.00	8,887.29	15,457.67	10,030.95	62.65	58.95	147.09	-6,252.77	1,889.92	1,361.60	1,252.26	109.34	12.453	
14,900.00	8,887.28	15,561.60	10,030.67	63.24	59.57	147.14	-6,356.69	1,891.68	1,360.56	1,249.81	110.75	12.285	
15,000.00	8,887.28	15,660.19	10,030.09	63.83	60.15	147.17	-6,455.26	1,893.18	1,359.35	1,247.25	112.10	12.126	
15,100.00	8,887.27	15,760.00	10,029.73	64.43	60.75	147.22	-6,555.06	1,894.85	1,358.25	1,244.79	113.47	11.971	
15,200.00	8,887.27	15,847.64	10,029.61	65.03	61.28	147.25	-6,642.69	1,895.94	1,357.58	1,242.90	114.67	11.839	
15,300.00	8,887.26	15,951.96	10,029.40	65.63	61.91	147.25	-6,747.00	1,896.33	1,357.31	1,241.18	116.13	11.688	
15,400.00	8,887.25	16,052.65	10,029.12	66.24	62.52	147.27	-6,847.69	1,897.11	1,356.76	1,239.23	117.53	11.543	
15,500.00	8,887.25	16,145.31	10,028.98	66.85	63.08	147.27	-6,940.35	1,897.56	1,356.48	1,237.65	118.83	11.415	
15,599.55	8,887.24	16,244.57	10,029.03	67.46	63.69	147.28	-7,039.61	1,897.92	1,356.43	1,236.20	120.23	11.282	
15,600.00	8,887.24	16,244.97	10,029.03	67.46	63.70	147.28	-7,040.01	1,897.92	1,356.43	1,236.20	120.23	11.282	
15,700.00	8,887.24	16,330.00	10,028.68	68.07	64.22	147.23	-7,125.03	1,896.95	1,356.83	1,235.39	121.44	11.173	
15,800.00	8,887.23	16,424.68	10,028.23	68.69	64.79	147.13	-7,219.68	1,894.47	1,357.97	1,235.17	122.81	11.058	
15,900.00	8,887.23	16,533.39	10,027.91	69.31	65.46	147.02	-7,328.36	1,891.90	1,359.11	1,234.71	124.40	10.926	
16,000.00	8,887.22	16,637.18	10,027.72	69.94	66.11	146.95	-7,432.14	1,890.31	1,359.90	1,234.01	125.90	10.802	
16,100.00	8,887.22	16,744.43	10,027.47	70.56	66.78	146.92	-7,539.38	1,889.71	1,360.11	1,232.67	127.44	10.672	
16,200.00	8,887.21	16,844.68	10,026.96	71.19	67.41	146.88	-7,639.62	1,889.03	1,360.16	1,231.27	128.89	10.553	
16,300.00	8,887.21	16,944.47	10,026.59	71.83	68.04	146.85	-7,739.41	1,888.62	1,360.18	1,229.86	130.32	10.437	
16,400.00	8,887.20	17,042.82	10,026.36	72.46	68.66	146.82	-7,837.76	1,888.28	1,360.28	1,228.54	131.74	10.325	
16,500.00	8,887.20	17,148.53	10,026.22	73.10	69.34	146.81	-7,943.48	1,888.15	1,360.36	1,227.09	133.27	10.208	
16,572.86	8,887.19	17,217.98	10,026.19	73.56	69.78	146.82	-8,012.93	1,888.58	1,360.17	1,225.90	134.26	10.131	
16,600.00	8,887.19	17,241.82	10,026.21	73.74	69.93	146.82	-8,036.76	1,888.60	1,360.20	1,225.60	134.60	10.105	
16,700.00	8,887.19	17,351.63	10,026.08	74.38	70.64	146.80	-8,146.57	1,888.40	1,360.33	1,224.13	136.20	9.988	
16,800.00	8,887.18	17,453.98	10,025.15	75.02	71.30	146.77	-8,248.92	1,888.33	1,359.71	1,222.02	137.69	9.875	
16,900.00	8,887.18	17,546.16	10,024.59	75.67	71.90	146.75	-8,341.09	1,888.29	1,359.33	1,220.31	139.02	9.778	
16,914.40	8,887.18	17,559.15	10,024.61	75.76	71.98	146.75	-8,354.08	1,888.35	1,359.33	1,220.12	139.21	9.765	
17,000.00	8,887.17	17,635.49	10,025.36	76.32	72.48	146.79	-8,430.41	1,889.13	1,359.65	1,219.36	140.29	9.692	
17,100.00	8,887.17	17,736.34	10,027.07	76.97	73.14	146.88	-8,531.24	1,890.61	1,360.37	1,218.64	141.73	9.599	
17,200.00	8,887.16	17,850.94	10,027.92	77.62	73.90	146.95	-8,645.82	1,892.23	1,360.30	1,216.92	143.39	9.487	
17,250.07	8,887.16	17,895.26	10,028.05	77.95	74.19	146.96	-8,690.14	1,892.69	1,360.20	1,216.18	144.02	9.444	
17,300.00	8,887.16	17,942.88	10,028.26	78.28	74.50	146.97	-8,737.76	1,892.95	1,360.29	1,215.58	144.71	9.400	
17,400.00	8,887.15	18,051.09	10,027.92	78.93	75.21	146.97	-8,845.97	1,893.13	1,360.03	1,213.74	146.30	9.296	
17,500.00	8,887.14	18,147.14	10,027.36	79.59	75.85	146.94	-8,942.02	1,893.03	1,359.71	1,212.00	147.70	9.206	
17,600.00	8,887.14	18,253.27	10,026.94	80.25	76.55	146.92	-9,048.15	1,892.73	1,359.65	1,210.39	149.27	9.109	
17,700.00	8,887.13	18,369.97	10,026.58	80.91	77.33	146.99	-9,164.80	1,895.37	1,358.23	1,207.28	150.96	8.998	
17,800.00	8,887.13	18,470.01	10,027.80	81.58	78.01	147.21	-9,264.67	1,900.92	1,356.35	1,204.00	152.35	8.903	
17,900.00	8,887.12	18,552.17	10,027.96	82.24	78.56	147.30	-9,346.80	1,903.31	1,355.08	1,201.54	153.53	8.826	
18,000.00	8,887.12	18,651.82	10,028.07	82.91	79.23	147.31	-9,446.44	1,903.97	1,354.91	1,199.92	154.99	8.742	
18,100.00	8,887.11	18,752.49	10,027.47	83.58	79.91	147.31	-9,547.11	1,904.37	1,354.30	1,197.82	156.48	8.655	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Offset Site Error: 0.00 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.50 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
18,200.00	8,887.11	18,859.95	10,026.49	84.25	80.63	147.28	-9,654.57	1,904.51	1,353.58	1,195.50	158.07	8.563	
18,300.00	8,887.10	18,952.11	10,025.38	84.92	81.25	147.25	-9,746.72	1,904.34	1,352.77	1,193.33	159.44	8.484	
18,400.00	8,887.10	19,059.40	10,024.89	85.60	81.98	147.26	-9,854.00	1,905.30	1,352.01	1,190.98	161.03	8.396	
18,500.00	8,887.09	19,158.00	10,024.21	86.27	82.65	147.28	-9,952.59	1,906.28	1,351.00	1,188.52	162.48	8.315	
18,600.00	8,887.09	19,252.55	10,023.77	86.95	83.30	147.28	-10,047.14	1,906.97	1,350.31	1,186.43	163.87	8.240	
18,700.00	8,887.08	19,353.74	10,023.26	87.63	83.99	147.28	-10,148.33	1,907.45	1,349.74	1,184.36	165.38	8.162	
18,800.00	8,887.08	19,455.58	10,022.60	88.31	84.68	147.28	-10,250.17	1,907.86	1,349.08	1,182.19	166.89	8.084	
18,900.00	8,887.07	19,554.73	10,021.99	88.99	85.36	147.28	-10,349.31	1,908.60	1,348.27	1,179.90	168.36	8.008	
19,000.00	8,887.07	19,652.47	10,021.46	89.67	86.03	147.27	-10,447.05	1,908.90	1,347.75	1,177.93	169.81	7.937	
19,100.00	8,887.06	19,755.80	10,020.90	90.36	86.74	147.27	-10,550.38	1,909.45	1,347.11	1,175.75	171.35	7.862	
19,200.00	8,887.06	19,855.17	10,019.93	91.04	87.42	147.25	-10,649.74	1,909.62	1,346.30	1,173.47	172.84	7.789	
19,300.00	8,887.05	19,952.76	10,018.71	91.73	88.09	147.20	-10,747.32	1,909.04	1,345.68	1,171.38	174.31	7.720	
19,400.00	8,887.05	20,045.78	10,018.65	92.42	88.74	147.21	-10,840.34	1,909.70	1,345.35	1,169.67	175.68	7.658	
19,403.46	8,887.05	20,048.93	10,018.66	92.44	88.76	147.21	-10,843.49	1,909.74	1,345.35	1,169.62	175.73	7.656	
19,500.00	8,887.04	20,148.16	10,019.39	93.11	89.45	147.27	-10,942.71	1,911.03	1,345.37	1,168.17	177.20	7.593	
19,600.00	8,887.04	20,257.43	10,019.08	93.80	90.20	147.28	-11,051.97	1,911.83	1,344.83	1,166.00	178.83	7.520	
19,700.00	8,887.03	20,350.12	10,018.06	94.49	90.85	147.24	-11,144.65	1,911.54	1,344.19	1,163.97	180.22	7.458	
19,800.00	8,887.02	20,449.00	10,017.60	95.18	91.53	147.23	-11,243.53	1,911.73	1,343.80	1,162.10	181.70	7.396	
19,867.46	8,887.02	20,512.96	10,017.81	95.65	91.98	147.26	-11,307.49	1,912.47	1,343.64	1,160.99	182.65	7.356	
19,900.00	8,887.02	20,542.00	10,018.12	95.87	92.18	147.28	-11,336.52	1,912.95	1,343.68	1,160.60	183.07	7.340	
20,000.00	8,887.01	20,637.60	10,019.26	96.57	92.85	147.35	-11,432.11	1,914.17	1,344.09	1,159.61	184.48	7.286	
20,100.00	8,887.01	20,672.00	10,019.63	97.26	93.09	147.36	-11,466.50	1,914.45	1,346.28	1,161.60	184.68	7.290	
20,200.00	8,887.00	20,672.00	10,019.63	97.96	93.09	147.36	-11,466.50	1,914.45	1,355.42	1,171.85	183.57	7.384	
20,266.44	8,887.00	20,672.00	10,019.63	98.42	93.09	147.36	-11,466.50	1,914.45	1,365.52	1,183.09	182.43	7.485	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-75.88	247.32	-983.49	1,014.12				
100.00	100.00	96.12	96.12	0.28	0.15	-75.89	247.38	-983.84	1,014.49	1,014.06	0.43	2,356.043	
200.00	200.00	188.89	188.88	0.63	0.30	-75.89	247.54	-984.85	1,015.59	1,014.65	0.94	1,083.259	
300.00	300.00	288.43	288.41	0.99	0.61	-75.91	247.54	-986.45	1,017.14	1,015.54	1.60	633.983	
400.00	400.00	389.32	389.29	1.35	0.97	-75.93	247.52	-987.92	1,018.56	1,016.24	2.32	438.375	
500.00	500.00	487.21	487.17	1.71	1.32	-75.91	248.24	-989.26	1,020.07	1,017.04	3.03	336.485	
600.00	600.00	586.22	586.16	2.07	1.68	-75.88	249.28	-990.64	1,021.68	1,017.93	3.74	272.965	
700.00	700.00	676.93	676.84	2.43	2.00	-75.94	248.63	-992.85	1,023.86	1,019.44	4.42	231.442	
800.00	800.00	771.24	771.07	2.79	2.34	-76.07	246.98	-996.07	1,026.75	1,021.63	5.12	200.586	
900.00	900.00	872.01	871.76	3.14	2.70	-76.22	245.19	-1,000.00	1,030.11	1,024.27	5.84	176.474	
1,000.00	1,000.00	995.41	995.07	3.50	3.14	-76.42	242.28	-1,003.32	1,032.20	1,025.56	6.63	155.572	
1,100.00	1,100.00	1,151.30	1,150.84	3.86	3.67	-76.68	237.14	-1,001.33	1,030.12	1,022.59	7.52	136.967	
1,200.00	1,200.00	1,254.73	1,254.13	4.22	4.02	-76.79	233.94	-996.92	1,025.25	1,017.02	8.23	124.643	
1,300.00	1,299.98	1,347.95	1,347.23	4.56	4.33	163.16	231.46	-992.97	1,022.20	1,013.31	8.89	115.017	
1,320.23	1,320.19	1,365.57	1,364.83	4.63	4.39	163.17	231.14	-992.30	1,022.10	1,013.09	9.02	113.370	ES
1,400.00	1,399.84	1,430.80	1,430.02	4.90	4.61	163.21	230.52	-990.12	1,023.63	1,014.12	9.51	107.657	
1,500.00	1,499.45	1,502.00	1,501.21	5.24	4.86	163.30	230.85	-989.07	1,030.68	1,020.59	10.09	102.117	
1,600.00	1,598.70	1,585.52	1,584.71	5.58	5.14	163.46	232.27	-989.42	1,043.18	1,032.46	10.72	97.297	
1,700.00	1,697.47	1,675.71	1,674.87	5.93	5.46	163.69	234.52	-990.86	1,060.32	1,048.94	11.38	93.196	
1,800.00	1,795.62	1,765.62	1,764.72	6.28	5.77	163.94	237.13	-992.81	1,081.44	1,069.41	12.03	89.862	
1,810.29	1,805.68	1,774.78	1,773.88	6.32	5.81	163.83	237.42	-993.05	1,083.84	1,071.74	12.10	89.539	
1,900.00	1,893.37	1,882.11	1,881.14	6.63	6.18	164.28	240.28	-995.08	1,104.34	1,091.55	12.79	86.325	
2,000.00	1,991.11	2,026.53	2,025.54	6.99	6.68	164.78	241.22	-993.67	1,123.93	1,110.29	13.64	82.400	
2,100.00	2,088.85	2,126.96	2,125.92	7.35	7.02	165.07	240.55	-990.42	1,141.12	1,126.79	14.34	79.592	
2,200.00	2,186.59	2,221.35	2,220.27	7.72	7.35	165.32	239.67	-988.13	1,159.04	1,144.03	15.02	77.174	
2,300.00	2,284.33	2,336.29	2,335.15	8.08	7.75	165.59	238.10	-984.84	1,176.49	1,160.71	15.77	74.582	
2,400.00	2,382.07	2,432.48	2,431.26	8.45	8.08	165.78	235.76	-981.43	1,192.99	1,176.52	16.47	72.432	
2,500.00	2,479.81	2,490.59	2,489.34	8.82	8.28	165.88	234.48	-980.28	1,211.18	1,194.15	17.03	71.126	
2,600.00	2,577.55	2,541.00	2,539.73	9.19	8.46	165.97	234.03	-981.14	1,233.10	1,215.56	17.54	70.321	
2,700.00	2,675.29	2,613.87	2,612.52	9.57	8.72	166.10	234.13	-984.67	1,258.12	1,239.99	18.13	69.410	
2,800.00	2,773.03	2,695.82	2,694.32	9.94	9.00	166.26	234.67	-989.51	1,284.36	1,265.61	18.76	68.481	
2,900.00	2,870.77	2,858.99	2,857.32	10.32	9.58	166.60	236.02	-995.80	1,308.83	1,289.07	19.76	66.224	
3,000.00	2,968.51	2,964.34	2,962.67	10.70	9.95	166.84	236.55	-996.77	1,330.44	1,309.93	20.51	64.878	
3,100.00	3,066.25	3,082.31	3,080.64	11.07	10.36	167.12	237.40	-996.62	1,351.18	1,329.88	21.30	63.434	
3,200.00	3,163.99	3,184.86	3,183.18	11.45	10.72	167.38	238.20	-995.18	1,370.73	1,348.70	22.03	62.225	
3,300.00	3,261.73	3,283.66	3,281.97	11.83	11.06	167.62	238.94	-993.73	1,390.25	1,367.51	22.74	61.130	
3,400.00	3,359.47	3,471.87	3,469.97	12.21	11.71	168.03	237.97	-985.72	1,406.97	1,383.18	23.79	59.149	
3,500.00	3,457.21	3,623.18	3,620.59	12.59	12.24	168.32	233.91	-972.03	1,418.36	1,393.69	24.66	57.507	
3,600.00	3,554.95	3,788.33	3,784.14	12.97	12.83	168.44	222.87	-952.18	1,425.67	1,400.12	25.55	55.808	
3,700.00	3,652.69	3,961.23	3,953.65	13.35	13.45	168.22	200.89	-926.31	1,428.23	1,401.83	26.40	54.097	
3,706.79	3,659.33	3,973.46	3,965.56	13.38	13.50	168.20	199.05	-924.22	1,428.21	1,401.75	26.46	53.981	
3,800.00	3,750.43	4,056.97	4,046.98	13.73	13.81	168.05	186.74	-910.33	1,428.39	1,401.26	27.13	52.650	
3,900.00	3,848.17	4,162.14	4,149.46	14.12	14.21	167.86	171.11	-892.62	1,428.40	1,400.53	27.88	51.242	
4,000.00	3,945.91	4,269.10	4,253.59	14.50	14.63	167.67	155.10	-874.15	1,427.97	1,399.35	28.63	49.881	
4,100.00	4,043.65	4,374.63	4,356.23	14.88	15.04	167.48	139.21	-855.47	1,427.12	1,397.74	29.38	48.574	
4,200.00	4,141.39	4,465.05	4,444.17	15.27	15.40	167.33	125.71	-839.31	1,426.16	1,396.05	30.12	47.357	
4,221.31	4,162.22	4,481.23	4,459.93	15.35	15.47	167.30	123.39	-836.51	1,426.12	1,395.86	30.27	47.118	
4,300.00	4,239.13	4,545.96	4,523.13	15.65	15.73	167.21	114.51	-825.75	1,426.60	1,395.77	30.83	46.266	
4,400.00	4,336.87	4,644.66	4,619.63	16.03	16.12	167.09	101.29	-809.73	1,427.73	1,396.14	31.58	45.204	
4,500.00	4,434.61	4,752.23	4,724.72	16.42	16.56	166.95	86.86	-791.87	1,428.50	1,396.15	32.35	44.156	
4,600.00	4,532.35	4,854.90	4,824.96	16.80	16.98	166.82	73.07	-774.46	1,428.92	1,395.81	33.11	43.154	
4,700.00	4,630.09	4,956.11	4,923.75	17.19	17.40	166.69	59.41	-757.22	1,429.25	1,395.38	33.87	42.195	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.00	4,727.83	5,055.12	5,020.35	17.57	17.81	166.55	45.65	-740.41	1,429.54	1,394.91	34.63	41.278	
4,900.00	4,825.57	5,150.17	5,112.99	17.96	18.21	166.36	31.09	-724.91	1,430.05	1,394.66	35.39	40.410	
5,000.00	4,923.31	5,238.91	5,199.55	18.34	18.59	166.18	17.51	-710.91	1,431.10	1,394.96	36.13	39.606	
5,100.00	5,021.05	5,328.76	5,287.42	18.73	18.97	166.01	4.60	-697.27	1,433.02	1,396.14	36.88	38.857	
5,200.00	5,118.79	5,425.55	5,382.20	19.11	19.37	165.86	-8.70	-682.86	1,435.41	1,397.78	37.64	38.136	
5,300.00	5,216.53	5,519.72	5,474.46	19.50	19.77	165.72	-21.49	-668.94	1,437.98	1,399.59	38.39	37.454	
5,400.00	5,314.27	5,618.51	5,571.36	19.89	20.19	165.59	-34.29	-654.61	1,441.01	1,401.85	39.16	36.799	
5,500.00	5,412.01	5,719.94	5,670.83	20.27	20.61	165.46	-47.37	-639.69	1,443.86	1,403.93	39.93	36.159	
5,600.00	5,509.75	5,819.00	5,767.99	20.66	21.03	165.34	-60.05	-625.11	1,446.73	1,406.03	40.70	35.547	
5,700.00	5,607.50	5,914.57	5,861.76	21.05	21.44	165.24	-72.06	-611.13	1,449.76	1,408.30	41.46	34.970	
5,800.00	5,705.24	6,006.96	5,952.52	21.43	21.83	165.15	-83.20	-597.87	1,453.22	1,411.01	42.21	34.430	
5,900.00	5,802.98	6,134.21	6,077.49	21.82	22.37	165.06	-97.78	-578.85	1,456.32	1,413.28	43.04	33.835	
6,000.00	5,900.72	6,254.57	6,195.20	22.21	22.89	164.96	-112.65	-558.65	1,457.28	1,413.42	43.86	33.228	
6,100.00	5,998.46	6,350.25	6,288.61	22.59	23.31	164.85	-125.50	-542.37	1,457.77	1,413.14	44.63	32.666	
6,200.00	6,096.20	6,434.57	6,370.98	22.98	23.68	164.72	-137.28	-528.80	1,459.01	1,413.64	45.37	32.158	
6,300.00	6,193.94	6,504.00	6,439.02	23.37	23.98	164.64	-146.36	-518.32	1,461.61	1,415.54	46.07	31.727	
6,400.00	6,291.68	6,580.37	6,514.12	23.75	24.30	164.55	-155.68	-508.05	1,466.03	1,419.26	46.77	31.345	
6,500.00	6,389.42	6,660.99	6,593.66	24.14	24.64	164.47	-165.00	-498.74	1,472.34	1,424.87	47.48	31.013	
6,600.00	6,487.16	6,817.48	6,747.77	24.53	25.30	164.30	-183.82	-479.35	1,478.02	1,429.59	48.43	30.520	
6,700.00	6,584.90	6,942.61	6,870.42	24.92	25.84	164.25	-197.75	-458.87	1,479.66	1,430.40	49.26	30.037	
6,800.00	6,682.64	7,041.06	6,966.86	25.30	26.27	164.22	-208.66	-442.35	1,481.02	1,430.99	50.03	29.602	
6,900.00	6,780.38	7,129.61	7,053.64	25.69	26.66	164.18	-218.62	-427.83	1,482.74	1,431.96	50.78	29.200	
7,000.00	6,878.12	7,210.44	7,133.05	26.08	27.00	164.17	-226.91	-415.26	1,485.53	1,434.03	51.50	28.845	
7,100.00	6,975.86	7,287.07	7,208.58	26.47	27.32	164.20	-233.72	-404.19	1,489.76	1,437.56	52.20	28.542	
7,200.00	7,073.60	7,362.48	7,283.14	26.86	27.63	164.26	-238.93	-394.24	1,495.68	1,442.81	52.87	28.289	
7,300.00	7,171.34	7,462.55	7,382.22	27.24	28.04	164.38	-245.05	-381.55	1,502.33	1,448.71	53.63	28.015	
7,323.61	7,194.42	7,484.80	7,404.25	27.34	28.13	164.40	-246.42	-378.74	1,503.92	1,450.12	53.80	27.954	
7,400.00	7,269.29	7,557.84	7,476.58	27.63	28.42	164.50	-250.81	-369.63	1,508.20	1,453.84	54.36	27.744	
7,500.00	7,367.86	7,654.60	7,572.42	28.01	28.81	164.58	-256.60	-357.61	1,510.90	1,455.80	55.09	27.424	
7,600.00	7,466.96	7,732.00	7,649.18	28.38	29.11	164.62	-260.80	-348.63	1,511.20	1,455.46	55.74	27.111	
7,700.00	7,566.46	7,818.14	7,734.74	28.74	29.45	164.64	-264.89	-339.56	1,509.33	1,452.93	56.41	26.758	
7,800.00	7,666.25	7,890.91	7,807.14	29.09	29.72	164.62	-267.78	-332.74	1,505.44	1,448.45	57.00	26.413	
7,900.00	7,766.20	7,971.94	7,887.88	29.43	30.03	164.59	-270.05	-326.36	1,499.90	1,442.30	57.60	26.040	
7,933.80	7,800.00	8,001.71	7,917.56	29.55	30.13	-75.29	-270.79	-324.17	1,497.47	1,439.66	57.81	25.903	
8,000.00	7,866.20	8,070.55	7,986.19	29.76	30.39	-75.30	-272.55	-319.21	1,492.43	1,434.16	58.27	25.612	
8,100.00	7,966.20	8,177.38	8,092.66	30.07	30.79	-75.38	-276.65	-311.38	1,484.36	1,425.38	58.98	25.166	
8,200.00	8,066.20	8,272.31	8,187.16	30.39	31.14	-75.55	-282.79	-304.93	1,476.16	1,416.51	59.65	24.749	
8,300.00	8,166.20	8,363.36	8,277.78	30.71	31.49	-75.76	-289.87	-299.56	1,468.50	1,408.21	60.29	24.356	
8,400.00	8,266.20	8,455.97	8,369.98	31.04	31.84	-75.99	-296.99	-294.60	1,461.42	1,400.47	60.95	23.979	
8,428.80	8,295.00	8,482.87	8,396.78	31.13	31.94	-76.05	-299.01	-293.22	1,459.46	1,398.33	61.14	23.872	
8,450.00	8,316.20	8,488.00	8,401.88	31.20	31.96	143.00	-299.39	-292.96	1,458.44	1,397.25	61.19	23.834	
8,472.25	8,338.41	8,516.49	8,430.26	31.28	32.06	142.99	-301.46	-291.61	1,457.99	1,396.60	61.39	23.750	
8,500.00	8,366.02	8,537.32	8,451.03	31.38	32.14	142.95	-302.90	-290.72	1,458.59	1,397.04	61.55	23.698	
8,550.00	8,415.30	8,583.00	8,496.58	31.56	32.30	142.80	-305.85	-289.07	1,462.74	1,400.85	61.89	23.635	
8,600.00	8,463.67	8,610.85	8,524.37	31.75	32.40	142.43	-307.49	-288.27	1,470.70	1,408.58	62.12	23.675	
8,650.00	8,510.75	8,645.91	8,559.37	31.95	32.53	141.91	-309.35	-287.50	1,482.55	1,420.15	62.39	23.761	
8,700.00	8,556.19	8,680.57	8,593.99	32.16	32.65	141.19	-310.97	-286.99	1,498.15	1,435.48	62.67	23.907	
8,750.00	8,599.64	8,723.51	8,636.89	32.37	32.79	140.37	-312.77	-286.48	1,517.22	1,454.22	63.00	24.085	
8,800.00	8,640.77	8,764.22	8,677.57	32.58	32.93	139.34	-314.34	-286.00	1,539.51	1,476.20	63.31	24.317	
8,850.00	8,679.28	8,798.90	8,712.23	32.80	33.05	137.97	-315.60	-285.63	1,564.95	1,501.37	63.58	24.613	
8,900.00	8,714.85	8,830.16	8,743.46	33.02	33.16	136.22	-316.72	-285.41	1,593.45	1,529.62	63.83	24.965	
8,950.00	8,747.24	8,858.64	8,771.92	33.24	33.25	134.04	-317.74	-285.31	1,624.82	1,560.76	64.05	25.367	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.00	8,776.18	9,870.00	9,644.24	33.45	38.26	145.28	-595.02	-87.20	1,642.13	1,577.66	64.47	25.471	
9,050.00	8,801.45	9,885.07	9,651.41	33.67	38.35	144.16	-608.16	-85.40	1,657.32	1,592.22	65.09	25.460	
9,100.00	8,822.88	9,902.00	9,659.18	33.88	38.45	142.70	-623.11	-83.77	1,676.62	1,610.96	65.66	25.536	
9,150.00	8,840.29	9,934.00	9,673.04	34.09	38.63	140.71	-651.88	-81.78	1,699.66	1,633.47	66.18	25.682	
9,178.80	8,848.43	9,934.00	9,673.04	34.21	38.63	139.59	-651.88	-81.78	1,714.58	1,648.15	66.43	25.810	
9,200.00	8,853.73	9,948.86	9,679.06	34.30	38.71	138.97	-665.45	-81.36	1,726.10	1,659.47	66.63	25.907	
9,300.00	8,873.56	10,063.00	9,713.81	34.70	39.30	134.97	-773.86	-85.89	1,784.48	1,716.74	67.74	26.343	
9,400.00	8,884.77	10,397.14	9,740.15	35.10	41.19	126.62	-1,105.48	-108.78	1,842.43	1,771.68	70.75	26.041	
9,478.80	8,887.48	10,492.71	9,742.82	35.42	41.84	123.20	-1,201.00	-108.86	1,886.06	1,814.11	71.95	26.215	
9,500.00	8,887.48	10,538.75	9,744.64	35.50	42.18	122.69	-1,246.99	-107.85	1,897.97	1,825.51	72.46	26.194	
9,600.00	8,887.48	10,665.19	9,748.32	35.91	43.15	121.39	-1,373.24	-101.95	1,951.79	1,877.74	74.05	26.356	
9,700.00	8,887.48	10,762.30	9,750.42	36.33	43.94	120.45	-1,470.19	-96.79	2,005.47	1,930.07	75.40	26.597	
9,800.00	8,887.48	10,842.94	9,750.30	36.78	44.62	119.65	-1,550.73	-92.82	2,058.91	1,982.30	76.61	26.876	
9,900.00	8,887.48	10,881.00	9,750.16	37.25	44.94	119.28	-1,588.75	-91.09	2,113.22	2,035.91	77.32	27.332	
10,000.00	8,887.48	10,944.33	9,749.94	37.74	45.49	118.68	-1,652.05	-89.13	2,168.68	2,090.36	78.32	27.689	
10,100.00	8,887.48	10,998.39	9,749.83	38.24	45.96	118.16	-1,706.11	-88.70	2,225.89	2,146.68	79.21	28.101	
10,133.80	8,887.48	11,028.82	9,749.75	38.41	46.22	117.88	-1,736.54	-88.51	2,245.36	2,165.69	79.67	28.184	
10,200.00	8,887.48	11,086.98	9,749.55	38.76	46.74	116.95	-1,794.69	-88.02	2,282.87	2,202.33	80.55	28.342	
10,300.00	8,887.48	11,163.00	9,749.12	39.29	47.43	115.77	-1,870.71	-87.32	2,337.48	2,255.75	81.72	28.602	
10,400.00	8,887.48	11,240.81	9,748.65	39.83	48.15	114.70	-1,948.51	-86.78	2,389.79	2,306.85	82.93	28.816	
10,500.00	8,887.48	11,332.40	9,748.45	40.37	49.02	113.68	-2,040.10	-86.20	2,439.69	2,355.35	84.34	28.927	
10,600.00	8,887.48	11,410.87	9,748.94	40.92	49.78	112.86	-2,118.57	-85.32	2,486.80	2,401.24	85.57	29.063	
10,700.00	8,887.48	11,494.63	9,750.15	41.47	50.60	112.12	-2,202.31	-84.51	2,531.52	2,444.65	86.88	29.140	
10,800.00	8,887.47	11,597.92	9,749.30	42.02	51.64	111.34	-2,305.60	-84.16	2,573.28	2,484.78	88.50	29.076	
10,900.00	8,887.47	11,703.30	9,747.96	42.56	52.73	110.64	-2,410.96	-83.21	2,611.51	2,521.32	90.18	28.958	
11,000.00	8,887.47	11,791.05	9,746.58	43.11	53.64	110.08	-2,498.70	-82.32	2,646.60	2,555.00	91.60	28.893	
11,100.00	8,887.47	11,897.01	9,744.65	43.65	54.77	109.53	-2,604.64	-81.42	2,678.75	2,585.43	93.32	28.704	
11,200.00	8,887.46	11,983.29	9,743.12	44.18	55.71	109.10	-2,690.90	-80.40	2,707.53	2,612.79	94.73	28.581	
11,300.00	8,887.46	12,069.43	9,741.69	44.71	56.65	108.73	-2,777.02	-79.78	2,733.63	2,637.49	96.14	28.433	
11,400.00	8,887.46	12,180.02	9,740.25	45.22	57.87	108.36	-2,887.60	-78.90	2,756.61	2,658.63	97.98	28.135	
11,500.00	8,887.45	12,274.08	9,738.49	45.73	58.93	108.08	-2,981.64	-77.93	2,775.98	2,676.44	99.54	27.889	
11,600.00	8,887.45	12,384.28	9,736.80	46.23	60.19	107.82	-3,091.82	-76.68	2,792.11	2,690.73	101.39	27.539	
11,700.00	8,887.45	12,488.55	9,735.02	46.72	61.39	107.62	-3,196.06	-75.10	2,804.56	2,701.41	103.15	27.190	
11,800.00	8,887.44	12,574.00	9,734.12	47.20	62.39	107.49	-3,281.49	-73.84	2,813.93	2,709.36	104.57	26.910	
11,900.00	8,887.44	12,652.95	9,733.91	47.67	63.31	107.41	-3,360.44	-72.98	2,820.59	2,714.73	105.86	26.644	
12,000.00	8,887.43	12,768.04	9,733.72	48.13	64.67	107.36	-3,475.52	-71.91	2,824.13	2,716.30	107.82	26.192	
12,078.43	8,887.43	12,824.43	9,733.69	48.48	65.34	107.36	-3,531.91	-71.42	2,824.61	2,715.87	108.74	25.977	
12,100.00	8,887.43	12,840.59	9,733.66	48.57	65.53	107.36	-3,548.07	-71.35	2,824.56	2,715.56	109.00	25.914	
12,200.00	8,887.42	12,951.64	9,733.97	49.01	66.86	107.37	-3,659.12	-70.78	2,824.34	2,713.44	110.90	25.468	
12,252.52	8,887.42	12,988.76	9,734.33	49.25	67.31	107.37	-3,696.24	-70.50	2,824.20	2,712.70	111.50	25.328	
12,300.00	8,887.42	13,022.92	9,734.74	49.47	67.72	107.38	-3,730.39	-70.39	2,824.31	2,712.25	112.06	25.203	
12,400.00	8,887.41	13,116.67	9,736.20	49.92	68.86	107.41	-3,824.13	-70.44	2,825.01	2,711.35	113.66	24.856	
12,500.00	8,887.41	13,226.95	9,738.09	50.39	70.21	107.45	-3,934.40	-70.26	2,825.55	2,709.96	115.59	24.445	
12,600.00	8,887.40	13,347.23	9,740.70	50.86	71.70	107.50	-4,054.64	-69.14	2,825.48	2,707.75	117.73	24.000	
12,700.00	8,887.40	13,445.15	9,742.51	51.34	72.92	107.54	-4,152.54	-67.89	2,825.00	2,705.55	119.45	23.650	
12,737.40	8,887.39	13,473.73	9,743.10	51.52	73.27	107.56	-4,181.11	-67.60	2,824.95	2,705.01	119.94	23.553	
12,800.00	8,887.39	13,512.00	9,744.07	51.82	73.75	107.58	-4,219.36	-67.31	2,825.13	2,704.57	120.56	23.433	
12,900.00	8,887.39	13,567.35	9,745.57	52.31	74.44	107.60	-4,274.70	-67.56	2,826.66	2,705.22	121.44	23.277	
13,000.00	8,887.38	13,626.19	9,747.00	52.81	75.17	107.62	-4,333.49	-69.09	2,829.96	2,707.60	122.36	23.128	
13,100.00	8,887.37	13,719.80	9,748.88	53.31	76.33	107.64	-4,427.03	-72.24	2,833.96	2,709.94	124.02	22.852	
13,200.00	8,887.37	13,831.27	9,751.38	53.82	77.72	107.66	-4,538.40	-76.12	2,838.17	2,712.11	126.05	22.516	
13,300.00	8,887.36	14,053.71	9,751.69	54.34	80.54	107.65	-4,760.81	-78.12	2,838.67	2,708.27	130.40	21.769	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM

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
13,400.00	8,887.36	14,161.37	9,751.21	54.86	81.93	107.65	-4,868.47	-77.27	2,837.96	2,705.56	132.40	21.435	
13,500.00	8,887.35	14,260.38	9,750.88	55.38	83.21	107.64	-4,967.47	-76.28	2,837.09	2,702.86	134.23	21.136	
13,600.00	8,887.35	14,348.31	9,751.15	55.91	84.35	107.65	-5,055.40	-75.45	2,836.46	2,700.62	135.84	20.881	
13,700.00	8,887.34	14,442.45	9,751.77	56.45	85.57	107.67	-5,149.53	-74.78	2,836.16	2,698.58	137.59	20.614	
13,800.00	8,887.34	14,535.73	9,752.45	56.99	86.79	107.68	-5,242.80	-74.30	2,836.07	2,696.76	139.32	20.357	
13,837.47	8,887.34	14,577.77	9,752.80	57.20	87.34	107.69	-5,284.84	-74.10	2,836.07	2,695.95	140.12	20.241	
13,900.00	8,887.33	14,649.19	9,753.23	57.54	88.27	107.70	-5,356.26	-73.58	2,835.86	2,694.39	141.48	20.045	
14,000.00	8,887.33	14,743.77	9,753.02	58.09	89.51	107.70	-5,450.84	-73.14	2,835.53	2,692.28	143.25	19.794	
14,100.00	8,887.32	14,847.49	9,752.34	58.64	90.87	107.69	-5,554.56	-72.82	2,835.22	2,689.99	145.23	19.522	
14,200.00	8,887.32	14,952.75	9,751.78	59.20	92.26	107.68	-5,659.81	-72.29	2,834.76	2,687.51	147.25	19.252	
14,300.00	8,887.31	15,050.88	9,751.44	59.77	93.56	107.68	-5,757.94	-71.56	2,834.12	2,685.00	149.12	19.006	
14,400.00	8,887.31	15,157.48	9,751.46	60.34	94.97	107.68	-5,864.54	-70.93	2,833.76	2,682.58	151.18	18.745	
14,500.00	8,887.30	15,258.01	9,751.16	60.91	96.31	107.68	-5,965.06	-69.77	2,832.75	2,679.64	153.11	18.501	
14,600.00	8,887.30	15,350.28	9,750.84	61.49	97.54	107.68	-6,057.32	-69.22	2,832.24	2,677.36	154.88	18.287	
14,700.00	8,887.29	15,441.88	9,750.41	62.07	98.76	107.67	-6,148.93	-68.77	2,831.83	2,675.19	156.64	18.079	
14,800.00	8,887.29	15,558.23	9,750.06	62.65	100.32	107.66	-6,265.27	-68.40	2,831.65	2,672.72	158.93	17.817	
14,900.00	8,887.28	15,656.07	9,749.78	63.24	101.63	107.66	-6,363.11	-67.43	2,830.80	2,669.98	160.83	17.601	
15,000.00	8,887.28	15,742.64	9,749.80	63.83	102.80	107.67	-6,449.67	-66.84	2,830.35	2,667.85	162.49	17.418	
15,100.00	8,887.27	15,871.16	9,750.26	64.43	104.53	107.68	-6,578.19	-65.58	2,829.72	2,664.67	165.05	17.144	
15,200.00	8,887.27	15,954.74	9,750.30	65.03	105.66	107.69	-6,661.76	-64.60	2,828.80	2,662.13	166.67	16.973	
15,300.00	8,887.26	16,054.98	9,750.25	65.63	107.02	107.69	-6,761.99	-63.75	2,828.15	2,659.52	168.64	16.771	
15,400.00	8,887.25	16,151.46	9,750.20	66.24	108.32	107.69	-6,858.48	-62.97	2,827.54	2,657.01	170.53	16.581	
15,500.00	8,887.25	16,236.59	9,750.02	66.85	109.48	107.69	-6,943.60	-62.64	2,827.29	2,655.11	172.18	16.420	
15,549.74	8,887.25	16,289.29	9,750.04	67.15	110.19	107.69	-6,996.31	-62.50	2,827.27	2,654.03	173.23	16.321	
15,600.00	8,887.24	16,342.22	9,750.37	67.46	110.91	107.70	-7,049.23	-62.21	2,827.19	2,652.91	174.28	16.222	
15,700.00	8,887.24	16,447.18	9,749.82	68.07	112.34	107.69	-7,154.18	-61.90	2,826.93	2,650.55	176.38	16.028	
15,800.00	8,887.23	16,547.91	9,749.00	68.69	113.71	107.68	-7,254.91	-61.46	2,826.44	2,648.05	178.38	15.845	
15,900.00	8,887.23	16,639.18	9,748.18	69.31	114.95	107.66	-7,346.18	-61.40	2,826.28	2,646.10	180.19	15.685	
16,000.00	8,887.22	16,738.20	9,747.75	69.94	116.30	107.65	-7,445.20	-61.16	2,826.10	2,643.94	182.16	15.514	
16,009.67	8,887.22	16,746.32	9,747.73	70.00	116.41	107.65	-7,453.32	-61.15	2,826.10	2,643.78	182.32	15.501	
16,100.00	8,887.22	16,832.33	9,747.74	70.56	117.58	107.65	-7,539.33	-61.17	2,826.28	2,642.25	184.03	15.358	
16,200.00	8,887.21	16,945.86	9,748.34	71.19	119.14	107.66	-7,652.86	-60.62	2,826.15	2,639.83	186.32	15.168	
16,300.00	8,887.21	17,065.12	9,748.31	71.83	120.77	107.67	-7,772.11	-59.64	2,825.55	2,636.80	188.75	14.970	
16,394.49	8,887.20	17,131.21	9,748.56	72.42	121.68	107.68	-7,838.20	-58.99	2,824.98	2,634.96	190.02	14.867	
16,400.00	8,887.20	17,134.69	9,748.58	72.46	121.73	107.68	-7,841.68	-58.98	2,824.99	2,634.90	190.09	14.861	
16,500.00	8,887.20	17,242.92	9,749.45	73.10	123.21	107.69	-7,949.90	-58.92	2,825.40	2,633.12	192.28	14.694	
16,600.00	8,887.19	17,350.53	9,749.20	73.74	124.69	107.69	-8,057.51	-58.22	2,824.87	2,630.41	194.46	14.527	
16,700.00	8,887.19	17,451.63	9,748.90	74.38	126.09	107.69	-8,158.61	-57.59	2,824.37	2,627.87	196.50	14.373	
16,800.00	8,887.18	17,562.30	9,749.36	75.02	127.61	107.70	-8,269.27	-56.30	2,823.56	2,624.80	198.75	14.206	
16,900.00	8,887.18	17,643.00	9,749.90	75.67	128.73	107.72	-8,349.96	-55.59	2,823.08	2,622.73	200.35	14.091	
16,914.60	8,887.18	17,651.33	9,749.93	75.76	128.84	107.72	-8,358.29	-55.56	2,823.07	2,622.57	200.50	14.080	
17,000.00	8,887.17	17,734.62	9,750.00	76.32	129.99	107.72	-8,441.58	-55.42	2,823.10	2,620.92	202.18	13.963	
17,100.00	8,887.17	17,831.00	9,751.46	76.97	131.33	107.76	-8,537.93	-54.04	2,822.42	2,618.29	204.12	13.827	
17,132.65	8,887.16	17,869.44	9,752.48	77.18	131.86	107.78	-8,576.35	-53.32	2,822.11	2,617.21	204.91	13.773	
17,200.00	8,887.16	17,925.00	9,753.07	77.62	132.63	107.79	-8,631.90	-53.68	2,822.76	2,616.76	206.00	13.702	
17,300.00	8,887.16	17,959.71	9,753.12	78.28	133.10	107.78	-8,666.60	-54.51	2,824.65	2,618.15	206.50	13.679	
17,400.00	8,887.15	18,038.29	9,753.22	78.93	134.18	107.77	-8,745.15	-57.00	2,827.86	2,619.85	208.01	13.595	
17,500.00	8,887.14	18,146.60	9,752.65	79.59	135.66	107.73	-8,853.38	-60.73	2,831.16	2,620.91	210.25	13.466	
17,600.00	8,887.14	18,342.58	9,753.90	80.25	138.36	107.74	-9,049.32	-63.08	2,832.69	2,618.16	214.53	13.204	
17,629.84	8,887.14	18,366.81	9,753.82	80.45	138.70	107.74	-9,073.55	-63.03	2,832.66	2,617.65	215.01	13.174	
17,700.00	8,887.13	18,428.93	9,752.97	80.91	139.56	107.72	-9,135.66	-63.31	2,832.79	2,616.52	216.27	13.098	
17,800.00	8,887.13	18,545.59	9,751.21	81.58	141.18	107.68	-9,252.31	-63.89	2,833.02	2,614.31	218.70	12.954	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM **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
17,900.00	8,887.12	18,650.51	9,749.60	82.24	142.63	107.65	-9,357.22	-63.56	2,832.43	2,611.56	220.87	12.824	
18,000.00	8,887.12	18,766.67	9,747.75	82.91	144.25	107.62	-9,473.37	-63.14	2,831.80	2,608.51	223.29	12.682	
18,100.00	8,887.11	18,863.00	9,746.92	83.58	145.59	107.61	-9,569.68	-62.27	2,830.85	2,605.59	225.27	12.567	
18,200.00	8,887.11	18,957.00	9,746.63	84.25	146.90	107.60	-9,663.68	-61.44	2,830.10	2,602.91	227.19	12.457	
18,296.82	8,887.10	19,033.85	9,746.19	84.90	147.98	107.60	-9,740.53	-61.16	2,829.76	2,601.02	228.73	12.371	
18,300.00	8,887.10	19,036.38	9,746.17	84.92	148.01	107.60	-9,743.06	-61.16	2,829.76	2,600.97	228.79	12.369	
18,400.00	8,887.10	19,151.89	9,745.07	85.60	149.62	107.57	-9,858.56	-61.10	2,829.62	2,598.42	231.20	12.239	
18,500.00	8,887.09	19,247.44	9,743.49	86.27	150.95	107.54	-9,954.10	-60.99	2,829.19	2,596.01	233.17	12.134	
18,600.00	8,887.09	19,336.16	9,741.79	86.95	152.19	107.51	-10,042.80	-61.22	2,829.04	2,594.05	234.99	12.039	
18,639.73	8,887.09	19,380.50	9,741.15	87.22	152.81	107.49	-10,087.14	-61.31	2,829.02	2,593.10	235.92	11.992	
18,700.00	8,887.08	19,447.47	9,740.68	87.63	153.74	107.49	-10,154.10	-61.16	2,828.86	2,591.55	237.32	11.920	
18,800.00	8,887.08	19,591.03	9,739.32	88.31	155.75	107.47	-10,297.63	-59.51	2,827.64	2,587.29	240.35	11.765	
18,900.00	8,887.07	19,726.38	9,739.68	88.99	157.66	107.50	-10,432.89	-54.70	2,824.30	2,581.15	243.15	11.615	
19,000.00	8,887.07	19,801.00	9,739.67	89.67	158.71	107.51	-10,507.49	-52.72	2,821.86	2,577.17	244.69	11.532	
19,100.00	8,887.06	19,853.54	9,739.49	90.36	159.45	107.51	-10,560.02	-52.10	2,820.63	2,574.90	245.73	11.479	
19,157.78	8,887.06	19,895.00	9,739.22	90.75	160.03	107.51	-10,601.48	-52.02	2,820.50	2,573.94	246.55	11.440	
19,200.00	8,887.06	19,931.90	9,738.91	91.04	160.55	107.50	-10,638.38	-52.12	2,820.57	2,573.26	247.31	11.405	
19,300.00	8,887.05	20,031.26	9,737.90	91.73	161.94	107.48	-10,737.74	-52.46	2,820.77	2,571.40	249.37	11.311	
19,400.00	8,887.05	20,132.06	9,737.26	92.42	163.35	107.46	-10,838.53	-52.69	2,820.98	2,569.51	251.47	11.218	
19,500.00	8,887.04	20,232.72	9,736.66	93.11	164.76	107.45	-10,939.19	-52.86	2,821.14	2,567.58	253.56	11.126	
19,600.00	8,887.04	20,338.74	9,735.95	93.80	166.24	107.44	-11,045.21	-52.98	2,821.24	2,565.45	255.79	11.030	
19,627.13	8,887.03	20,368.54	9,735.74	93.98	166.66	107.43	-11,075.00	-52.96	2,821.21	2,564.80	256.41	11.003	
19,700.00	8,887.03	20,409.65	9,735.83	94.49	167.24	107.43	-11,116.11	-53.06	2,821.54	2,564.36	257.18	10.971	
19,800.00	8,887.02	20,477.57	9,737.19	95.18	168.19	107.45	-11,184.01	-53.74	2,823.21	2,564.74	258.47	10.923	
19,900.00	8,887.02	20,654.82	9,736.27	95.87	170.67	107.42	-11,361.24	-56.00	2,824.83	2,562.45	262.39	10.766	
20,000.00	8,887.01	20,738.00	9,735.41	96.57	171.84	107.41	-11,444.41	-54.99	2,823.71	2,559.62	264.09	10.692	
20,000.71	8,887.01	20,738.00	9,735.41	96.57	171.84	107.41	-11,444.41	-54.99	2,823.71	2,559.62	264.09	10.692	
20,100.00	8,887.01	20,738.00	9,735.41	97.26	171.84	107.41	-11,444.41	-54.99	2,825.46	2,561.73	263.72	10.714	
20,200.00	8,887.00	20,738.00	9,735.41	97.96	171.84	107.41	-11,444.41	-54.99	2,830.73	2,567.67	263.06	10.761	
20,266.44	8,887.00	20,738.00	9,735.41	98.42	171.84	107.41	-11,444.41	-54.99	2,836.19	2,573.73	262.46	10.806	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 201-MWD+HRGM

Offset Well Error: 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	3.43	3.43	0.00	0.01	-73.23	308.07	-1,022.32	1,067.73				
100.00	100.00	101.33	101.33	0.28	0.16	-73.21	308.47	-1,022.31	1,067.83	1,067.40	0.44	2,443.479	
200.00	200.00	201.00	200.99	0.63	0.32	-73.15	309.65	-1,022.27	1,068.14	1,067.18	0.95	1,119.896	
300.00	300.00	309.31	309.29	0.99	0.71	-73.06	311.26	-1,021.70	1,068.08	1,066.38	1.70	628.740	
400.00	400.00	428.17	428.12	1.35	1.13	-72.96	312.63	-1,019.79	1,066.92	1,064.44	2.48	430.288	
500.00	500.00	540.00	539.89	1.71	1.52	-72.93	311.94	-1,016.17	1,063.59	1,060.36	3.23	329.283	
600.00	600.00	643.57	643.40	2.07	1.89	-72.93	310.99	-1,012.72	1,060.15	1,056.20	3.95	268.247	
700.00	700.00	745.29	745.04	2.43	2.25	-72.91	310.08	-1,008.84	1,056.23	1,051.56	4.67	226.139	
800.00	800.00	847.07	846.74	2.79	2.62	-72.89	309.28	-1,004.81	1,052.22	1,046.83	5.39	195.175	
900.00	900.00	947.91	947.49	3.14	2.98	-72.87	308.36	-1,000.73	1,048.09	1,041.98	6.11	171.561	
1,000.00	1,000.00	1,051.57	1,051.05	3.50	3.35	-72.87	307.03	-996.34	1,043.66	1,036.82	6.84	152.649	
1,100.00	1,100.00	1,149.78	1,149.16	3.86	3.71	-72.88	305.68	-992.16	1,039.18	1,031.64	7.55	137.705	
1,200.00	1,200.00	1,246.63	1,245.93	4.22	4.06	-72.88	304.37	-988.21	1,034.89	1,026.64	8.25	125.418	
1,300.00	1,299.98	1,341.01	1,340.24	4.56	4.40	167.14	303.20	-984.84	1,032.81	1,023.88	8.93	115.600	
1,304.52	1,304.49	1,345.50	1,344.72	4.58	4.42	167.14	303.14	-984.69	1,032.81	1,023.85	8.97	115.198	CC, ES
1,400.00	1,399.84	1,440.31	1,439.47	4.90	4.76	167.19	302.01	-981.55	1,034.39	1,024.77	9.62	107.475	
1,500.00	1,499.45	1,538.67	1,537.77	5.24	5.11	167.26	300.85	-978.36	1,039.45	1,029.14	10.32	100.767	
1,600.00	1,598.70	1,633.21	1,632.27	5.58	5.45	167.36	299.92	-975.50	1,048.19	1,037.20	11.00	95.320	
1,700.00	1,697.47	1,725.05	1,724.08	5.93	5.78	167.49	299.38	-973.29	1,061.01	1,049.34	11.67	90.913	
1,800.00	1,795.62	1,820.25	1,819.26	6.28	6.12	167.64	299.00	-971.42	1,077.70	1,065.34	12.36	87.204	
1,810.29	1,805.68	1,830.25	1,829.26	6.32	6.16	167.52	298.98	-971.24	1,079.62	1,067.19	12.43	86.840	
1,900.00	1,893.37	1,923.21	1,922.20	6.63	6.49	167.77	298.93	-969.37	1,096.48	1,083.40	13.08	83.860	
2,000.00	1,991.11	2,039.46	2,038.39	6.99	6.91	168.06	298.22	-965.81	1,114.13	1,100.29	13.84	80.495	
2,100.00	2,088.85	2,142.58	2,141.41	7.35	7.29	168.32	297.34	-961.41	1,130.59	1,116.02	14.56	77.626	
2,200.00	2,186.59	2,258.54	2,257.23	7.72	7.71	168.62	296.36	-955.73	1,146.51	1,131.18	15.34	74.758	
2,300.00	2,284.33	2,384.89	2,383.26	8.08	8.18	168.93	294.38	-947.00	1,160.32	1,144.18	16.14	71.872	
2,400.00	2,382.07	2,501.38	2,499.25	8.45	8.61	169.22	292.06	-936.50	1,172.00	1,155.08	16.92	69.266	
2,500.00	2,479.81	2,595.96	2,593.33	8.82	8.96	169.56	291.96	-926.82	1,183.22	1,165.59	17.63	67.112	
2,600.00	2,577.55	2,682.67	2,679.64	9.19	9.28	169.87	292.37	-918.59	1,195.36	1,177.05	18.32	65.263	
2,700.00	2,675.29	2,777.72	2,774.33	9.57	9.64	170.21	293.06	-910.33	1,208.39	1,189.36	19.03	63.501	
2,800.00	2,773.03	2,878.68	2,874.90	9.94	10.01	170.56	293.80	-901.42	1,221.34	1,201.58	19.76	61.796	
2,900.00	2,870.77	2,979.07	2,974.89	10.32	10.38	170.90	294.35	-892.51	1,234.22	1,213.72	20.50	60.210	
3,000.00	2,968.51	3,079.48	3,074.89	10.70	10.76	171.23	294.88	-883.48	1,247.02	1,225.78	21.23	58.725	
3,100.00	3,066.25	3,186.43	3,181.37	11.07	11.16	171.58	295.56	-873.44	1,259.54	1,237.54	22.00	57.264	
3,200.00	3,163.99	3,319.52	3,313.56	11.45	11.66	172.07	296.60	-858.10	1,270.10	1,247.26	22.84	55.599	
3,300.00	3,261.73	3,417.39	3,410.63	11.83	12.04	172.44	297.34	-845.67	1,279.70	1,256.12	23.58	54.272	
3,400.00	3,359.47	3,508.46	3,500.99	12.21	12.39	172.78	298.15	-834.36	1,289.65	1,265.36	24.29	53.087	
3,500.00	3,457.21	3,594.71	3,586.67	12.59	12.72	173.09	299.01	-824.51	1,300.62	1,275.63	24.99	52.047	
3,600.00	3,554.95	3,698.12	3,689.46	12.97	13.11	173.45	300.28	-813.24	1,312.22	1,286.47	25.75	50.969	
3,700.00	3,652.69	3,825.15	3,815.43	13.35	13.60	173.93	301.84	-797.01	1,322.08	1,295.49	26.58	49.735	
3,800.00	3,750.43	3,925.93	3,915.23	13.73	14.00	174.32	303.09	-782.97	1,331.00	1,303.66	27.33	48.693	
3,900.00	3,848.17	4,021.49	4,009.88	14.12	14.37	174.69	304.33	-769.85	1,340.20	1,312.13	28.07	47.745	
4,000.00	3,945.91	4,121.63	4,109.08	14.50	14.76	175.07	305.71	-756.23	1,349.60	1,320.77	28.82	46.825	
4,100.00	4,043.65	4,223.27	4,209.72	14.88	15.16	175.46	307.24	-742.16	1,358.88	1,329.30	29.58	45.940	
4,200.00	4,141.39	4,322.90	4,308.36	15.27	15.55	175.85	308.79	-728.20	1,368.12	1,337.79	30.33	45.105	
4,300.00	4,239.13	4,420.65	4,405.13	15.65	15.94	176.22	310.34	-714.55	1,377.45	1,346.37	31.08	44.321	
4,400.00	4,336.87	4,520.20	4,503.70	16.03	16.33	176.59	311.99	-700.66	1,386.88	1,355.05	31.83	43.567	
4,500.00	4,434.61	4,621.75	4,604.22	16.42	16.73	176.97	313.72	-686.34	1,396.27	1,363.68	32.60	42.836	
4,600.00	4,532.35	4,722.55	4,703.97	16.80	17.13	177.35	315.46	-671.93	1,405.55	1,372.20	33.36	42.138	
4,700.00	4,630.09	4,820.14	4,800.55	17.19	17.52	177.71	317.06	-658.05	1,414.91	1,380.80	34.11	41.485	
4,800.00	4,727.83	4,918.65	4,898.08	17.57	17.91	178.06	318.53	-644.22	1,424.42	1,389.56	34.86	40.861	
4,900.00	4,825.57	5,016.55	4,995.00	17.96	18.30	178.39	319.88	-630.49	1,433.96	1,398.34	35.61	40.266	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 201-MWD+HRGM

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
5,000.00	4,923.31	5,108.06	5,085.67	18.34	18.67	178.69	321.01	-618.15	1,443.94	1,407.60	36.34	39.735	
5,100.00	5,021.05	5,198.36	5,175.20	18.73	19.02	178.97	322.10	-606.49	1,454.45	1,417.39	37.06	39.245	
5,200.00	5,118.79	5,283.58	5,259.82	19.11	19.35	179.21	323.12	-596.37	1,465.89	1,428.14	37.76	38.824	
5,300.00	5,216.53	5,383.24	5,358.82	19.50	19.74	179.48	324.28	-585.02	1,477.79	1,439.28	38.51	38.372	
5,400.00	5,314.27	5,487.09	5,462.01	19.89	20.14	179.72	324.74	-573.37	1,489.51	1,450.23	39.28	37.917	
5,500.00	5,412.01	5,592.76	5,567.04	20.27	20.55	179.93	324.12	-561.72	1,500.91	1,460.85	40.06	37.466	
5,600.00	5,509.75	5,696.50	5,670.11	20.66	20.96	-179.89	322.96	-550.05	1,511.87	1,471.04	40.83	37.029	
5,700.00	5,607.50	5,795.83	5,768.80	21.05	21.34	-179.72	321.69	-538.86	1,522.75	1,481.17	41.58	36.622	
5,800.00	5,705.24	5,893.15	5,865.50	21.43	21.72	-179.55	320.46	-527.95	1,533.70	1,491.37	42.32	36.238	
5,900.00	5,802.98	5,974.04	5,945.92	21.82	22.03	-179.42	319.44	-519.30	1,545.14	1,502.15	43.00	35.937	
6,000.00	5,900.72	6,050.41	6,021.99	22.21	22.32	-179.33	318.52	-512.61	1,558.22	1,514.58	43.64	35.707	
6,100.00	5,998.46	6,117.00	6,088.37	22.59	22.57	-179.26	317.87	-507.35	1,572.42	1,528.20	44.22	35.556	
6,200.00	6,096.20	6,214.05	6,185.18	22.98	22.93	-179.16	317.41	-500.62	1,587.47	1,542.52	44.95	35.313	
6,300.00	6,193.94	6,305.00	6,275.99	23.37	23.26	-179.07	317.64	-495.58	1,604.03	1,558.38	45.65	35.135	
6,400.00	6,291.68	6,371.77	6,342.69	23.75	23.50	-179.00	318.24	-492.57	1,621.67	1,575.46	46.21	35.091	
6,500.00	6,389.42	6,457.07	6,427.92	24.14	23.80	-178.92	319.32	-489.46	1,640.38	1,593.51	46.87	34.998	
6,600.00	6,487.16	6,541.22	6,512.05	24.53	24.09	-178.88	319.92	-487.36	1,659.80	1,612.28	47.52	34.932	
6,700.00	6,584.90	6,628.94	6,599.76	24.92	24.40	-178.87	319.94	-486.47	1,680.08	1,631.90	48.18	34.873	
6,800.00	6,682.64	6,724.30	6,695.12	25.30	24.72	-178.89	319.67	-485.94	1,700.61	1,651.73	48.88	34.791	
6,900.00	6,780.38	6,815.89	6,786.71	25.69	25.03	-178.90	319.40	-485.69	1,721.37	1,671.81	49.55	34.737	
7,000.00	6,878.12	6,906.69	6,877.51	26.08	25.32	-178.91	319.45	-485.74	1,742.58	1,692.36	50.21	34.703	
7,100.00	6,975.86	7,001.05	6,971.87	26.47	25.61	-178.93	319.64	-485.99	1,764.04	1,713.15	50.89	34.665	
7,200.00	7,073.60	7,091.55	7,062.37	26.86	25.90	-178.94	319.84	-486.46	1,785.72	1,734.18	51.54	34.649	
7,300.00	7,171.34	7,176.09	7,146.90	27.24	26.16	-178.97	319.75	-487.69	1,808.02	1,755.87	52.15	34.672	
7,323.61	7,194.42	7,196.18	7,166.99	27.34	26.22	-178.98	319.71	-488.09	1,813.38	1,761.09	52.29	34.679	
7,400.00	7,269.29	7,263.05	7,233.84	27.63	26.43	-179.03	319.59	-489.70	1,829.99	1,777.22	52.76	34.682	
7,500.00	7,367.86	7,358.98	7,329.73	28.01	26.72	-179.09	319.30	-492.31	1,848.94	1,795.51	53.43	34.604	
7,600.00	7,466.96	7,455.66	7,426.36	28.38	27.02	-179.16	318.83	-495.24	1,864.61	1,810.52	54.10	34.468	
7,700.00	7,566.46	7,558.62	7,529.27	28.74	27.34	-179.25	317.91	-498.53	1,876.77	1,821.98	54.79	34.251	
7,800.00	7,666.25	7,659.40	7,629.99	29.09	27.65	-179.34	316.48	-501.80	1,885.24	1,829.77	55.47	33.987	
7,900.00	7,766.20	7,757.21	7,727.70	29.43	27.95	-179.45	314.50	-505.52	1,890.40	1,834.28	56.12	33.688	
7,933.80	7,800.00	7,792.62	7,763.08	29.55	28.06	-59.35	313.92	-506.76	1,891.33	1,834.99	56.34	33.567	
8,000.00	7,866.20	7,873.39	7,843.82	29.76	28.31	-59.41	313.01	-509.01	1,892.55	1,835.69	56.86	33.284	
8,100.00	7,966.20	7,995.14	7,965.56	30.07	28.70	-59.44	312.48	-510.36	1,893.27	1,835.63	57.64	32.846	
8,200.00	8,066.20	8,117.77	8,088.18	30.39	29.11	-59.45	312.14	-510.03	1,892.89	1,834.46	58.43	32.393	
8,300.00	8,166.20	8,231.46	8,201.86	30.71	29.50	-59.46	310.98	-508.78	1,891.42	1,832.24	59.18	31.962	
8,400.00	8,266.20	8,332.44	8,302.82	31.04	29.84	-59.48	309.46	-507.66	1,889.69	1,829.84	59.85	31.574	
8,428.80	8,295.00	8,361.52	8,331.90	31.13	29.94	-59.49	308.95	-507.36	1,889.18	1,829.14	60.04	31.464	
8,439.64	8,305.84	8,372.47	8,342.84	31.16	29.98	159.51	308.75	-507.26	1,889.09	1,828.97	60.12	31.423	
8,450.00	8,316.20	8,383.13	8,353.51	31.20	30.02	159.51	308.55	-507.16	1,889.17	1,828.98	60.19	31.387	
8,500.00	8,366.02	8,435.62	8,405.98	31.38	30.20	159.43	307.52	-506.63	1,892.02	1,831.46	60.55	31.245	
8,550.00	8,415.30	8,485.90	8,456.25	31.56	30.37	159.26	306.48	-506.08	1,898.87	1,837.95	60.92	31.171	
8,600.00	8,463.67	8,530.98	8,501.31	31.75	30.52	158.97	305.57	-505.64	1,909.79	1,848.53	61.26	31.176	
8,650.00	8,510.75	8,575.82	8,546.14	31.95	30.68	158.55	304.69	-505.28	1,924.73	1,863.13	61.61	31.243	
8,700.00	8,556.19	8,623.25	8,593.57	32.16	30.84	158.02	303.72	-504.92	1,943.52	1,881.55	61.97	31.362	
8,750.00	8,599.64	8,668.14	8,638.45	32.37	30.99	157.31	302.73	-504.58	1,965.98	1,903.66	62.32	31.545	
8,800.00	8,640.77	8,707.87	8,678.16	32.58	31.13	156.39	301.79	-504.34	1,992.01	1,929.37	62.64	31.799	
8,850.00	8,679.28	8,745.16	8,715.44	32.80	31.25	155.22	300.84	-504.20	2,021.45	1,958.50	62.95	32.113	
8,900.00	8,714.85	8,781.73	8,751.99	33.02	31.37	153.75	299.86	-504.12	2,054.07	1,990.82	63.25	32.478	
8,950.00	8,747.24	8,815.93	8,786.18	33.24	31.49	151.88	298.89	-504.06	2,089.58	2,026.06	63.52	32.896	
9,000.00	8,776.18	10,819.14	9,938.88	33.45	39.12	138.68	-862.09	-492.40	2,121.87	2,055.36	66.51	31.904	
9,050.00	8,801.45	10,860.45	9,939.78	33.67	39.39	137.26	-903.38	-491.53	2,130.89	2,063.54	67.34	31.642	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 201-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.00	8,822.88	10,897.20	9,940.40	33.88	39.64	135.68	-940.12	-490.79	2,143.49	2,075.38	68.11	31.469	
9,150.00	8,840.29	10,933.79	9,940.98	34.09	39.89	133.84	-976.70	-490.09	2,159.54	2,090.70	68.83	31.374	
9,178.80	8,848.43	10,955.29	9,941.30	34.21	40.04	132.65	-998.19	-489.69	2,170.24	2,101.01	69.23	31.350	
9,200.00	8,853.73	10,971.75	9,941.53	34.30	40.16	132.05	-1,014.64	-489.40	2,178.65	2,109.13	69.51	31.341	
9,300.00	8,873.56	11,052.50	9,942.57	34.70	40.74	129.04	-1,095.37	-487.93	2,222.03	2,151.20	70.83	31.372	
9,400.00	8,884.77	11,114.65	9,943.11	35.10	41.20	125.99	-1,157.52	-487.12	2,271.29	2,199.39	71.90	31.590	
9,478.80	8,887.48	11,151.00	9,943.20	35.42	41.48	123.48	-1,193.87	-487.02	2,314.05	2,241.49	72.56	31.892	
9,500.00	8,887.48	11,171.48	9,943.22	35.50	41.64	123.26	-1,214.35	-487.08	2,325.98	2,253.16	72.83	31.939	
9,600.00	8,887.48	11,222.22	9,943.38	35.91	42.03	122.75	-1,265.09	-487.63	2,383.13	2,309.47	73.66	32.353	
9,700.00	8,887.48	11,278.35	9,943.64	36.33	42.48	122.18	-1,321.20	-488.85	2,441.41	2,366.86	74.54	32.752	
9,800.00	8,887.48	11,340.00	9,943.57	36.78	42.97	121.57	-1,382.82	-490.81	2,500.51	2,425.03	75.48	33.128	
9,900.00	8,887.48	11,442.36	9,943.77	37.25	43.83	120.61	-1,485.14	-493.73	2,559.81	2,482.96	76.85	33.310	
10,000.00	8,887.48	11,599.90	9,945.51	37.74	45.22	119.31	-1,642.66	-493.41	2,617.30	2,538.45	78.85	33.195	
10,100.00	8,887.48	11,683.52	9,946.32	38.24	45.99	118.67	-1,726.26	-491.92	2,674.03	2,593.94	80.09	33.386	
10,133.80	8,887.48	11,708.99	9,946.35	38.41	46.23	118.48	-1,751.72	-491.57	2,693.26	2,612.78	80.49	33.462	
10,200.00	8,887.48	11,765.45	9,946.38	38.76	46.77	117.64	-1,808.18	-490.78	2,730.44	2,649.09	81.34	33.567	
10,300.00	8,887.48	11,854.25	9,947.00	39.29	47.62	116.49	-1,896.97	-489.10	2,784.41	2,701.72	82.69	33.675	
10,400.00	8,887.48	11,946.73	9,947.51	39.83	48.54	115.45	-1,989.42	-487.12	2,835.66	2,751.57	84.09	33.721	
10,500.00	8,887.48	12,033.66	9,947.84	40.37	49.41	114.55	-2,076.32	-485.04	2,884.06	2,798.61	85.45	33.752	
10,600.00	8,887.48	12,111.73	9,947.97	40.92	50.21	113.78	-2,154.38	-483.44	2,929.99	2,843.28	86.71	33.792	
10,700.00	8,887.48	12,198.37	9,948.32	41.47	51.11	113.06	-2,241.00	-481.75	2,973.31	2,885.22	88.09	33.755	
10,800.00	8,887.47	12,292.25	9,948.72	42.02	52.11	112.40	-2,334.86	-479.90	3,013.78	2,924.20	89.58	33.645	
10,900.00	8,887.47	12,376.00	9,949.13	42.56	53.01	111.85	-2,418.59	-477.98	3,051.13	2,960.18	90.94	33.550	
11,000.00	8,887.47	12,431.99	9,949.32	43.11	53.62	111.42	-2,474.57	-477.16	3,086.27	2,994.35	91.92	33.574	
11,100.00	8,887.47	12,470.00	9,949.27	43.65	54.03	111.06	-2,512.58	-477.30	3,119.89	3,027.25	92.63	33.681	
11,200.00	8,887.46	12,548.23	9,949.08	44.18	54.88	110.64	-2,590.79	-478.56	3,151.43	3,057.51	93.92	33.555	
11,300.00	8,887.46	12,632.49	9,949.12	44.71	55.81	110.26	-2,675.03	-480.51	3,180.57	3,085.27	95.30	33.376	
11,400.00	8,887.46	12,736.68	9,949.62	45.22	56.97	109.90	-2,779.20	-482.81	3,206.63	3,109.65	96.98	33.064	
11,500.00	8,887.45	12,838.14	9,950.09	45.73	58.12	109.60	-2,880.64	-484.76	3,229.27	3,130.63	98.64	32.738	
11,600.00	8,887.45	12,933.49	9,950.47	46.23	59.21	109.36	-2,975.97	-486.60	3,248.69	3,148.48	100.21	32.418	
11,700.00	8,887.45	13,029.52	9,950.93	46.72	60.32	109.16	-3,071.98	-488.51	3,264.97	3,163.17	101.80	32.072	
11,800.00	8,887.44	13,134.98	9,951.66	47.20	61.55	109.00	-3,177.42	-490.47	3,277.94	3,174.39	103.55	31.657	
11,900.00	8,887.44	13,258.39	9,952.50	47.67	63.01	108.89	-3,300.81	-492.48	3,287.47	3,181.87	105.60	31.133	
12,000.00	8,887.43	13,463.03	9,952.28	48.13	65.48	108.82	-3,505.43	-490.83	3,290.71	3,181.74	108.97	30.197	
12,078.43	8,887.43	13,549.92	9,951.97	48.48	66.54	108.82	-3,592.30	-488.99	3,290.21	3,179.77	110.44	29.791	
12,100.00	8,887.43	13,575.59	9,951.89	48.57	66.85	108.82	-3,617.97	-488.38	3,289.74	3,178.87	110.87	29.671	
12,200.00	8,887.42	13,670.78	9,951.55	49.01	68.03	108.83	-3,713.13	-486.06	3,287.50	3,174.99	112.51	29.221	
12,300.00	8,887.42	13,765.09	9,951.10	49.47	69.20	108.83	-3,807.41	-484.07	3,285.53	3,171.39	114.14	28.786	
12,400.00	8,887.41	13,868.80	9,950.68	49.92	70.49	108.83	-3,911.10	-481.89	3,283.58	3,167.65	115.94	28.322	
12,500.00	8,887.41	13,967.56	9,950.36	50.39	71.73	108.84	-4,009.83	-479.69	3,281.55	3,163.89	117.67	27.888	
12,600.00	8,887.40	14,066.71	9,950.15	50.86	72.99	108.85	-4,108.96	-477.51	3,279.58	3,160.16	119.42	27.464	
12,700.00	8,887.40	14,152.36	9,949.94	51.34	74.07	108.85	-4,194.59	-475.82	3,277.82	3,156.87	120.95	27.101	
12,800.00	8,887.39	14,279.17	9,949.61	51.82	75.69	108.86	-4,321.37	-473.09	3,275.88	3,152.69	123.19	26.592	
12,900.00	8,887.39	14,361.14	9,949.53	52.31	76.74	108.87	-4,403.32	-471.18	3,273.82	3,149.14	124.68	26.258	
13,000.00	8,887.38	14,460.24	9,949.73	52.81	78.02	108.88	-4,502.40	-469.04	3,272.02	3,145.55	126.47	25.872	
13,100.00	8,887.37	14,548.21	9,950.15	53.31	79.15	108.90	-4,590.34	-467.26	3,270.43	3,142.36	128.08	25.535	
13,200.00	8,887.37	14,641.00	9,950.64	53.82	80.36	108.92	-4,683.12	-465.49	3,268.99	3,139.21	129.77	25.190	
13,285.33	8,887.37	14,687.68	9,950.87	54.26	80.96	108.92	-4,729.80	-464.95	3,268.41	3,137.76	130.65	25.016	
13,300.00	8,887.36	14,694.81	9,950.90	54.34	81.05	108.92	-4,736.93	-464.93	3,268.42	3,137.64	130.78	24.991	
13,400.00	8,887.36	14,751.96	9,951.17	54.86	81.79	108.93	-4,794.07	-465.38	3,269.42	3,137.58	131.84	24.798	
13,500.00	8,887.35	14,831.00	9,951.86	55.38	82.82	108.93	-4,873.10	-466.24	3,270.99	3,137.69	133.29	24.540	
13,600.00	8,887.35	14,904.75	9,952.72	55.91	83.77	108.94	-4,946.84	-467.52	3,273.29	3,138.64	134.65	24.310	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 201-MWD+HRGM

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
13,700.00	8,887.34	14,999.51	9,954.17	56.45	85.00	108.95	-5,041.55	-470.12	3,276.55	3,140.15	136.40	24.022	
13,800.00	8,887.34	15,184.49	9,958.21	56.99	87.43	109.01	-5,226.47	-470.87	3,277.33	3,137.48	139.85	23.435	
13,900.00	8,887.33	15,266.56	9,959.98	57.54	88.52	109.04	-5,308.52	-470.82	3,278.15	3,136.77	141.39	23.186	
14,000.00	8,887.33	15,416.34	9,961.99	58.09	90.50	109.07	-5,458.29	-470.69	3,278.79	3,134.61	144.18	22.740	
14,100.00	8,887.32	15,507.47	9,962.45	58.64	91.71	109.08	-5,549.42	-470.05	3,278.47	3,132.55	145.92	22.468	
14,123.11	8,887.32	15,525.65	9,962.56	58.77	91.95	109.08	-5,567.59	-469.96	3,278.45	3,132.19	146.26	22.415	
14,200.00	8,887.32	15,588.00	9,962.95	59.20	92.78	109.09	-5,629.94	-469.88	3,278.65	3,131.19	147.45	22.235	
14,300.00	8,887.31	15,683.00	9,963.55	59.77	94.05	109.10	-5,724.94	-469.87	3,279.03	3,129.77	149.26	21.968	
14,400.00	8,887.31	15,778.00	9,964.05	60.34	95.31	109.10	-5,819.94	-470.26	3,279.77	3,128.69	151.08	21.709	
14,500.00	8,887.30	15,917.18	9,963.83	60.91	97.18	109.10	-5,959.11	-470.40	3,280.02	3,126.28	153.73	21.336	
14,600.00	8,887.30	16,029.01	9,963.24	61.49	98.68	109.09	-6,070.93	-469.61	3,279.35	3,123.48	155.88	21.038	
14,700.00	8,887.29	16,123.90	9,962.71	62.07	99.96	109.08	-6,165.83	-468.82	3,278.57	3,120.85	157.72	20.787	
14,800.00	8,887.29	16,213.33	9,962.19	62.65	101.16	109.08	-6,255.25	-468.37	3,278.08	3,118.61	159.47	20.557	
14,900.00	8,887.28	16,312.25	9,961.68	63.24	102.50	109.07	-6,354.17	-468.10	3,277.82	3,116.43	161.39	20.310	
15,000.00	8,887.28	16,466.47	9,960.78	63.83	104.59	109.06	-6,508.37	-466.20	3,276.62	3,112.27	164.35	19.937	
15,100.00	8,887.27	16,549.26	9,960.34	64.43	105.71	109.06	-6,591.14	-464.66	3,274.88	3,108.89	165.99	19.730	
15,200.00	8,887.27	16,627.00	9,960.09	65.03	106.77	109.06	-6,668.88	-463.86	3,273.95	3,106.41	167.53	19.542	
15,276.98	8,887.26	16,679.52	9,959.94	65.49	107.48	109.06	-6,721.40	-463.72	3,273.76	3,105.18	168.58	19.419	
15,300.00	8,887.26	16,698.32	9,959.89	65.63	107.74	109.06	-6,740.20	-463.71	3,273.78	3,104.82	168.95	19.377	
15,400.00	8,887.25	16,782.86	9,959.71	66.24	108.89	109.06	-6,824.74	-463.96	3,274.16	3,103.53	170.62	19.190	
15,500.00	8,887.25	16,858.43	9,959.70	66.85	109.91	109.05	-6,900.31	-464.54	3,275.07	3,102.96	172.11	19.029	
15,600.00	8,887.24	16,940.10	9,959.78	67.46	111.02	109.04	-6,981.97	-465.91	3,276.84	3,103.12	173.72	18.863	
15,700.00	8,887.24	17,047.93	9,959.70	68.07	112.49	109.03	-7,089.78	-467.69	3,278.55	3,102.70	175.85	18.644	
15,800.00	8,887.23	17,169.67	9,959.48	68.69	114.14	109.02	-7,211.51	-469.47	3,280.09	3,101.83	178.26	18.400	
15,900.00	8,887.23	17,343.52	9,959.36	69.31	116.52	109.01	-7,385.35	-469.36	3,280.35	3,098.68	181.67	18.057	
16,000.00	8,887.22	17,473.02	9,958.83	69.94	118.31	109.02	-7,514.83	-466.61	3,278.31	3,094.11	184.21	17.797	
16,100.00	8,887.22	17,566.00	9,957.49	70.56	119.59	109.01	-7,607.77	-464.73	3,276.12	3,090.04	186.08	17.606	
16,200.00	8,887.21	17,662.00	9,954.78	71.19	120.91	108.97	-7,703.73	-463.59	3,274.26	3,086.23	188.02	17.414	
16,300.00	8,887.21	17,725.17	9,952.50	71.83	121.78	108.93	-7,766.85	-463.54	3,273.12	3,083.78	189.34	17.287	
16,400.00	8,887.20	17,825.82	9,949.26	72.46	123.17	108.87	-7,867.45	-463.93	3,272.62	3,081.24	191.38	17.100	
16,500.00	8,887.20	17,925.29	9,946.45	73.10	124.54	108.83	-7,966.88	-463.90	3,271.86	3,078.46	193.39	16.918	
16,598.25	8,887.19	18,001.14	9,945.44	73.73	125.59	108.81	-8,042.72	-463.77	3,271.47	3,076.52	194.94	16.782	
16,600.00	8,887.19	18,002.41	9,945.42	73.74	125.60	108.81	-8,043.99	-463.77	3,271.47	3,076.50	194.97	16.779	
16,700.00	8,887.19	18,118.40	9,943.81	74.38	127.21	108.78	-8,159.97	-464.17	3,271.57	3,074.27	197.30	16.582	
16,800.00	8,887.18	18,295.43	9,941.96	75.02	129.66	108.77	-8,336.94	-460.46	3,269.05	3,068.28	200.78	16.282	
16,900.00	8,887.18	18,375.62	9,942.04	75.67	130.78	108.78	-8,417.10	-458.09	3,266.48	3,064.05	202.43	16.136	
17,000.00	8,887.17	18,513.58	9,941.89	76.32	132.70	108.80	-8,555.00	-454.32	3,264.17	3,059.02	205.15	15.911	
17,100.00	8,887.17	18,587.90	9,941.87	76.97	133.74	108.81	-8,629.28	-451.88	3,261.22	3,054.51	206.71	15.777	
17,200.00	8,887.16	18,681.95	9,942.22	77.62	135.05	108.83	-8,723.30	-449.15	3,258.76	3,050.14	208.62	15.620	
17,300.00	8,887.16	18,780.60	9,942.45	78.28	136.43	108.85	-8,821.90	-446.38	3,256.36	3,045.74	210.63	15.460	
17,400.00	8,887.15	18,871.14	9,942.40	78.93	137.70	108.86	-8,912.42	-444.07	3,254.12	3,041.63	212.49	15.315	
17,500.00	8,887.14	18,996.34	9,941.83	79.59	139.45	108.87	-9,037.57	-440.86	3,251.74	3,036.75	214.99	15.125	
17,600.00	8,887.14	19,074.00	9,942.31	80.25	140.54	108.89	-9,115.19	-438.37	3,249.12	3,032.51	216.61	15.000	
17,700.00	8,887.13	19,151.04	9,942.37	80.91	141.61	108.90	-9,192.21	-436.55	3,247.13	3,028.91	218.22	14.880	
17,800.00	8,887.13	19,226.81	9,941.02	81.58	142.67	108.88	-9,267.95	-436.02	3,246.06	3,026.26	219.80	14.768	
17,900.00	8,887.12	19,318.38	9,939.28	82.24	143.95	108.85	-9,359.51	-435.96	3,245.56	3,023.87	221.69	14.640	
18,000.00	8,887.12	19,417.34	9,938.03	82.91	145.33	108.83	-9,458.47	-435.71	3,245.09	3,021.37	223.72	14.505	
18,100.00	8,887.11	19,513.54	9,937.25	83.58	146.67	108.82	-9,554.66	-435.41	3,244.71	3,019.01	225.70	14.376	
18,200.00	8,887.11	19,606.03	9,937.65	84.25	147.97	108.83	-9,647.15	-434.89	3,244.50	3,016.90	227.59	14.256	
18,300.00	8,887.10	19,762.84	9,937.91	84.92	150.16	108.84	-9,803.93	-432.38	3,243.03	3,012.29	230.75	14.055	
18,400.00	8,887.10	19,827.00	9,938.20	85.60	151.06	108.85	-9,868.08	-431.62	3,242.06	3,009.95	232.11	13.968	
18,423.67	8,887.10	19,827.00	9,938.20	85.76	151.06	108.85	-9,868.08	-431.62	3,241.97	3,009.85	232.12	13.967	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 201-MWD+HRGM **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
18,500.00	8,887.09	19,895.64	9,938.56	86.27	152.02	108.86	-9,936.72	-431.53	3,242.14	3,008.61	233.53	13.883	
18,600.00	8,887.09	19,992.72	9,938.65	86.95	153.38	108.86	-10,033.80	-431.60	3,242.41	3,006.89	235.53	13.767	
18,700.00	8,887.08	20,110.36	9,938.17	87.63	155.03	108.85	-10,151.44	-431.69	3,242.55	3,004.61	237.94	13.628	
18,800.00	8,887.08	20,221.00	9,937.01	88.31	156.58	108.83	-10,262.07	-431.39	3,242.12	3,001.90	240.22	13.496	
18,900.00	8,887.07	20,316.60	9,936.46	88.99	157.92	108.82	-10,357.67	-430.94	3,241.67	2,999.47	242.20	13.384	
19,000.00	8,887.07	20,421.28	9,935.81	89.67	159.39	108.81	-10,462.34	-430.43	3,241.19	2,996.83	244.36	13.264	
19,100.00	8,887.06	20,519.48	9,934.84	90.36	160.77	108.80	-10,560.54	-429.96	3,240.60	2,994.21	246.39	13.152	
19,200.00	8,887.06	20,608.76	9,934.24	91.04	162.02	108.79	-10,649.82	-429.71	3,240.29	2,992.04	248.25	13.053	
19,272.64	8,887.05	20,676.00	9,934.13	91.54	162.96	108.79	-10,717.06	-429.55	3,240.22	2,990.58	249.64	12.979	
19,300.00	8,887.05	20,698.04	9,934.15	91.73	163.27	108.79	-10,739.09	-429.51	3,240.24	2,990.14	250.10	12.956	
19,400.00	8,887.05	20,780.39	9,934.40	92.42	164.43	108.79	-10,821.45	-429.73	3,240.75	2,988.94	251.80	12.870	
19,500.00	8,887.04	20,894.66	9,934.71	93.11	166.03	108.80	-10,935.71	-429.67	3,240.92	2,986.76	254.16	12.751	
19,600.00	8,887.04	20,966.87	9,934.95	93.80	167.05	108.80	-11,007.92	-430.04	3,241.68	2,986.03	255.65	12.680	
19,700.00	8,887.03	21,096.76	9,935.03	94.49	168.87	108.79	-11,137.82	-430.54	3,242.21	2,983.86	258.35	12.550	
19,800.00	8,887.02	21,196.92	9,933.81	95.18	170.28	108.77	-11,237.97	-430.92	3,242.36	2,981.92	260.43	12.450	
19,900.00	8,887.02	21,301.82	9,933.88	95.87	171.75	108.77	-11,342.86	-430.92	3,242.57	2,979.96	262.61	12.348	
20,000.00	8,887.01	21,398.00	9,935.23	96.57	173.11	108.79	-11,439.03	-430.33	3,242.61	2,978.02	264.59	12.255	SF
20,100.00	8,887.01	21,398.00	9,935.23	97.26	173.11	108.79	-11,439.03	-430.33	3,244.32	2,979.81	264.51	12.265	
20,200.00	8,887.00	21,398.00	9,935.23	97.96	173.11	108.79	-11,439.03	-430.33	3,249.10	2,984.90	264.21	12.298	
20,266.44	8,887.00	21,398.00	9,935.23	98.42	173.11	108.79	-11,439.03	-430.33	3,253.98	2,990.10	263.88	12.331	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	1.52	-79.97	79.98				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	1.52	-79.97	79.98	79.43	0.55	144.887	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	1.52	-79.97	79.98	78.72	1.27	63.030	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	1.52	-79.97	79.98	78.00	1.99	40.276	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	1.52	-79.97	79.98	77.28	2.70	29.592	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	1.52	-79.97	79.98	76.56	3.42	23.389	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	1.52	-79.97	79.98	75.85	4.14	19.335	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	1.52	-79.97	79.98	75.13	4.85	16.479	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	1.52	-79.97	79.98	74.41	5.57	14.358	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	1.52	-79.97	79.98	73.70	6.29	12.721	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	1.52	-79.97	79.98	72.98	7.00	11.419	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	-88.91	1.52	-79.97	79.98	72.26	7.72	10.359	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-88.91	1.52	-79.97	79.98	71.55	8.44	9.479	CC, ES
1,300.00	1,299.98	1,299.98	1,299.98	4.56	4.58	151.67	1.52	-79.97	81.52	72.37	9.14	8.917	
1,400.00	1,399.84	1,399.84	1,399.84	4.90	4.94	153.28	1.52	-79.97	86.16	76.32	9.84	8.760	
1,500.00	1,499.45	1,499.45	1,499.45	5.24	5.29	155.60	1.52	-79.97	94.03	83.50	10.53	8.929	
1,600.00	1,598.70	1,598.70	1,598.70	5.58	5.65	158.25	1.52	-79.97	105.26	94.03	11.23	9.374	
1,700.00	1,697.47	1,697.47	1,697.47	5.93	6.00	160.92	1.52	-79.97	119.94	108.02	11.93	10.057	
1,800.00	1,795.62	1,795.62	1,795.62	6.28	6.35	163.40	1.52	-79.97	138.14	125.52	12.62	10.942	
1,810.29	1,805.68	1,805.88	1,805.88	6.32	6.39	163.51	1.51	-79.97	140.21	127.51	12.70	11.041	
1,900.00	1,893.37	1,897.22	1,897.20	6.63	6.70	165.10	0.10	-79.13	157.37	144.06	13.32	11.817	
2,000.00	1,991.11	2,000.09	1,999.93	6.99	7.04	165.73	-4.50	-76.43	174.18	160.18	14.00	12.445	
2,100.00	2,088.85	2,103.83	2,103.26	7.35	7.38	165.46	-12.36	-71.82	188.41	173.73	14.68	12.835	
2,200.00	2,186.59	2,208.18	2,206.80	7.72	7.73	164.48	-23.51	-65.26	200.06	184.69	15.36	13.021	
2,300.00	2,284.33	2,312.60	2,309.87	8.08	8.08	162.86	-37.91	-56.80	209.24	193.18	16.05	13.033	
2,400.00	2,382.07	2,412.05	2,407.77	8.45	8.42	161.13	-53.03	-47.92	217.45	200.68	16.76	12.974	
2,500.00	2,479.81	2,511.51	2,505.66	8.82	8.76	159.53	-68.15	-39.03	225.84	208.36	17.47	12.925	
2,600.00	2,577.55	2,610.97	2,603.56	9.19	9.10	158.05	-83.27	-30.15	234.39	216.20	18.19	12.887	
2,700.00	2,675.29	2,710.42	2,701.46	9.57	9.44	156.66	-98.39	-21.27	243.09	224.18	18.91	12.855	
2,800.00	2,773.03	2,809.88	2,799.35	9.94	9.79	155.38	-113.51	-12.38	251.92	232.29	19.63	12.831	
2,900.00	2,870.77	2,909.33	2,897.25	10.32	10.14	154.18	-128.63	-3.50	260.87	240.51	20.36	12.811	
3,000.00	2,968.51	3,008.79	2,995.15	10.70	10.50	153.06	-143.75	5.38	269.93	248.83	21.09	12.797	
3,100.00	3,066.25	3,108.24	3,093.04	11.07	10.85	152.02	-158.87	14.27	279.08	257.25	21.83	12.785	
3,200.00	3,163.99	3,207.70	3,190.94	11.45	11.21	151.04	-173.99	23.15	288.32	265.75	22.56	12.778	
3,300.00	3,261.73	3,307.15	3,288.84	11.83	11.56	150.12	-189.11	32.04	297.63	274.33	23.30	12.772	
3,400.00	3,359.47	3,406.61	3,386.73	12.21	11.92	149.26	-204.23	40.92	307.02	282.97	24.04	12.769	
3,500.00	3,457.21	3,506.06	3,484.63	12.59	12.28	148.45	-219.35	49.80	316.47	291.68	24.79	12.768	
3,600.00	3,554.95	3,605.52	3,582.53	12.97	12.64	147.68	-234.47	58.69	325.98	300.45	25.53	12.768	
3,700.00	3,652.69	3,704.97	3,680.43	13.35	13.00	146.96	-249.59	67.57	335.55	309.27	26.28	12.770	
3,800.00	3,750.43	3,804.43	3,778.32	13.73	13.37	146.28	-264.71	76.45	345.16	318.14	27.02	12.773	
3,900.00	3,848.17	3,903.88	3,876.22	14.12	13.73	145.64	-279.83	85.34	354.82	327.05	27.77	12.777	
4,000.00	3,945.91	4,003.34	3,974.12	14.50	14.10	145.03	-294.95	94.22	364.53	336.00	28.52	12.781	
4,100.00	4,043.65	4,102.79	4,072.01	14.88	14.46	144.45	-310.07	103.11	374.27	345.00	29.27	12.786	
4,200.00	4,141.39	4,202.25	4,169.91	15.27	14.83	143.90	-325.20	111.99	384.04	354.02	30.02	12.792	
4,300.00	4,239.13	4,301.70	4,267.81	15.65	15.20	143.38	-340.32	120.87	393.85	363.08	30.78	12.798	
4,400.00	4,336.87	4,401.16	4,365.70	16.03	15.56	142.89	-355.44	129.76	403.70	372.17	31.53	12.804	
4,500.00	4,434.61	4,500.61	4,463.60	16.42	15.93	142.41	-370.56	138.64	413.57	381.28	32.28	12.811	
4,600.00	4,532.35	4,600.07	4,561.50	16.80	16.30	141.96	-385.68	147.52	423.46	390.42	33.04	12.817	
4,700.00	4,630.09	4,699.52	4,659.39	17.19	16.67	141.53	-400.80	156.41	433.38	399.59	33.79	12.824	
4,800.00	4,727.83	4,798.98	4,757.29	17.57	17.04	141.12	-415.92	165.29	443.33	408.78	34.55	12.831	
4,900.00	4,825.57	4,898.43	4,855.19	17.96	17.41	140.73	-431.04	174.18	453.29	417.99	35.31	12.839	
5,000.00	4,923.31	4,997.89	4,953.08	18.34	17.78	140.36	-446.16	183.06	463.28	427.22	36.06	12.846	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,021.05	5,097.35	5,050.98	18.73	18.15	140.00	-461.28	191.94	473.29	436.46	36.82	12.853	
5,200.00	5,118.79	5,196.80	5,148.88	19.11	18.52	139.65	-476.40	200.83	483.31	445.73	37.58	12.860	
5,300.00	5,216.53	5,296.26	5,246.78	19.50	18.89	139.32	-491.52	209.71	493.35	455.01	38.34	12.868	
5,400.00	5,314.27	5,395.71	5,344.67	19.89	19.26	139.00	-506.64	218.59	503.40	464.30	39.10	12.875	
5,500.00	5,412.01	5,495.17	5,442.57	20.27	19.64	138.70	-521.76	227.48	513.47	473.61	39.86	12.882	
5,600.00	5,509.75	5,594.62	5,540.47	20.66	20.01	138.40	-536.88	236.36	523.56	482.94	40.62	12.889	
5,700.00	5,607.50	5,694.08	5,638.36	21.05	20.38	138.12	-552.00	245.25	533.65	492.27	41.38	12.896	
5,800.00	5,705.24	5,793.53	5,736.26	21.43	20.75	137.85	-567.12	254.13	543.76	501.62	42.14	12.904	
5,900.00	5,802.98	5,892.99	5,834.16	21.82	21.13	137.59	-582.24	263.01	553.88	510.98	42.90	12.910	
6,000.00	5,900.72	5,992.44	5,932.05	22.21	21.50	137.34	-597.36	271.90	564.01	520.35	43.66	12.917	
6,100.00	5,998.46	6,091.90	6,029.95	22.59	21.87	137.09	-612.48	280.78	574.16	529.73	44.43	12.924	
6,200.00	6,096.20	6,191.35	6,127.85	22.98	22.25	136.86	-627.60	289.67	584.31	539.12	45.19	12.931	
6,300.00	6,193.94	6,290.81	6,225.74	23.37	22.62	136.63	-642.72	298.55	594.47	548.52	45.95	12.937	
6,400.00	6,291.68	6,390.26	6,323.64	23.75	23.00	136.41	-657.84	307.43	604.64	557.93	46.71	12.944	
6,500.00	6,389.42	6,489.72	6,421.54	24.14	23.37	136.20	-672.96	316.32	614.82	567.34	47.48	12.950	
6,600.00	6,487.16	6,589.17	6,519.43	24.53	23.75	135.99	-688.08	325.20	625.01	576.77	48.24	12.957	
6,700.00	6,584.90	6,688.63	6,617.33	24.92	24.12	135.79	-703.20	334.08	635.20	586.20	49.00	12.963	
6,800.00	6,682.64	6,788.08	6,715.23	25.30	24.50	135.60	-718.32	342.97	645.40	595.64	49.77	12.969	
6,900.00	6,780.38	6,887.54	6,813.13	25.69	24.87	135.41	-733.44	351.85	655.61	605.08	50.53	12.975	
7,000.00	6,878.12	6,986.99	6,911.02	26.08	25.25	135.23	-748.56	360.74	665.83	614.53	51.29	12.981	
7,100.00	6,975.86	7,086.45	7,008.92	26.47	25.62	135.06	-763.68	369.62	676.05	623.99	52.06	12.987	
7,200.00	7,073.60	7,185.90	7,106.82	26.86	26.00	134.89	-778.80	378.50	686.28	633.46	52.82	12.992	
7,300.00	7,171.34	7,285.36	7,204.71	27.24	26.37	134.72	-793.92	387.39	696.51	642.93	53.59	12.998	
7,323.61	7,194.42	7,308.84	7,227.83	27.34	26.46	134.69	-797.49	389.48	698.93	645.16	53.77	12.999	
7,400.00	7,269.29	7,384.86	7,302.66	27.63	26.75	134.61	-809.05	396.27	706.04	651.69	54.35	12.991	
7,500.00	7,367.86	7,479.06	7,395.58	28.01	27.10	134.42	-822.35	404.09	713.55	658.48	55.07	12.958	
7,600.00	7,466.96	7,572.73	7,488.43	28.38	27.45	134.27	-832.98	410.34	719.49	663.72	55.77	12.901	
7,700.00	7,566.46	7,666.53	7,581.76	28.74	27.79	134.14	-841.00	415.05	723.86	667.40	56.45	12.822	
7,800.00	7,666.25	7,760.43	7,675.46	29.09	28.13	134.05	-846.38	418.21	726.63	669.51	57.12	12.721	
7,900.00	7,766.20	7,854.41	7,769.37	29.43	28.45	133.98	-849.11	419.81	727.82	670.05	57.76	12.600	
7,933.80	7,800.00	7,886.18	7,801.14	29.55	28.56	-105.90	-849.43	420.00	727.85	669.88	57.97	12.556	
8,000.00	7,866.20	7,955.81	7,870.70	29.76	28.80	-106.09	-851.68	420.83	727.69	669.26	58.43	12.453	
8,100.00	7,966.20	8,061.81	7,974.78	30.07	29.19	-107.60	-869.76	427.41	726.67	667.49	59.18	12.279	
8,191.20	8,057.40	8,149.92	8,057.40	30.37	29.54	-110.00	-898.30	437.80	725.98	666.18	59.80	12.140	
8,200.00	8,066.20	8,157.87	8,064.61	30.39	29.58	-110.27	-901.46	438.95	725.99	666.14	59.86	12.129	
8,300.00	8,166.20	8,240.84	8,136.73	30.71	29.92	-113.49	-939.85	452.92	727.92	667.53	60.39	12.053	
8,400.00	8,266.20	8,310.45	8,192.18	31.04	30.20	-116.77	-979.34	467.30	734.83	674.14	60.69	12.108	
8,428.80	8,295.00	8,328.19	8,205.46	31.13	30.28	-117.69	-990.39	471.32	738.02	677.31	60.71	12.156	
8,450.00	8,316.20	8,340.85	8,214.71	31.20	30.33	100.38	-998.51	474.27	740.83	680.12	60.71	12.202	
8,500.00	8,366.02	8,370.30	8,235.47	31.38	30.45	98.06	-1,018.13	481.41	749.26	688.58	60.68	12.347	
8,550.00	8,415.30	8,400.00	8,255.30	31.56	30.57	95.57	-1,038.91	488.98	760.02	699.41	60.60	12.541	
8,600.00	8,463.67	8,427.74	8,272.76	31.75	30.68	93.03	-1,059.16	496.35	772.80	712.35	60.45	12.784	
8,650.00	8,510.75	8,450.00	8,286.01	31.95	30.77	90.60	-1,075.97	502.46	787.36	727.20	60.16	13.088	
8,700.00	8,556.19	8,483.60	8,304.66	32.16	30.91	87.67	-1,102.22	512.02	803.31	743.26	60.04	13.378	
8,750.00	8,599.64	8,511.04	8,318.66	32.37	31.02	84.95	-1,124.40	520.09	820.45	760.64	59.81	13.718	
8,800.00	8,640.77	8,538.20	8,331.38	32.58	31.12	82.25	-1,146.94	528.30	838.48	778.92	59.56	14.077	
8,850.00	8,679.28	8,565.11	8,342.86	32.80	31.23	79.60	-1,169.82	536.62	857.15	797.83	59.33	14.448	
8,900.00	8,714.85	8,600.00	8,356.01	33.02	31.36	76.89	-1,200.18	547.67	876.28	817.04	59.24	14.791	
8,950.00	8,747.24	8,618.31	8,362.12	33.24	31.43	74.59	-1,216.40	553.58	895.46	836.54	58.91	15.200	
9,000.00	8,776.18	8,654.04	8,372.43	33.45	31.56	72.17	-1,248.53	565.27	914.76	855.85	58.90	15.530	
9,050.00	8,801.45	8,670.42	8,376.61	33.67	31.62	70.11	-1,263.46	570.60	933.69	875.04	58.65	15.920	
9,100.00	8,822.88	8,700.00	8,383.81	33.88	31.73	68.16	-1,290.63	579.80	952.39	893.72	58.67	16.232	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,150.00	8,840.29	8,700.00	8,383.81	34.09	31.73	66.31	-1,290.63	579.80	971.01	912.66	58.35	16.642	
9,178.80	8,848.43	8,735.85	8,391.95	34.21	31.86	65.54	-1,323.95	590.20	980.79	922.07	58.72	16.702	
9,200.00	8,853.73	8,746.46	8,394.24	34.30	31.90	65.27	-1,333.90	593.12	988.26	929.47	58.78	16.812	
9,300.00	8,873.56	8,800.00	8,404.89	34.70	32.09	64.16	-1,384.56	606.75	1,023.93	964.70	59.23	17.286	
9,400.00	8,884.77	8,843.06	8,412.39	35.10	32.25	63.07	-1,425.85	616.35	1,060.22	1,000.51	59.71	17.757	
9,478.80	8,887.48	8,900.00	8,420.83	35.42	32.45	62.75	-1,481.11	627.17	1,089.63	1,029.14	60.48	18.015	
9,500.00	8,887.48	8,900.00	8,420.83	35.50	32.45	62.75	-1,481.11	627.17	1,097.31	1,036.80	60.51	18.135	
9,600.00	8,887.48	8,933.01	8,424.93	35.91	32.57	63.36	-1,513.44	632.45	1,137.23	1,076.19	61.04	18.631	
9,700.00	8,887.48	9,000.00	8,431.49	36.33	32.80	64.53	-1,579.56	640.90	1,181.70	1,119.75	61.94	19.078	
9,800.00	8,887.48	9,000.00	8,431.49	36.78	32.80	64.53	-1,579.56	640.90	1,229.11	1,167.05	62.07	19.803	
9,900.00	8,887.48	9,057.70	8,435.21	37.25	33.00	65.44	-1,636.93	645.74	1,279.90	1,217.11	62.80	20.382	
10,000.00	8,887.48	9,100.00	8,436.80	37.74	33.14	66.05	-1,679.14	647.85	1,334.09	1,270.76	63.33	21.065	
10,100.00	8,887.48	9,133.73	8,437.38	38.24	33.25	66.50	-1,712.86	648.65	1,391.16	1,327.41	63.75	21.821	
10,133.80	8,887.48	9,148.59	8,437.44	38.41	33.30	66.69	-1,727.71	648.75	1,411.07	1,347.15	63.92	22.075	
10,200.00	8,887.48	9,195.03	8,437.43	38.76	33.45	67.61	-1,774.16	648.84	1,449.94	1,385.53	64.41	22.511	
10,300.00	8,887.48	9,275.35	8,437.43	39.29	33.72	68.95	-1,854.48	649.00	1,506.68	1,441.46	65.22	23.100	
10,400.00	8,887.48	9,357.70	8,437.43	39.83	34.00	70.13	-1,936.82	649.16	1,560.91	1,494.87	66.04	23.636	
10,500.00	8,887.48	9,441.97	8,437.42	40.37	34.30	71.16	-2,021.10	649.33	1,612.52	1,545.66	66.86	24.118	
10,600.00	8,887.48	9,528.07	8,437.42	40.92	34.62	72.07	-2,107.20	649.50	1,661.41	1,593.72	67.69	24.544	
10,700.00	8,887.48	9,615.90	8,437.41	41.47	34.95	72.87	-2,195.02	649.67	1,707.48	1,638.95	68.53	24.916	
10,800.00	8,887.47	9,705.34	8,437.41	42.02	35.30	73.57	-2,284.46	649.84	1,750.66	1,681.28	69.38	25.232	
10,900.00	8,887.47	9,796.28	8,437.41	42.56	35.66	74.18	-2,375.41	650.02	1,790.86	1,720.61	70.25	25.493	
11,000.00	8,887.47	9,888.62	8,437.40	43.11	36.04	74.72	-2,467.75	650.20	1,828.03	1,756.90	71.13	25.700	
11,100.00	8,887.47	9,982.25	8,437.40	43.65	36.44	75.19	-2,561.37	650.39	1,862.09	1,790.06	72.02	25.854	
11,200.00	8,887.46	10,077.04	8,437.39	44.18	36.84	75.60	-2,656.16	650.57	1,892.99	1,820.06	72.93	25.956	
11,300.00	8,887.46	10,172.89	8,437.39	44.71	37.27	75.95	-2,752.01	650.76	1,920.70	1,846.85	73.85	26.009	
11,400.00	8,887.46	10,269.67	8,437.39	45.22	37.70	76.25	-2,848.79	650.95	1,945.15	1,870.37	74.78	26.012	
11,500.00	8,887.45	10,367.27	8,437.38	45.73	38.15	76.50	-2,946.39	651.14	1,966.32	1,890.60	75.72	25.969	
11,600.00	8,887.45	10,465.57	8,437.38	46.23	38.61	76.71	-3,044.69	651.34	1,984.16	1,907.50	76.66	25.881	
11,700.00	8,887.45	10,564.45	8,437.37	46.72	39.09	76.88	-3,143.57	651.53	1,998.67	1,921.05	77.62	25.750	
11,800.00	8,887.44	10,663.79	8,437.37	47.20	39.57	77.00	-3,242.91	651.73	2,009.81	1,931.23	78.58	25.578	
11,900.00	8,887.44	10,763.47	8,437.36	47.67	40.07	77.09	-3,342.59	651.92	2,017.56	1,938.02	79.54	25.366	
12,000.00	8,887.43	10,863.36	8,437.36	48.13	40.57	77.13	-3,442.48	652.12	2,021.92	1,941.42	80.50	25.117	
12,078.43	8,887.43	10,941.78	8,437.36	48.48	40.97	77.15	-3,520.90	652.27	2,022.96	1,941.70	81.26	24.896	
12,100.00	8,887.43	10,963.35	8,437.36	48.57	41.08	77.15	-3,542.47	652.31	2,022.96	1,941.50	81.46	24.833	
12,200.00	8,887.42	11,063.35	8,437.35	49.01	41.60	77.15	-3,642.47	652.51	2,022.95	1,940.51	82.44	24.539	
12,300.00	8,887.42	11,163.35	8,437.35	49.47	42.13	77.15	-3,742.47	652.71	2,022.94	1,939.51	83.43	24.247	
12,400.00	8,887.41	11,263.35	8,437.34	49.92	42.66	77.15	-3,842.47	652.90	2,022.93	1,938.49	84.44	23.958	
12,500.00	8,887.41	11,363.35	8,437.34	50.39	43.20	77.15	-3,942.47	653.10	2,022.92	1,937.46	85.46	23.671	
12,600.00	8,887.40	11,463.35	8,437.33	50.86	43.75	77.15	-4,042.47	653.30	2,022.91	1,936.42	86.50	23.386	
12,700.00	8,887.40	11,563.35	8,437.33	51.34	44.30	77.14	-4,142.47	653.49	2,022.91	1,935.35	87.55	23.105	
12,800.00	8,887.39	11,663.35	8,437.33	51.82	44.86	77.14	-4,242.47	653.69	2,022.90	1,934.28	88.62	22.827	
12,900.00	8,887.39	11,763.35	8,437.32	52.31	45.43	77.14	-4,342.47	653.89	2,022.89	1,933.19	89.70	22.552	
13,000.00	8,887.38	11,863.35	8,437.32	52.81	46.00	77.14	-4,442.47	654.08	2,022.88	1,932.09	90.79	22.281	
13,100.00	8,887.37	11,963.35	8,437.31	53.31	46.58	77.14	-4,542.47	654.28	2,022.87	1,930.97	91.90	22.012	
13,200.00	8,887.37	12,063.35	8,437.31	53.82	47.16	77.14	-4,642.47	654.47	2,022.86	1,929.85	93.01	21.748	
13,300.00	8,887.36	12,163.35	8,437.30	54.34	47.75	77.14	-4,742.47	654.67	2,022.85	1,928.71	94.14	21.487	
13,400.00	8,887.36	12,263.35	8,437.30	54.86	48.34	77.14	-4,842.47	654.87	2,022.84	1,927.56	95.28	21.230	
13,500.00	8,887.35	12,363.35	8,437.29	55.38	48.94	77.14	-4,942.47	655.06	2,022.83	1,926.40	96.43	20.976	
13,600.00	8,887.35	12,463.35	8,437.29	55.91	49.54	77.14	-5,042.47	655.26	2,022.83	1,925.23	97.60	20.727	
13,700.00	8,887.34	12,563.35	8,437.29	56.45	50.15	77.14	-5,142.47	655.46	2,022.82	1,924.05	98.77	20.481	
13,800.00	8,887.34	12,663.35	8,437.28	56.99	50.76	77.14	-5,242.47	655.65	2,022.81	1,922.86	99.95	20.239	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - 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
13,900.00	8,887.33	12,763.35	8,437.28	57.54	51.37	77.14	-5,342.47	655.85	2,022.80	1,921.66	101.14	20.000	
14,000.00	8,887.33	12,863.35	8,437.27	58.09	51.99	77.14	-5,442.47	656.05	2,022.79	1,920.45	102.34	19.766	
14,100.00	8,887.32	12,963.35	8,437.27	58.64	52.61	77.14	-5,542.47	656.24	2,022.78	1,919.24	103.55	19.535	
14,200.00	8,887.32	13,063.35	8,437.26	59.20	53.24	77.14	-5,642.47	656.44	2,022.77	1,918.01	104.76	19.308	
14,300.00	8,887.31	13,163.35	8,437.26	59.77	53.87	77.14	-5,742.47	656.63	2,022.76	1,916.78	105.99	19.085	
14,400.00	8,887.31	13,263.35	8,437.26	60.34	54.50	77.14	-5,842.47	656.83	2,022.76	1,915.54	107.22	18.865	
14,500.00	8,887.30	13,363.35	8,437.25	60.91	55.14	77.14	-5,942.47	657.03	2,022.75	1,914.29	108.46	18.650	
14,600.00	8,887.30	13,463.35	8,437.25	61.49	55.78	77.14	-6,042.47	657.22	2,022.74	1,913.03	109.71	18.438	
14,700.00	8,887.29	13,563.35	8,437.24	62.07	56.42	77.14	-6,142.47	657.42	2,022.73	1,911.77	110.96	18.229	
14,800.00	8,887.29	13,663.35	8,437.24	62.65	57.07	77.14	-6,242.47	657.62	2,022.72	1,910.50	112.22	18.024	
14,900.00	8,887.28	13,763.35	8,437.23	63.24	57.72	77.14	-6,342.47	657.81	2,022.71	1,909.22	113.49	17.823	
15,000.00	8,887.28	13,863.35	8,437.23	63.83	58.37	77.14	-6,442.47	658.01	2,022.70	1,907.94	114.77	17.625	
15,100.00	8,887.27	13,963.35	8,437.22	64.43	59.02	77.14	-6,542.47	658.21	2,022.69	1,906.65	116.05	17.430	
15,200.00	8,887.27	14,063.35	8,437.22	65.03	59.68	77.14	-6,642.47	658.40	2,022.68	1,905.35	117.33	17.239	
15,300.00	8,887.26	14,163.35	8,437.22	65.63	60.34	77.14	-6,742.47	658.60	2,022.68	1,904.05	118.63	17.051	
15,400.00	8,887.25	14,263.35	8,437.21	66.24	61.00	77.14	-6,842.47	658.80	2,022.67	1,902.74	119.92	16.866	
15,500.00	8,887.25	14,363.35	8,437.21	66.85	61.66	77.14	-6,942.47	658.99	2,022.66	1,901.43	121.23	16.685	
15,600.00	8,887.24	14,463.35	8,437.20	67.46	62.33	77.14	-7,042.47	659.19	2,022.65	1,900.11	122.54	16.507	
15,700.00	8,887.24	14,563.35	8,437.20	68.07	63.00	77.14	-7,142.47	659.38	2,022.64	1,898.79	123.85	16.331	
15,800.00	8,887.23	14,663.35	8,437.19	68.69	63.67	77.14	-7,242.47	659.58	2,022.63	1,897.46	125.17	16.159	
15,900.00	8,887.23	14,763.35	8,437.19	69.31	64.34	77.14	-7,342.47	659.78	2,022.62	1,896.13	126.49	15.990	
16,000.00	8,887.22	14,863.35	8,437.19	69.94	65.02	77.14	-7,442.47	659.97	2,022.61	1,894.79	127.82	15.824	
16,100.00	8,887.22	14,963.35	8,437.18	70.56	65.69	77.14	-7,542.47	660.17	2,022.60	1,893.45	129.15	15.661	
16,200.00	8,887.21	15,063.35	8,437.18	71.19	66.37	77.14	-7,642.46	660.37	2,022.60	1,892.11	130.49	15.500	
16,300.00	8,887.21	15,163.35	8,437.17	71.83	67.05	77.14	-7,742.46	660.56	2,022.59	1,890.76	131.83	15.342	
16,400.00	8,887.20	15,263.35	8,437.17	72.46	67.73	77.14	-7,842.46	660.76	2,022.58	1,889.40	133.17	15.187	
16,500.00	8,887.20	15,363.35	8,437.16	73.10	68.42	77.14	-7,942.46	660.96	2,022.57	1,888.04	134.52	15.035	
16,600.00	8,887.19	15,463.35	8,437.16	73.74	69.10	77.14	-8,042.46	661.15	2,022.56	1,886.68	135.88	14.885	
16,700.00	8,887.19	15,563.35	8,437.15	74.38	69.79	77.14	-8,142.46	661.35	2,022.55	1,885.32	137.23	14.738	
16,800.00	8,887.18	15,663.35	8,437.15	75.02	70.48	77.14	-8,242.46	661.54	2,022.54	1,883.95	138.59	14.593	
16,900.00	8,887.18	15,763.35	8,437.15	75.67	71.17	77.14	-8,342.46	661.74	2,022.53	1,882.58	139.96	14.451	
17,000.00	8,887.17	15,863.35	8,437.14	76.32	71.86	77.14	-8,442.46	661.94	2,022.52	1,881.20	141.33	14.311	
17,100.00	8,887.17	15,963.35	8,437.14	76.97	72.56	77.14	-8,542.46	662.13	2,022.52	1,879.82	142.70	14.174	
17,200.00	8,887.16	16,063.35	8,437.13	77.62	73.25	77.14	-8,642.46	662.33	2,022.51	1,878.44	144.07	14.038	
17,300.00	8,887.16	16,163.35	8,437.13	78.28	73.95	77.14	-8,742.46	662.53	2,022.50	1,877.05	145.45	13.905	
17,400.00	8,887.15	16,263.35	8,437.12	78.93	74.64	77.14	-8,842.46	662.72	2,022.49	1,875.66	146.83	13.775	
17,500.00	8,887.14	16,363.35	8,437.12	79.59	75.34	77.14	-8,942.46	662.92	2,022.48	1,874.27	148.21	13.646	
17,600.00	8,887.14	16,463.35	8,437.12	80.25	76.04	77.14	-9,042.46	663.12	2,022.47	1,872.88	149.60	13.520	
17,700.00	8,887.13	16,563.35	8,437.11	80.91	76.74	77.14	-9,142.46	663.31	2,022.46	1,871.48	150.98	13.395	
17,800.00	8,887.13	16,663.35	8,437.11	81.58	77.45	77.14	-9,242.46	663.51	2,022.45	1,870.08	152.38	13.273	
17,900.00	8,887.12	16,763.35	8,437.10	82.24	78.15	77.14	-9,342.46	663.71	2,022.44	1,868.68	153.77	13.152	
18,000.00	8,887.12	16,863.35	8,437.10	82.91	78.86	77.14	-9,442.46	663.90	2,022.44	1,867.27	155.17	13.034	
18,100.00	8,887.11	16,963.35	8,437.09	83.58	79.56	77.14	-9,542.46	664.10	2,022.43	1,865.86	156.57	12.917	
18,200.00	8,887.11	17,063.35	8,437.09	84.25	80.27	77.14	-9,642.46	664.29	2,022.42	1,864.45	157.97	12.803	
18,300.00	8,887.10	17,163.35	8,437.08	84.92	80.98	77.14	-9,742.46	664.49	2,022.41	1,863.04	159.37	12.690	
18,400.00	8,887.10	17,263.35	8,437.08	85.60	81.69	77.14	-9,842.46	664.69	2,022.40	1,861.62	160.78	12.579	
18,500.00	8,887.09	17,363.35	8,437.08	86.27	82.40	77.14	-9,942.46	664.88	2,022.39	1,860.21	162.19	12.470	
18,600.00	8,887.09	17,463.35	8,437.07	86.95	83.11	77.14	-10,042.46	665.08	2,022.38	1,858.79	163.60	12.362	
18,700.00	8,887.08	17,563.35	8,437.07	87.63	83.82	77.14	-10,142.46	665.28	2,022.37	1,857.37	165.01	12.256	
18,800.00	8,887.08	17,663.35	8,437.06	88.31	84.53	77.14	-10,242.46	665.47	2,022.37	1,855.94	166.42	12.152	
18,900.00	8,887.07	17,763.35	8,437.06	88.99	85.25	77.14	-10,342.46	665.67	2,022.36	1,854.52	167.84	12.049	
19,000.00	8,887.07	17,863.35	8,437.05	89.67	85.96	77.14	-10,442.46	665.87	2,022.35	1,853.09	169.26	11.948	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - 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
19,100.00	8,887.06	17,963.35	8,437.05	90.36	86.68	77.14	-10,542.46	666.06	2,022.34	1,851.66	170.68	11.849	
19,200.00	8,887.06	18,063.35	8,437.05	91.04	87.39	77.14	-10,642.46	666.26	2,022.33	1,850.23	172.10	11.751	
19,300.00	8,887.05	18,163.35	8,437.04	91.73	88.11	77.14	-10,742.46	666.45	2,022.32	1,848.79	173.53	11.654	
19,400.00	8,887.05	18,263.35	8,437.04	92.42	88.83	77.14	-10,842.46	666.65	2,022.31	1,847.36	174.95	11.559	
19,500.00	8,887.04	18,363.35	8,437.03	93.11	89.55	77.14	-10,942.46	666.85	2,022.30	1,845.92	176.38	11.465	
19,600.00	8,887.04	18,463.35	8,437.03	93.80	90.27	77.14	-11,042.46	667.04	2,022.29	1,844.48	177.81	11.373	
19,700.00	8,887.03	18,563.35	8,437.02	94.49	90.99	77.14	-11,142.46	667.24	2,022.29	1,843.04	179.24	11.282	
19,800.00	8,887.02	18,663.35	8,437.02	95.18	91.71	77.14	-11,242.46	667.44	2,022.28	1,841.60	180.68	11.193	
19,900.00	8,887.02	18,763.35	8,437.02	95.87	92.43	77.14	-11,342.46	667.63	2,022.27	1,840.16	182.11	11.105	
20,000.00	8,887.01	18,863.35	8,437.01	96.57	93.15	77.14	-11,442.46	667.83	2,022.26	1,838.71	183.55	11.018	
20,100.00	8,887.01	18,963.35	8,437.01	97.26	93.88	77.14	-11,542.46	668.03	2,022.25	1,837.26	184.99	10.932	
20,200.00	8,887.00	19,063.35	8,437.00	97.96	94.60	77.14	-11,642.46	668.22	2,022.24	1,835.82	186.43	10.847	
20,239.93	8,887.00	19,103.28	8,437.00	98.24	94.90	77.14	-11,682.38	668.30	2,022.24	1,835.24	187.00	10.814	
20,266.44	8,887.00	19,103.82	8,437.00	98.42	94.91	77.14	-11,682.92	668.30	2,022.40	1,835.56	186.84	10.824	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	0.76	-39.99	40.00				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	0.76	-39.99	40.00	39.45	0.55	72.453	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	0.76	-39.99	40.00	38.73	1.27	31.519	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	0.76	-39.99	40.00	38.01	1.99	20.140	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	0.76	-39.99	40.00	37.29	2.70	14.798	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	0.76	-39.99	40.00	36.58	3.42	11.696	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	0.76	-39.99	40.00	35.86	4.14	9.669	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	0.76	-39.99	40.00	35.14	4.85	8.241	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	0.76	-39.99	40.00	34.43	5.57	7.180	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	0.76	-39.99	40.00	33.71	6.29	6.361	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	0.76	-39.99	40.00	32.99	7.00	5.710	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	-88.91	0.76	-39.99	40.00	32.28	7.72	5.180	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-88.91	0.76	-39.99	40.00	31.56	8.44	4.740	CC, ES
1,300.00	1,299.98	1,299.98	1,299.98	4.56	4.58	152.24	0.76	-39.99	41.53	32.39	9.14	4.543	SF
1,400.00	1,399.84	1,399.84	1,399.84	4.90	4.94	155.22	0.76	-39.99	46.23	36.39	9.84	4.700	
1,500.00	1,499.45	1,499.45	1,499.45	5.24	5.29	159.02	0.76	-39.99	54.27	43.74	10.53	5.153	
1,600.00	1,598.70	1,598.70	1,598.70	5.58	5.65	162.75	0.76	-39.99	65.80	54.57	11.23	5.860	
1,700.00	1,697.47	1,697.47	1,697.47	5.93	6.00	165.96	0.76	-39.99	80.88	68.95	11.93	6.782	
1,800.00	1,795.62	1,795.62	1,795.62	6.28	6.35	168.55	0.76	-39.99	99.51	86.89	12.62	7.882	
1,810.29	1,805.68	1,805.68	1,805.68	6.32	6.39	168.65	0.76	-39.99	101.63	88.93	12.70	8.003	
1,900.00	1,893.37	1,893.37	1,893.37	6.63	6.70	170.42	0.76	-39.99	120.29	106.97	13.32	9.030	
2,000.00	1,991.11	1,991.11	1,991.11	6.99	7.06	171.85	0.76	-39.99	141.19	127.17	14.02	10.072	
2,100.00	2,088.85	2,093.35	2,093.33	7.35	7.41	172.67	-0.47	-39.10	160.91	146.19	14.72	10.930	
2,200.00	2,186.59	2,197.20	2,197.04	7.72	7.75	172.69	-4.74	-36.01	177.63	162.21	15.41	11.526	
2,300.00	2,284.33	2,302.01	2,301.46	8.08	8.10	172.12	-12.12	-30.66	191.27	175.17	16.10	11.881	
2,400.00	2,382.07	2,407.52	2,406.15	8.45	8.45	171.03	-22.68	-23.02	201.85	185.06	16.78	12.026	
2,500.00	2,479.81	2,513.44	2,510.70	8.82	8.80	169.47	-36.41	-13.09	209.44	191.97	17.47	11.991	
2,600.00	2,577.55	2,619.49	2,614.67	9.19	9.16	167.40	-53.29	-0.87	214.17	196.02	18.15	11.801	
2,700.00	2,675.29	2,720.61	2,713.27	9.57	9.51	165.10	-71.49	12.30	217.07	198.21	18.86	11.508	
2,800.00	2,773.03	2,820.20	2,810.34	9.94	9.85	162.87	-89.49	25.33	220.23	200.64	19.59	11.242	
2,900.00	2,870.77	2,919.78	2,907.41	10.32	10.20	160.71	-107.50	38.37	223.71	203.39	20.32	11.008	
3,000.00	2,968.51	3,019.37	3,004.49	10.70	10.55	158.61	-125.51	51.40	227.50	206.44	21.06	10.803	
3,100.00	3,066.25	3,118.96	3,101.56	11.07	10.90	156.59	-143.52	64.43	231.59	209.79	21.80	10.623	
3,200.00	3,163.99	3,218.54	3,198.63	11.45	11.25	154.64	-161.53	77.47	235.96	213.41	22.55	10.466	
3,300.00	3,261.73	3,318.13	3,295.71	11.83	11.61	152.76	-179.54	90.50	240.59	217.30	23.29	10.329	
3,400.00	3,359.47	3,417.71	3,392.78	12.21	11.97	150.96	-197.54	103.53	245.47	221.43	24.04	10.210	
3,500.00	3,457.21	3,517.30	3,489.85	12.59	12.33	149.22	-215.55	116.57	250.59	225.79	24.80	10.106	
3,600.00	3,554.95	3,616.88	3,586.92	12.97	12.70	147.56	-233.56	129.60	255.93	230.38	25.55	10.017	
3,700.00	3,652.69	3,716.47	3,684.00	13.35	13.06	145.97	-251.57	142.63	261.47	235.16	26.31	9.939	
3,800.00	3,750.43	3,816.06	3,781.07	13.73	13.43	144.44	-269.58	155.67	267.21	240.15	27.06	9.873	
3,900.00	3,848.17	3,915.64	3,878.14	14.12	13.80	142.98	-287.59	168.70	273.13	245.31	27.82	9.816	
4,000.00	3,945.91	4,015.23	3,975.22	14.50	14.17	141.58	-305.60	181.73	279.22	250.64	28.58	9.768	
4,100.00	4,043.65	4,114.81	4,072.29	14.88	14.54	140.24	-323.60	194.77	285.48	256.13	29.35	9.728	
4,200.00	4,141.39	4,214.40	4,169.36	15.27	14.91	138.95	-341.61	207.80	291.88	261.77	30.11	9.694	
4,300.00	4,239.13	4,313.98	4,266.43	15.65	15.28	137.73	-359.62	220.84	298.42	267.54	30.87	9.666	
4,400.00	4,336.87	4,413.57	4,363.51	16.03	15.66	136.55	-377.63	233.87	305.09	273.45	31.64	9.643	
4,500.00	4,434.61	4,513.16	4,460.58	16.42	16.03	135.43	-395.64	246.90	311.88	279.48	32.40	9.626	
4,600.00	4,532.35	4,612.74	4,557.65	16.80	16.41	134.36	-413.65	259.94	318.79	285.62	33.17	9.612	
4,700.00	4,630.09	4,712.33	4,654.73	17.19	16.78	133.33	-431.65	272.97	325.81	291.87	33.93	9.601	
4,800.00	4,727.83	4,811.91	4,751.80	17.57	17.16	132.34	-449.66	286.00	332.92	298.22	34.70	9.594	
4,900.00	4,825.57	4,911.50	4,848.87	17.96	17.54	131.40	-467.67	299.04	340.14	304.67	35.47	9.590	
5,000.00	4,923.31	5,011.08	4,945.94	18.34	17.92	130.49	-485.68	312.07	347.43	311.20	36.24	9.588	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - 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
5,100.00	5,021.05	5,110.67	5,043.02	18.73	18.29	129.62	-503.69	325.10	354.82	317.81	37.00	9.589	
5,200.00	5,118.79	5,210.26	5,140.09	19.11	18.67	128.79	-521.70	338.14	362.28	324.50	37.77	9.591	
5,300.00	5,216.53	5,309.84	5,237.16	19.50	19.05	127.99	-539.70	351.17	369.81	331.27	38.54	9.595	
5,400.00	5,314.27	5,409.43	5,334.24	19.89	19.43	127.23	-557.71	364.20	377.41	338.10	39.31	9.601	
5,500.00	5,412.01	5,509.01	5,431.31	20.27	19.82	126.49	-575.72	377.24	385.08	345.00	40.08	9.608	
5,600.00	5,509.75	5,608.60	5,528.38	20.66	20.20	125.78	-593.73	390.27	392.80	351.96	40.85	9.616	
5,700.00	5,607.50	5,708.18	5,625.45	21.05	20.58	125.10	-611.74	403.31	400.59	358.97	41.62	9.625	
5,800.00	5,705.24	5,807.77	5,722.53	21.43	20.96	124.45	-629.75	416.34	408.43	366.04	42.39	9.635	
5,900.00	5,802.98	5,907.36	5,819.60	21.82	21.34	123.82	-647.76	429.37	416.32	373.16	43.16	9.646	
6,000.00	5,900.72	6,006.94	5,916.67	22.21	21.73	123.21	-665.76	442.41	424.26	380.32	43.93	9.657	
6,100.00	5,998.46	6,106.53	6,013.75	22.59	22.11	122.63	-683.77	455.44	432.24	387.54	44.70	9.669	
6,200.00	6,096.20	6,206.11	6,110.82	22.98	22.49	122.07	-701.78	468.47	440.27	394.79	45.47	9.682	
6,300.00	6,193.94	6,305.70	6,207.89	23.37	22.88	121.53	-719.79	481.51	448.33	402.09	46.24	9.695	
6,400.00	6,291.68	6,405.28	6,304.96	23.75	23.26	121.00	-737.80	494.54	456.44	409.42	47.02	9.708	
6,500.00	6,389.42	6,503.23	6,400.69	24.14	23.64	120.65	-754.58	506.69	464.73	416.95	47.77	9.727	
6,600.00	6,487.16	6,600.00	6,495.90	24.53	24.00	120.70	-768.58	516.82	473.44	424.92	48.52	9.758	
6,700.00	6,584.90	6,698.27	6,593.12	24.92	24.37	121.15	-780.13	525.18	482.60	433.33	49.27	9.795	
6,800.00	6,682.64	6,795.24	6,689.49	25.30	24.72	121.96	-788.87	531.51	492.27	442.27	50.00	9.845	
6,900.00	6,780.38	6,891.56	6,785.51	25.69	25.06	123.10	-794.93	535.89	502.59	451.87	50.72	9.909	
7,000.00	6,878.12	6,987.00	6,880.86	26.08	25.40	124.54	-798.35	538.37	513.73	462.31	51.42	9.990	
7,100.00	6,975.86	7,079.56	6,973.40	26.47	25.71	126.18	-799.39	539.04	525.96	473.88	52.08	10.099	
7,200.00	7,073.60	7,163.28	7,056.66	26.86	26.01	126.87	-807.29	540.65	540.58	487.93	52.65	10.267	
7,300.00	7,171.34	7,250.00	7,140.71	27.24	26.34	126.23	-827.90	544.84	557.98	504.73	53.25	10.478	
7,323.61	7,194.42	7,265.49	7,155.34	27.34	26.40	125.98	-832.88	545.85	562.50	509.17	53.32	10.549	
7,400.00	7,269.29	7,325.38	7,210.47	27.63	26.63	124.84	-855.73	550.50	577.90	524.25	53.65	10.771	
7,500.00	7,367.86	7,400.00	7,275.27	28.01	26.93	122.59	-891.88	557.86	600.20	546.28	53.93	11.130	
7,600.00	7,466.96	7,460.57	7,323.99	28.38	27.18	120.28	-927.10	565.02	626.38	572.61	53.77	11.648	
7,700.00	7,566.46	7,514.63	7,364.06	28.74	27.40	117.98	-962.63	572.25	657.86	604.59	53.28	12.348	
7,800.00	7,666.25	7,560.10	7,395.00	29.09	27.58	116.03	-995.27	578.89	695.53	643.14	52.39	13.277	
7,900.00	7,766.20	7,600.00	7,419.89	29.43	27.74	114.43	-1,025.82	585.11	739.71	688.48	51.23	14.438	
7,933.80	7,800.00	7,600.00	7,419.89	29.55	27.74	-125.09	-1,025.82	585.11	756.20	705.74	50.45	14.988	
8,000.00	7,866.20	7,629.59	7,436.92	29.76	27.86	-127.01	-1,049.53	589.93	790.49	740.74	49.75	15.888	
8,100.00	7,966.20	7,650.00	7,447.92	30.07	27.94	-128.33	-1,066.37	593.36	848.13	800.06	48.07	17.642	
8,200.00	8,066.20	7,680.06	7,463.00	30.39	28.06	-130.28	-1,091.85	598.54	911.59	864.79	46.81	19.476	
8,300.00	8,166.20	7,700.00	7,472.24	30.71	28.14	-131.56	-1,109.16	602.06	980.14	934.72	45.42	21.580	
8,400.00	8,266.20	7,718.22	7,480.15	31.04	28.21	-132.72	-1,125.25	605.34	1,052.91	1,008.74	44.17	23.837	
8,428.80	8,295.00	7,722.94	7,482.11	31.13	28.22	-133.02	-1,129.46	606.19	1,074.56	1,030.72	43.83	24.514	
8,450.00	8,316.20	7,726.44	7,483.54	31.20	28.24	83.30	-1,132.58	606.83	1,090.65	1,047.05	43.59	25.018	
8,500.00	8,366.02	7,750.00	7,492.67	31.38	28.33	76.23	-1,153.87	611.16	1,129.13	1,085.69	43.44	25.994	
8,550.00	8,415.30	7,750.00	7,492.67	31.56	28.33	70.59	-1,153.87	611.16	1,167.22	1,124.53	42.69	27.342	
8,600.00	8,463.67	7,750.00	7,492.67	31.75	28.33	65.16	-1,153.87	611.16	1,205.26	1,163.29	41.97	28.716	
8,650.00	8,510.75	7,750.00	7,492.67	31.95	28.33	60.06	-1,153.87	611.16	1,243.00	1,201.71	41.29	30.104	
8,700.00	8,556.19	7,776.84	7,501.96	32.16	28.43	54.96	-1,178.53	616.18	1,279.35	1,238.08	41.27	31.003	
8,750.00	8,599.64	7,800.00	7,509.03	32.37	28.52	50.68	-1,200.15	620.58	1,315.04	1,273.88	41.16	31.948	
8,800.00	8,640.77	7,800.00	7,509.03	32.58	28.52	47.17	-1,200.15	620.58	1,349.11	1,308.55	40.57	33.256	
8,850.00	8,679.28	7,816.16	7,513.43	32.80	28.58	44.06	-1,215.38	623.67	1,381.84	1,341.48	40.36	34.241	
8,900.00	8,714.85	7,816.16	7,513.43	33.02	28.58	41.36	-1,215.38	623.67	1,412.94	1,373.09	39.85	35.454	
8,950.00	8,747.24	7,846.83	7,521.02	33.24	28.69	39.20	-1,244.54	629.41	1,441.82	1,401.83	40.00	36.050	
9,000.00	8,776.18	7,865.12	7,525.21	33.45	28.75	37.37	-1,262.04	632.67	1,468.71	1,428.78	39.93	36.785	
9,050.00	8,801.45	7,900.00	7,532.50	33.67	28.88	36.06	-1,295.64	638.55	1,493.55	1,453.35	40.20	37.150	
9,100.00	8,822.88	7,900.00	7,532.50	33.88	28.88	34.63	-1,295.64	638.55	1,515.64	1,475.76	39.88	38.002	
9,150.00	8,840.29	7,900.00	7,532.50	34.09	28.88	33.40	-1,295.64	638.55	1,535.83	1,496.19	39.64	38.748	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,178.80	8,848.43	7,931.33	7,538.25	34.21	28.99	33.25	-1,326.04	643.44	1,545.82	1,505.77	40.05	38.600	
9,200.00	8,853.73	7,939.14	7,539.57	34.30	29.02	33.16	-1,333.66	644.60	1,553.04	1,512.94	40.10	38.728	
9,300.00	8,873.56	8,000.00	7,548.24	34.70	29.24	33.21	-1,393.32	652.87	1,585.58	1,544.75	40.83	38.833	
9,400.00	8,884.77	8,000.00	7,548.24	35.10	29.24	32.41	-1,393.32	652.87	1,614.10	1,573.33	40.77	39.589	
9,478.80	8,887.48	8,038.91	7,552.29	35.42	29.37	32.53	-1,431.75	657.42	1,634.51	1,593.10	41.41	39.469	
9,500.00	8,887.48	8,046.27	7,552.92	35.50	29.40	32.66	-1,439.04	658.22	1,639.85	1,598.30	41.55	39.464	
9,600.00	8,887.48	8,100.00	7,556.27	35.91	29.58	33.62	-1,492.41	663.39	1,667.66	1,625.16	42.50	39.240	
9,700.00	8,887.48	8,100.00	7,556.27	36.33	29.58	33.62	-1,492.41	663.39	1,698.86	1,656.01	42.85	39.648	
9,800.00	8,887.48	8,153.26	7,557.37	36.78	29.76	34.53	-1,545.50	667.41	1,733.65	1,689.81	43.84	39.543	
9,900.00	8,887.48	8,221.73	7,557.37	37.25	29.99	35.67	-1,613.83	671.86	1,771.19	1,726.20	44.99	39.365	
10,000.00	8,887.48	8,303.38	7,557.36	37.74	30.28	36.99	-1,695.30	677.16	1,809.85	1,763.57	46.28	39.105	
10,100.00	8,887.48	8,385.02	7,557.36	38.24	30.57	38.26	-1,776.77	682.47	1,849.50	1,801.92	47.57	38.877	
10,133.80	8,887.48	8,412.61	7,557.36	38.41	30.67	38.69	-1,804.30	684.26	1,863.11	1,815.10	48.01	38.808	
10,200.00	8,887.48	8,467.09	7,557.36	38.76	30.88	39.93	-1,858.67	687.81	1,889.63	1,840.78	48.86	38.677	
10,300.00	8,887.48	8,551.01	7,557.36	39.29	31.20	41.70	-1,942.41	693.26	1,928.65	1,878.53	50.12	38.484	
10,400.00	8,887.48	8,636.76	7,557.35	39.83	31.54	43.33	-2,027.98	698.84	1,966.21	1,914.85	51.35	38.290	
10,500.00	8,887.48	8,724.27	7,557.35	40.37	31.90	44.82	-2,115.30	704.52	2,002.12	1,949.55	52.57	38.087	
10,600.00	8,887.48	8,813.40	7,557.35	40.92	32.27	46.18	-2,204.25	710.32	2,036.21	1,982.45	53.77	37.872	
10,700.00	8,887.48	8,904.07	7,557.34	41.47	32.66	47.42	-2,294.72	716.21	2,068.33	2,013.38	54.95	37.640	
10,800.00	8,887.47	8,996.15	7,557.34	42.02	33.07	48.53	-2,386.60	722.20	2,098.34	2,042.22	56.12	37.388	
10,900.00	8,887.47	9,089.53	7,557.34	42.56	33.49	49.53	-2,479.79	728.27	2,126.11	2,068.83	57.29	37.114	
11,000.00	8,887.47	9,184.11	7,557.33	43.11	33.93	50.42	-2,574.17	734.41	2,151.54	2,093.10	58.44	36.817	
11,100.00	8,887.47	9,279.76	7,557.33	43.65	34.38	51.19	-2,669.62	740.63	2,174.53	2,114.95	59.58	36.497	
11,200.00	8,887.46	9,376.37	7,557.33	44.18	34.85	51.87	-2,766.02	746.91	2,194.99	2,134.28	60.71	36.154	
11,300.00	8,887.46	9,473.82	7,557.32	44.71	35.33	52.45	-2,863.27	753.25	2,212.86	2,151.02	61.83	35.787	
11,400.00	8,887.46	9,572.00	7,557.32	45.22	35.82	52.93	-2,961.24	759.63	2,228.07	2,165.12	62.95	35.396	
11,500.00	8,887.45	9,670.77	7,557.31	45.73	36.33	53.32	-3,059.81	766.05	2,240.56	2,176.52	64.05	34.983	
11,600.00	8,887.45	9,770.03	7,557.31	46.23	36.85	53.62	-3,158.86	772.50	2,250.31	2,185.17	65.14	34.548	
11,700.00	8,887.45	9,869.66	7,557.31	46.72	37.37	53.83	-3,258.27	778.98	2,257.27	2,191.06	66.21	34.092	
11,800.00	8,887.44	9,969.52	7,557.30	47.20	37.91	53.96	-3,357.92	785.47	2,261.43	2,194.16	67.27	33.616	
11,900.00	8,887.44	10,069.50	7,557.30	47.67	38.46	54.00	-3,457.69	791.97	2,262.77	2,194.45	68.32	33.121	
12,000.00	8,887.43	10,169.48	7,557.30	48.13	39.01	53.95	-3,557.45	798.47	2,261.29	2,191.94	69.35	32.608	
12,078.43	8,887.43	10,247.81	7,557.29	48.48	39.45	53.86	-3,635.62	803.56	2,258.15	2,188.01	70.14	32.195	
12,100.00	8,887.43	10,269.34	7,557.29	48.57	39.57	53.84	-3,657.10	804.96	2,257.05	2,186.69	70.36	32.080	
12,200.00	8,887.42	10,369.14	7,557.29	49.01	40.14	53.74	-3,756.69	811.45	2,251.95	2,180.58	71.37	31.552	
12,300.00	8,887.42	10,468.94	7,557.29	49.47	40.71	53.65	-3,856.28	817.93	2,246.86	2,174.45	72.41	31.031	
12,400.00	8,887.41	10,568.74	7,557.28	49.92	41.29	53.55	-3,955.87	824.42	2,241.77	2,168.31	73.46	30.517	
12,500.00	8,887.41	10,668.54	7,557.28	50.39	41.88	53.46	-4,055.46	830.91	2,236.69	2,162.17	74.53	30.012	
12,600.00	8,887.40	10,768.34	7,557.27	50.86	42.47	53.36	-4,155.05	837.40	2,231.62	2,156.01	75.61	29.515	
12,700.00	8,887.40	10,868.14	7,557.27	51.34	43.07	53.26	-4,254.64	843.88	2,226.55	2,149.85	76.71	29.026	
12,800.00	8,887.39	10,967.94	7,557.27	51.82	43.67	53.16	-4,354.23	850.37	2,221.49	2,143.67	77.82	28.547	
12,900.00	8,887.39	11,067.74	7,557.26	52.31	44.28	53.07	-4,453.82	856.86	2,216.44	2,137.49	78.95	28.075	
13,000.00	8,887.38	11,167.54	7,557.26	52.81	44.89	52.97	-4,553.41	863.34	2,211.39	2,131.31	80.08	27.613	
13,100.00	8,887.37	11,267.34	7,557.26	53.31	45.51	52.87	-4,653.00	869.83	2,206.35	2,125.11	81.24	27.160	
13,200.00	8,887.37	11,367.14	7,557.25	53.82	46.13	52.77	-4,752.59	876.32	2,201.31	2,118.92	82.40	26.715	
13,300.00	8,887.36	11,466.94	7,557.25	54.34	46.76	52.67	-4,852.18	882.81	2,196.29	2,112.71	83.57	26.279	
13,400.00	8,887.36	11,566.74	7,557.25	54.86	47.39	52.57	-4,951.76	889.29	2,191.27	2,106.50	84.76	25.852	
13,500.00	8,887.35	11,666.54	7,557.24	55.38	48.02	52.47	-5,051.35	895.78	2,186.25	2,100.29	85.96	25.434	
13,600.00	8,887.35	11,766.35	7,557.24	55.91	48.66	52.37	-5,150.94	902.27	2,181.24	2,094.08	87.16	25.025	
13,700.00	8,887.34	11,866.15	7,557.24	56.45	49.30	52.27	-5,250.53	908.76	2,176.24	2,087.86	88.38	24.624	
13,800.00	8,887.34	11,965.95	7,557.23	56.99	49.95	52.17	-5,350.12	915.24	2,171.25	2,081.64	89.61	24.231	
13,900.00	8,887.33	12,065.75	7,557.23	57.54	50.60	52.06	-5,449.71	921.73	2,166.26	2,075.42	90.84	23.847	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - 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
14,000.00	8,887.33	12,165.55	7,557.22	58.09	51.25	51.96	-5,549.30	928.22	2,161.28	2,069.19	92.09	23.470	
14,100.00	8,887.32	12,265.35	7,557.22	58.64	51.91	51.86	-5,648.89	934.71	2,156.31	2,062.97	93.34	23.102	
14,200.00	8,887.32	12,365.15	7,557.22	59.20	52.57	51.75	-5,748.48	941.19	2,151.34	2,056.74	94.60	22.742	
14,300.00	8,887.31	12,464.95	7,557.21	59.77	53.23	51.65	-5,848.07	947.68	2,146.38	2,050.51	95.87	22.390	
14,400.00	8,887.31	12,564.75	7,557.21	60.34	53.90	51.55	-5,947.66	954.17	2,141.43	2,044.29	97.14	22.045	
14,500.00	8,887.30	12,664.55	7,557.21	60.91	54.56	51.44	-6,047.25	960.66	2,136.48	2,038.06	98.42	21.707	
14,600.00	8,887.30	12,764.35	7,557.20	61.49	55.24	51.34	-6,146.84	967.14	2,131.54	2,031.83	99.71	21.377	
14,700.00	8,887.29	12,864.15	7,557.20	62.07	55.91	51.23	-6,246.43	973.63	2,126.61	2,025.61	101.01	21.054	
14,800.00	8,887.29	12,963.95	7,557.20	62.65	56.58	51.12	-6,346.02	980.12	2,121.69	2,019.38	102.31	20.738	
14,900.00	8,887.28	13,063.75	7,557.19	63.24	57.26	51.02	-6,445.61	986.60	2,116.77	2,013.16	103.62	20.429	
15,000.00	8,887.28	13,163.55	7,557.19	63.83	57.94	50.91	-6,545.20	993.09	2,111.87	2,006.93	104.93	20.126	
15,100.00	8,887.27	13,263.35	7,557.18	64.43	58.63	50.80	-6,644.79	999.58	2,106.96	2,000.71	106.25	19.830	
15,200.00	8,887.27	13,363.15	7,557.18	65.03	59.31	50.69	-6,744.37	1,006.07	2,102.07	1,994.49	107.58	19.540	
15,300.00	8,887.26	13,462.95	7,557.18	65.63	60.00	50.58	-6,843.96	1,012.55	2,097.19	1,988.28	108.91	19.256	
15,400.00	8,887.25	13,562.75	7,557.17	66.24	60.69	50.47	-6,943.55	1,019.04	2,092.31	1,982.06	110.25	18.979	
15,500.00	8,887.25	13,662.55	7,557.17	66.85	61.38	50.36	-7,043.14	1,025.53	2,087.44	1,975.85	111.59	18.707	
15,600.00	8,887.24	13,762.36	7,557.17	67.46	62.07	50.25	-7,142.73	1,032.02	2,082.57	1,969.64	112.93	18.441	
15,700.00	8,887.24	13,862.16	7,557.16	68.07	62.77	50.14	-7,242.32	1,038.50	2,077.72	1,963.44	114.28	18.181	
15,800.00	8,887.23	13,961.96	7,557.16	68.69	63.46	50.03	-7,341.91	1,044.99	2,072.87	1,957.23	115.64	17.926	
15,900.00	8,887.23	14,061.76	7,557.16	69.31	64.16	49.92	-7,441.50	1,051.48	2,068.03	1,951.04	117.00	17.676	
16,000.00	8,887.22	14,161.56	7,557.15	69.94	64.86	49.80	-7,541.09	1,057.97	2,063.20	1,944.84	118.36	17.432	
16,100.00	8,887.22	14,261.36	7,557.15	70.56	65.56	49.69	-7,640.68	1,064.45	2,058.38	1,938.65	119.73	17.192	
16,200.00	8,887.21	14,361.16	7,557.14	71.19	66.27	49.58	-7,740.27	1,070.94	2,053.56	1,932.46	121.10	16.958	
16,300.00	8,887.21	14,460.96	7,557.14	71.83	66.97	49.46	-7,839.86	1,077.43	2,048.76	1,926.28	122.47	16.728	
16,400.00	8,887.20	14,560.76	7,557.14	72.46	67.68	49.35	-7,939.45	1,083.92	2,043.96	1,920.10	123.85	16.503	
16,500.00	8,887.20	14,660.56	7,557.13	73.10	68.38	49.23	-8,039.04	1,090.40	2,039.17	1,913.93	125.24	16.283	
16,600.00	8,887.19	14,760.36	7,557.13	73.74	69.09	49.12	-8,138.63	1,096.89	2,034.38	1,907.76	126.62	16.067	
16,700.00	8,887.19	14,860.16	7,557.13	74.38	69.80	49.00	-8,238.22	1,103.38	2,029.61	1,901.60	128.01	15.855	
16,800.00	8,887.18	14,959.96	7,557.12	75.02	70.52	48.88	-8,337.81	1,109.87	2,024.84	1,895.44	129.40	15.648	
16,900.00	8,887.18	15,059.76	7,557.12	75.67	71.23	48.76	-8,437.40	1,116.35	2,020.09	1,889.29	130.80	15.444	
17,000.00	8,887.17	15,159.56	7,557.12	76.32	71.94	48.65	-8,536.98	1,122.84	2,015.34	1,883.14	132.20	15.245	
17,100.00	8,887.17	15,259.36	7,557.11	76.97	72.66	48.53	-8,636.57	1,129.33	2,010.60	1,877.00	133.60	15.049	
17,200.00	8,887.16	15,359.16	7,557.11	77.62	73.37	48.41	-8,736.16	1,135.81	2,005.87	1,870.86	135.00	14.858	
17,300.00	8,887.16	15,458.96	7,557.10	78.28	74.09	48.29	-8,835.75	1,142.30	2,001.15	1,864.73	136.41	14.670	
17,400.00	8,887.15	15,558.76	7,557.10	78.93	74.81	48.17	-8,935.34	1,148.79	1,996.43	1,858.61	137.82	14.485	
17,500.00	8,887.14	15,658.57	7,557.10	79.59	75.53	48.05	-9,034.93	1,155.28	1,991.73	1,852.49	139.24	14.305	
17,600.00	8,887.14	15,758.37	7,557.09	80.25	76.25	47.93	-9,134.52	1,161.76	1,987.03	1,846.38	140.65	14.127	
17,700.00	8,887.13	15,858.17	7,557.09	80.91	76.97	47.80	-9,234.11	1,168.25	1,982.34	1,840.27	142.07	13.953	
17,800.00	8,887.13	15,957.97	7,557.09	81.58	77.69	47.68	-9,333.70	1,174.74	1,977.67	1,834.18	143.49	13.783	
17,900.00	8,887.12	16,057.77	7,557.08	82.24	78.42	47.56	-9,433.29	1,181.23	1,973.00	1,828.08	144.91	13.615	
18,000.00	8,887.12	16,157.57	7,557.08	82.91	79.14	47.43	-9,532.88	1,187.71	1,968.34	1,822.00	146.34	13.451	
18,100.00	8,887.11	16,257.37	7,557.08	83.58	79.87	47.31	-9,632.47	1,194.20	1,963.69	1,815.92	147.77	13.289	
18,200.00	8,887.11	16,357.17	7,557.07	84.25	80.59	47.18	-9,732.06	1,200.69	1,959.05	1,809.85	149.20	13.131	
18,300.00	8,887.10	16,456.97	7,557.07	84.92	81.32	47.06	-9,831.65	1,207.18	1,954.42	1,803.79	150.63	12.975	
18,400.00	8,887.10	16,556.77	7,557.06	85.60	82.05	46.93	-9,931.24	1,213.66	1,949.79	1,797.73	152.06	12.822	
18,500.00	8,887.09	16,656.57	7,557.06	86.27	82.77	46.81	-10,030.83	1,220.15	1,945.18	1,791.68	153.50	12.672	
18,600.00	8,887.09	16,756.37	7,557.06	86.95	83.50	46.68	-10,130.42	1,226.64	1,940.58	1,785.64	154.94	12.525	
18,700.00	8,887.08	16,856.17	7,557.05	87.63	84.23	46.55	-10,230.01	1,233.13	1,935.98	1,779.61	156.38	12.380	
18,800.00	8,887.08	16,955.97	7,557.05	88.31	84.96	46.42	-10,329.59	1,239.61	1,931.40	1,773.58	157.82	12.238	
18,900.00	8,887.07	17,055.77	7,557.05	88.99	85.70	46.29	-10,429.18	1,246.10	1,926.83	1,767.56	159.27	12.098	
19,000.00	8,887.07	17,155.57	7,557.04	89.67	86.43	46.16	-10,528.77	1,252.59	1,922.26	1,761.55	160.71	11.961	
19,100.00	8,887.06	17,255.37	7,557.04	90.36	87.16	46.03	-10,628.36	1,259.08	1,917.71	1,755.55	162.16	11.826	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - 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
19,200.00	8,887.06	17,355.17	7,557.04	91.04	87.89	45.90	-10,727.95	1,265.56	1,913.16	1,749.55	163.61	11.694	
19,300.00	8,887.05	17,454.97	7,557.03	91.73	88.63	45.77	-10,827.54	1,272.05	1,908.63	1,743.57	165.06	11.563	
19,400.00	8,887.05	17,554.78	7,557.03	92.42	89.36	45.64	-10,927.13	1,278.54	1,904.11	1,737.59	166.51	11.435	
19,500.00	8,887.04	17,654.58	7,557.02	93.11	90.10	45.50	-11,026.72	1,285.02	1,899.59	1,731.62	167.97	11.309	
19,600.00	8,887.04	17,754.38	7,557.02	93.80	90.83	45.37	-11,126.31	1,291.51	1,895.09	1,725.66	169.43	11.185	
19,700.00	8,887.03	17,854.18	7,557.02	94.49	91.57	45.24	-11,225.90	1,298.00	1,890.59	1,719.71	170.88	11.064	
19,800.00	8,887.02	17,953.98	7,557.01	95.18	92.31	45.10	-11,325.49	1,304.49	1,886.11	1,713.77	172.34	10.944	
19,900.00	8,887.02	18,053.78	7,557.01	95.87	93.05	44.96	-11,425.08	1,310.97	1,881.64	1,707.84	173.80	10.826	
20,000.00	8,887.01	18,153.58	7,557.01	96.57	93.78	44.83	-11,524.67	1,317.46	1,877.18	1,701.91	175.27	10.710	
20,100.00	8,887.01	18,253.38	7,557.00	97.26	94.52	44.69	-11,624.26	1,323.95	1,872.73	1,696.00	176.73	10.596	
20,200.00	8,887.00	18,318.93	7,557.00	97.96	95.01	44.60	-11,689.67	1,328.21	1,868.60	1,691.08	177.52	10.526	
20,248.68	8,887.00	18,318.93	7,557.00	98.30	95.01	44.60	-11,689.67	1,328.21	1,867.97	1,690.79	177.18	10.543	
20,266.44	8,887.00	18,318.93	7,557.00	98.42	95.01	44.60	-11,689.67	1,328.21	1,868.05	1,691.02	177.03	10.552	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	1.14	-59.98	59.99				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	1.14	-59.98	59.99	59.44	0.55	108.670	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	1.14	-59.98	59.99	58.72	1.27	47.274	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	1.14	-59.98	59.99	58.00	1.99	30.208	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	1.14	-59.98	59.99	57.29	2.70	22.195	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	1.14	-59.98	59.99	56.57	3.42	17.542	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	1.14	-59.98	59.99	55.85	4.14	14.502	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	1.14	-59.98	59.99	55.14	4.85	12.360	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	1.14	-59.98	59.99	54.42	5.57	10.769	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	1.14	-59.98	59.99	53.70	6.29	9.541	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	1.14	-59.98	59.99	52.99	7.00	8.565	
1,100.00	1,100.00	1,100.72	1,100.70	3.86	3.85	-90.51	-0.52	-59.37	59.38	51.68	7.71	7.706	
1,200.00	1,200.00	1,201.19	1,201.02	4.22	4.18	-95.45	-5.50	-57.56	57.84	49.44	8.39	6.891	
1,260.40	1,260.40	1,261.69	1,261.33	4.43	4.38	140.19	-10.08	-55.89	57.29	48.49	8.80	6.509	CC
1,300.00	1,299.98	1,301.28	1,300.73	4.56	4.51	137.08	-13.73	-54.57	57.54	48.47	9.07	6.344	ES
1,400.00	1,399.84	1,401.93	1,400.64	4.90	4.86	129.02	-24.97	-50.05	60.07	50.33	9.74	6.165	
1,500.00	1,499.45	1,503.38	1,501.03	5.24	5.20	122.18	-37.31	-42.27	63.18	52.75	10.43	6.058	
1,600.00	1,598.70	1,604.84	1,601.01	5.58	5.55	116.59	-50.35	-31.00	66.12	55.00	11.12	5.944	
1,700.00	1,697.47	1,705.74	1,699.93	5.93	5.91	112.13	-63.96	-16.54	68.76	56.93	11.83	5.814	
1,800.00	1,795.62	1,805.64	1,797.75	6.28	6.26	110.20	-77.58	-1.49	72.46	59.92	12.54	5.780	
1,810.29	1,805.68	1,815.91	1,807.81	6.32	6.30	110.03	-78.98	0.06	72.91	60.30	12.61	5.782	
1,900.00	1,893.37	1,905.54	1,895.57	6.63	6.63	109.86	-91.20	13.55	76.86	63.61	13.25	5.800	
2,000.00	1,991.11	2,005.44	1,993.39	6.99	6.99	109.70	-104.82	28.59	81.28	67.30	13.97	5.816	
2,100.00	2,088.85	2,105.35	2,091.21	7.35	7.36	109.55	-118.43	43.64	85.69	70.99	14.70	5.829	
2,200.00	2,186.59	2,205.25	2,189.03	7.72	7.72	109.42	-132.05	58.68	90.10	74.67	15.43	5.838	
2,300.00	2,284.33	2,305.15	2,286.85	8.08	8.09	109.30	-145.67	73.72	94.52	78.35	16.17	5.845	
2,400.00	2,382.07	2,405.05	2,384.67	8.45	8.47	109.19	-159.29	88.77	98.93	82.02	16.91	5.850	
2,500.00	2,479.81	2,504.95	2,482.49	8.82	8.84	109.09	-172.90	103.81	103.35	85.69	17.66	5.854	
2,600.00	2,577.55	2,604.86	2,580.31	9.19	9.21	109.00	-186.52	118.85	107.76	89.36	18.40	5.856	
2,700.00	2,675.29	2,704.76	2,678.13	9.57	9.59	108.92	-200.14	133.90	112.18	93.03	19.15	5.857	
2,800.00	2,773.03	2,804.66	2,775.95	9.94	9.96	108.84	-213.76	148.94	116.59	96.69	19.90	5.858	
2,900.00	2,870.77	2,904.56	2,873.77	10.32	10.34	108.76	-227.37	163.98	121.01	100.35	20.66	5.858	
3,000.00	2,968.51	3,004.47	2,971.59	10.70	10.72	108.70	-240.99	179.03	125.42	104.01	21.41	5.858	
3,100.00	3,066.25	3,104.37	3,069.41	11.07	11.10	108.63	-254.61	194.07	129.84	107.67	22.17	5.857	
3,200.00	3,163.99	3,204.27	3,167.23	11.45	11.48	108.58	-268.23	209.11	134.26	111.33	22.93	5.856	
3,300.00	3,261.73	3,304.17	3,265.05	11.83	11.86	108.52	-281.84	224.16	138.67	114.99	23.68	5.855	
3,400.00	3,359.47	3,404.08	3,362.87	12.21	12.24	108.47	-295.46	239.20	143.09	118.65	24.45	5.854	
3,500.00	3,457.21	3,503.98	3,460.69	12.59	12.62	108.42	-309.08	254.24	147.51	122.30	25.21	5.852	
3,600.00	3,554.95	3,603.88	3,558.51	12.97	13.00	108.38	-322.70	269.29	151.92	125.95	25.97	5.850	
3,700.00	3,652.69	3,703.78	3,656.33	13.35	13.38	108.33	-336.31	284.33	156.34	129.61	26.73	5.848	
3,800.00	3,750.43	3,803.68	3,754.15	13.73	13.76	108.29	-349.93	299.37	160.76	133.26	27.50	5.846	
3,900.00	3,848.17	3,903.59	3,851.97	14.12	14.14	108.25	-363.55	314.42	165.17	136.91	28.26	5.845	
4,000.00	3,945.91	4,003.49	3,949.79	14.50	14.53	108.22	-377.17	329.46	169.59	140.57	29.03	5.843	
4,100.00	4,043.65	4,103.39	4,047.61	14.88	14.91	108.18	-390.78	344.50	174.01	144.22	29.79	5.841	
4,200.00	4,141.39	4,203.29	4,145.43	15.27	15.29	108.15	-404.40	359.55	178.43	147.87	30.56	5.839	
4,300.00	4,239.13	4,303.20	4,243.25	15.65	15.67	108.12	-418.02	374.59	182.84	151.52	31.33	5.837	
4,400.00	4,336.87	4,403.10	4,341.07	16.03	16.06	108.09	-431.64	389.63	187.26	155.17	32.10	5.835	
4,500.00	4,434.61	4,503.00	4,438.89	16.42	16.44	108.06	-445.25	404.68	191.68	158.82	32.86	5.833	
4,600.00	4,532.35	4,602.90	4,536.71	16.80	16.82	108.03	-458.87	419.72	196.10	162.46	33.63	5.831	
4,700.00	4,630.09	4,702.81	4,634.53	17.19	17.21	108.01	-472.49	434.76	200.51	166.11	34.40	5.829	
4,800.00	4,727.83	4,802.71	4,732.35	17.57	17.59	107.98	-486.11	449.81	204.93	169.76	35.17	5.827	
4,900.00	4,825.57	4,902.61	4,830.17	17.96	17.98	107.96	-499.72	464.85	209.35	173.41	35.94	5.825	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - 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
5,000.00	4,923.31	5,002.51	4,927.99	18.34	18.36	107.94	-513.34	479.89	213.77	177.06	36.71	5.823	
5,100.00	5,021.05	5,102.42	5,025.81	18.73	18.75	107.91	-526.96	494.94	218.18	180.70	37.48	5.821	
5,200.00	5,118.79	5,202.32	5,123.63	19.11	19.13	107.89	-540.58	509.98	222.60	184.35	38.25	5.819	
5,300.00	5,216.53	5,302.22	5,221.45	19.50	19.51	107.87	-554.19	525.02	227.02	188.00	39.02	5.818	
5,400.00	5,314.27	5,402.12	5,319.27	19.89	19.90	107.85	-567.81	540.07	231.44	191.64	39.79	5.816	
5,500.00	5,412.01	5,502.02	5,417.09	20.27	20.28	107.83	-581.43	555.11	235.85	195.29	40.57	5.814	
5,600.00	5,509.75	5,601.93	5,514.91	20.66	20.67	107.82	-595.05	570.15	240.27	198.93	41.34	5.812	
5,700.00	5,607.50	5,701.83	5,612.73	21.05	21.06	107.80	-608.66	585.20	244.69	202.58	42.11	5.811	
5,800.00	5,705.24	5,801.73	5,710.55	21.43	21.44	107.78	-622.28	600.24	249.11	206.23	42.88	5.809	
5,900.00	5,802.98	5,901.63	5,808.37	21.82	21.83	107.77	-635.90	615.28	253.53	209.87	43.65	5.808	
6,000.00	5,900.72	6,001.54	5,906.19	22.21	22.21	107.75	-649.52	630.32	257.94	213.52	44.43	5.806	
6,100.00	5,998.46	6,101.44	6,004.01	22.59	22.60	107.74	-663.13	645.37	262.36	217.16	45.20	5.804	
6,200.00	6,096.20	6,201.34	6,101.83	22.98	22.98	107.72	-676.75	660.41	266.78	220.81	45.97	5.803	
6,300.00	6,193.94	6,301.24	6,199.65	23.37	23.37	107.71	-690.37	675.45	271.20	224.45	46.75	5.801	
6,400.00	6,291.68	6,401.15	6,297.47	23.75	23.75	107.69	-703.99	690.50	275.62	228.10	47.52	5.800	
6,500.00	6,389.42	6,501.05	6,395.29	24.14	24.14	107.68	-717.60	705.54	280.03	231.74	48.29	5.799	
6,600.00	6,487.16	6,600.95	6,493.10	24.53	24.53	107.67	-731.22	720.58	284.45	235.38	49.07	5.797	
6,700.00	6,584.90	6,700.85	6,590.92	24.92	24.91	107.65	-744.84	735.63	288.87	239.03	49.84	5.796	
6,800.00	6,682.64	6,800.76	6,688.74	25.30	25.30	107.64	-758.46	750.67	293.29	242.67	50.61	5.795	
6,900.00	6,780.38	6,900.66	6,786.56	25.69	25.68	107.63	-772.07	765.71	297.71	246.32	51.39	5.793	
7,000.00	6,878.12	7,000.56	6,884.38	26.08	26.07	107.62	-785.69	780.76	302.12	249.96	52.16	5.792	
7,100.00	6,975.86	7,100.46	6,982.20	26.47	26.46	107.61	-799.31	795.80	306.54	253.61	52.94	5.791	
7,200.00	7,073.60	7,200.36	7,080.02	26.86	26.84	107.60	-812.93	810.84	310.96	257.25	53.71	5.790	
7,300.00	7,171.34	7,300.27	7,177.84	27.24	27.23	107.59	-826.54	825.89	315.38	260.89	54.48	5.788	
7,323.61	7,194.42	7,323.85	7,200.94	27.34	27.32	107.59	-829.76	829.44	316.42	261.75	54.67	5.788	
7,400.00	7,269.29	7,400.17	7,275.67	27.63	27.62	107.46	-840.16	840.93	319.49	264.23	55.26	5.782	
7,500.00	7,367.86	7,500.03	7,373.44	28.01	28.00	106.77	-853.77	855.97	322.61	266.60	56.01	5.759	
7,600.00	7,466.96	7,599.72	7,471.05	28.38	28.39	105.48	-867.36	870.98	324.85	268.09	56.76	5.723	
7,700.00	7,566.46	7,699.11	7,568.38	28.74	28.77	103.62	-880.91	885.95	326.41	268.92	57.49	5.678	
7,800.00	7,666.25	7,798.15	7,665.39	29.09	29.15	101.22	-894.28	900.71	327.64	269.44	58.21	5.629	
7,900.00	7,766.20	7,897.48	7,763.19	29.43	29.53	98.72	-905.91	913.56	328.78	269.87	58.91	5.581	
7,933.80	7,800.00	7,931.17	7,796.49	29.55	29.66	-141.99	-909.33	917.34	329.14	270.01	59.13	5.566	
8,000.00	7,866.20	7,997.44	7,862.16	29.76	29.90	-143.54	-915.30	923.94	329.91	270.33	59.58	5.537	
8,100.00	7,966.20	8,098.23	7,962.38	30.07	30.27	-145.36	-922.43	931.81	331.13	270.88	60.25	5.496	
8,200.00	8,066.20	8,199.65	8,063.55	30.39	30.63	-146.58	-927.21	937.09	332.13	271.20	60.92	5.452	
8,300.00	8,166.20	8,301.45	8,165.28	30.71	30.98	-147.18	-929.58	939.71	332.67	271.08	61.59	5.401	
8,400.00	8,266.20	8,392.12	8,255.91	31.04	31.28	-147.49	-931.15	940.85	333.54	271.34	62.20	5.363	SF
8,428.80	8,295.00	8,415.10	8,278.79	31.13	31.36	-147.83	-932.96	942.00	334.68	272.34	62.34	5.368	
8,450.00	8,316.20	8,431.92	8,295.48	31.20	31.43	70.79	-934.77	943.16	335.72	273.27	62.45	5.376	
8,500.00	8,366.02	8,471.46	8,334.38	31.38	31.58	69.99	-940.63	946.91	338.25	275.58	62.67	5.397	
8,550.00	8,415.30	8,510.81	8,372.54	31.56	31.73	69.33	-948.71	952.07	340.86	278.01	62.85	5.423	
8,600.00	8,463.67	8,550.00	8,409.80	31.75	31.89	68.81	-958.92	958.61	343.50	280.50	63.00	5.452	
8,650.00	8,510.75	8,589.11	8,446.07	31.95	32.05	68.44	-971.23	966.48	346.14	283.02	63.12	5.484	
8,700.00	8,556.19	8,628.12	8,481.18	32.16	32.21	68.20	-985.55	975.64	348.74	285.54	63.21	5.518	
8,750.00	8,599.64	8,667.09	8,515.00	32.37	32.38	68.09	-1,001.84	986.05	351.30	288.03	63.27	5.552	
8,800.00	8,640.77	8,706.05	8,547.43	32.58	32.55	68.12	-1,020.01	997.68	353.79	290.46	63.33	5.586	
8,850.00	8,679.28	8,750.00	8,582.16	32.80	32.75	68.34	-1,042.70	1,012.18	356.27	292.68	63.59	5.603	
8,900.00	8,714.85	8,784.07	8,607.60	33.02	32.90	68.58	-1,061.78	1,024.39	358.58	295.10	63.49	5.648	
8,950.00	8,747.24	8,823.21	8,635.11	33.24	33.07	68.99	-1,085.24	1,039.39	360.89	297.28	63.61	5.673	
9,000.00	8,776.18	8,862.49	8,660.73	33.45	33.25	69.52	-1,110.31	1,055.42	363.16	299.36	63.79	5.693	
9,050.00	8,801.45	8,900.00	8,683.24	33.67	33.42	70.13	-1,135.57	1,071.58	365.40	301.44	63.96	5.713	
9,100.00	8,822.88	8,941.63	8,705.87	33.88	33.60	70.93	-1,165.00	1,090.40	367.64	303.28	64.36	5.713	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,150.00	8,840.29	8,981.57	8,725.14	34.09	33.78	71.78	-1,194.46	1,109.24	369.91	305.16	64.75	5.713	
9,178.80	8,848.43	9,004.71	8,735.18	34.21	33.88	72.32	-1,212.03	1,120.48	371.24	306.22	65.02	5.710	
9,200.00	8,853.73	9,021.85	8,742.06	34.30	33.96	72.76	-1,225.25	1,128.93	372.30	307.07	65.22	5.708	
9,300.00	8,873.56	9,100.17	8,767.43	34.70	34.29	74.29	-1,287.62	1,168.82	378.89	312.81	66.08	5.734	
9,400.00	8,884.77	9,177.20	8,786.42	35.10	34.61	75.72	-1,351.76	1,206.99	389.06	322.05	67.01	5.806	
9,478.80	8,887.48	9,233.79	8,799.11	35.42	34.85	77.07	-1,400.63	1,232.53	400.60	332.76	67.84	5.905	
9,500.00	8,887.48	9,248.80	8,802.29	35.50	34.92	77.62	-1,413.82	1,238.94	404.32	336.24	68.07	5.939	
9,600.00	8,887.48	9,318.77	8,816.11	35.91	35.21	80.03	-1,476.51	1,266.76	426.16	357.08	69.08	6.169	
9,700.00	8,887.48	9,400.00	8,829.97	36.33	35.54	82.41	-1,551.50	1,294.69	454.94	384.77	70.17	6.484	
9,800.00	8,887.48	9,453.32	8,837.76	36.78	35.76	83.71	-1,601.85	1,310.40	489.25	418.62	70.63	6.926	
9,900.00	8,887.48	9,517.15	8,845.70	37.25	36.01	85.00	-1,663.11	1,326.44	529.26	458.05	71.21	7.432	
10,000.00	8,887.48	9,578.34	8,851.88	37.74	36.25	85.97	-1,722.69	1,338.93	574.18	502.49	71.68	8.010	
10,100.00	8,887.48	9,636.72	8,856.43	38.24	36.47	86.67	-1,780.14	1,348.17	623.52	551.46	72.07	8.652	
10,133.80	8,887.48	9,655.80	8,857.64	38.41	36.54	86.86	-1,799.02	1,350.62	641.13	568.95	72.18	8.883	
10,200.00	8,887.48	9,700.00	8,859.89	38.76	36.70	87.25	-1,842.92	1,355.22	676.30	603.81	72.49	9.329	
10,300.00	8,887.48	9,746.48	8,861.44	39.29	36.86	87.57	-1,889.27	1,358.41	729.91	657.31	72.60	10.053	
10,400.00	8,887.48	9,809.00	8,862.20	39.83	37.08	87.81	-1,951.75	1,360.06	784.34	711.40	72.94	10.754	
10,500.00	8,887.48	9,876.88	8,862.20	40.37	37.31	87.97	-2,019.63	1,360.18	837.97	764.64	73.33	11.427	
10,600.00	8,887.48	9,962.98	8,862.19	40.92	37.61	88.13	-2,105.73	1,360.34	888.80	814.79	74.01	12.009	
10,700.00	8,887.48	10,050.80	8,862.19	41.47	37.93	88.25	-2,193.55	1,360.51	936.60	861.88	74.72	12.535	
10,800.00	8,887.47	10,140.24	8,862.19	42.02	38.25	88.36	-2,282.99	1,360.67	981.31	905.86	75.46	13.005	
10,900.00	8,887.47	10,231.18	8,862.19	42.56	38.60	88.45	-2,373.93	1,360.84	1,022.88	946.66	76.22	13.421	
11,000.00	8,887.47	10,323.51	8,862.19	43.11	38.95	88.53	-2,466.26	1,361.01	1,061.24	984.24	77.00	13.782	
11,100.00	8,887.47	10,417.13	8,862.19	43.65	39.32	88.60	-2,559.88	1,361.19	1,096.37	1,018.56	77.81	14.090	
11,200.00	8,887.46	10,511.92	8,862.18	44.18	39.71	88.65	-2,654.67	1,361.37	1,128.20	1,049.56	78.64	14.346	
11,300.00	8,887.46	10,607.77	8,862.18	44.71	40.10	88.70	-2,750.52	1,361.54	1,156.71	1,077.22	79.49	14.551	
11,400.00	8,887.46	10,704.54	8,862.18	45.22	40.51	88.74	-2,847.29	1,361.72	1,181.86	1,101.49	80.36	14.706	
11,500.00	8,887.45	10,802.14	8,862.18	45.73	40.94	88.77	-2,944.89	1,361.91	1,203.61	1,122.36	81.25	14.813	
11,600.00	8,887.45	10,900.44	8,862.18	46.23	41.37	88.80	-3,043.19	1,362.09	1,221.95	1,139.80	82.15	14.874	
11,700.00	8,887.45	10,999.32	8,862.17	46.72	41.82	88.82	-3,142.07	1,362.27	1,236.85	1,153.78	83.07	14.889	
11,800.00	8,887.44	11,098.66	8,862.17	47.20	42.27	88.83	-3,241.41	1,362.46	1,248.29	1,164.29	84.00	14.861	
11,900.00	8,887.44	11,198.34	8,862.17	47.67	42.74	88.85	-3,341.08	1,362.64	1,256.25	1,171.31	84.94	14.790	
12,000.00	8,887.43	11,298.23	8,862.17	48.13	43.22	88.85	-3,440.98	1,362.83	1,260.73	1,174.85	85.89	14.679	
12,078.43	8,887.43	11,376.65	8,862.17	48.48	43.59	88.85	-3,519.40	1,362.98	1,261.81	1,175.17	86.63	14.565	
12,100.00	8,887.43	11,398.22	8,862.17	48.57	43.70	88.85	-3,540.97	1,363.02	1,261.81	1,174.97	86.84	14.531	
12,200.00	8,887.42	11,498.22	8,862.16	49.01	44.19	88.85	-3,640.97	1,363.20	1,261.81	1,174.00	87.80	14.371	
12,300.00	8,887.42	11,598.22	8,862.16	49.47	44.69	88.85	-3,740.97	1,363.39	1,261.81	1,173.02	88.79	14.212	
12,400.00	8,887.41	11,698.22	8,862.16	49.92	45.19	88.85	-3,840.97	1,363.58	1,261.81	1,172.03	89.78	14.054	
12,500.00	8,887.41	11,798.22	8,862.16	50.39	45.71	88.85	-3,940.97	1,363.76	1,261.81	1,171.01	90.80	13.897	
12,600.00	8,887.40	11,898.22	8,862.16	50.86	46.23	88.85	-4,040.97	1,363.95	1,261.81	1,169.99	91.82	13.742	
12,700.00	8,887.40	11,998.22	8,862.15	51.34	46.75	88.85	-4,140.97	1,364.13	1,261.81	1,168.95	92.86	13.588	
12,800.00	8,887.39	12,098.22	8,862.15	51.82	47.28	88.85	-4,240.97	1,364.32	1,261.81	1,167.90	93.92	13.435	
12,900.00	8,887.39	12,198.22	8,862.15	52.31	47.82	88.85	-4,340.97	1,364.51	1,261.81	1,166.83	94.98	13.285	
13,000.00	8,887.38	12,298.22	8,862.15	52.81	48.37	88.85	-4,440.97	1,364.69	1,261.82	1,165.75	96.06	13.135	
13,100.00	8,887.37	12,398.22	8,862.15	53.31	48.92	88.85	-4,540.97	1,364.88	1,261.82	1,164.66	97.15	12.988	
13,200.00	8,887.37	12,498.22	8,862.14	53.82	49.47	88.85	-4,640.97	1,365.07	1,261.82	1,163.56	98.26	12.842	
13,300.00	8,887.36	12,598.22	8,862.14	54.34	50.03	88.85	-4,740.97	1,365.25	1,261.82	1,162.45	99.37	12.698	
13,400.00	8,887.36	12,698.22	8,862.14	54.86	50.60	88.85	-4,840.97	1,365.44	1,261.82	1,161.32	100.50	12.556	
13,500.00	8,887.35	12,798.22	8,862.14	55.38	51.17	88.85	-4,940.97	1,365.63	1,261.82	1,160.19	101.63	12.415	
13,600.00	8,887.35	12,898.22	8,862.14	55.91	51.75	88.86	-5,040.97	1,365.81	1,261.82	1,159.04	102.78	12.277	
13,700.00	8,887.34	12,998.22	8,862.13	56.45	52.33	88.86	-5,140.97	1,366.00	1,261.82	1,157.89	103.94	12.140	
13,800.00	8,887.34	13,098.22	8,862.13	56.99	52.91	88.86	-5,240.97	1,366.18	1,261.82	1,156.72	105.10	12.006	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - 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
13,900.00	8,887.33	13,198.22	8,862.13	57.54	53.50	88.86	-5,340.97	1,366.37	1,261.83	1,155.55	106.28	11.873	
14,000.00	8,887.33	13,298.22	8,862.13	58.09	54.09	88.86	-5,440.97	1,366.56	1,261.83	1,154.37	107.46	11.742	
14,100.00	8,887.32	13,398.22	8,862.12	58.64	54.69	88.86	-5,540.97	1,366.74	1,261.83	1,153.18	108.65	11.614	
14,200.00	8,887.32	13,498.22	8,862.12	59.20	55.29	88.86	-5,640.97	1,366.93	1,261.83	1,151.98	109.85	11.487	
14,300.00	8,887.31	13,598.22	8,862.12	59.77	55.90	88.86	-5,740.97	1,367.12	1,261.83	1,150.77	111.06	11.362	
14,400.00	8,887.31	13,698.22	8,862.12	60.34	56.51	88.86	-5,840.96	1,367.30	1,261.83	1,149.55	112.28	11.239	
14,500.00	8,887.30	13,798.22	8,862.12	60.91	57.12	88.86	-5,940.96	1,367.49	1,261.83	1,148.33	113.50	11.117	
14,600.00	8,887.30	13,898.22	8,862.11	61.49	57.74	88.86	-6,040.96	1,367.67	1,261.83	1,147.10	114.73	10.998	
14,700.00	8,887.29	13,998.22	8,862.11	62.07	58.36	88.86	-6,140.96	1,367.86	1,261.84	1,145.86	115.97	10.881	
14,800.00	8,887.29	14,098.22	8,862.11	62.65	58.98	88.86	-6,240.96	1,368.05	1,261.84	1,144.62	117.22	10.765	
14,900.00	8,887.28	14,198.22	8,862.11	63.24	59.61	88.86	-6,340.96	1,368.23	1,261.84	1,143.37	118.47	10.651	
15,000.00	8,887.28	14,298.22	8,862.11	63.83	60.24	88.86	-6,440.96	1,368.42	1,261.84	1,142.11	119.73	10.539	
15,100.00	8,887.27	14,398.22	8,862.10	64.43	60.87	88.86	-6,540.96	1,368.61	1,261.84	1,140.85	120.99	10.429	
15,200.00	8,887.27	14,498.22	8,862.10	65.03	61.51	88.86	-6,640.96	1,368.79	1,261.84	1,139.58	122.26	10.321	
15,300.00	8,887.26	14,598.22	8,862.10	65.63	62.15	88.86	-6,740.96	1,368.98	1,261.84	1,138.30	123.54	10.214	
15,400.00	8,887.25	14,698.22	8,862.10	66.24	62.79	88.86	-6,840.96	1,369.17	1,261.84	1,137.02	124.82	10.109	
15,500.00	8,887.25	14,798.22	8,862.10	66.85	63.43	88.86	-6,940.96	1,369.35	1,261.84	1,135.73	126.11	10.006	
15,600.00	8,887.24	14,898.22	8,862.09	67.46	64.08	88.86	-7,040.96	1,369.54	1,261.85	1,134.44	127.40	9.904	
15,700.00	8,887.24	14,998.22	8,862.09	68.07	64.73	88.86	-7,140.96	1,369.72	1,261.85	1,133.14	128.70	9.804	
15,800.00	8,887.23	15,098.22	8,862.09	68.69	65.38	88.86	-7,240.96	1,369.91	1,261.85	1,131.84	130.01	9.706	
15,900.00	8,887.23	15,198.22	8,862.09	69.31	66.03	88.86	-7,340.96	1,370.10	1,261.85	1,130.54	131.31	9.609	
16,000.00	8,887.22	15,298.22	8,862.09	69.94	66.69	88.86	-7,440.96	1,370.28	1,261.85	1,129.22	132.63	9.514	
16,100.00	8,887.22	15,398.22	8,862.08	70.56	67.35	88.86	-7,540.96	1,370.47	1,261.85	1,127.91	133.94	9.421	
16,200.00	8,887.21	15,498.22	8,862.08	71.19	68.01	88.86	-7,640.96	1,370.66	1,261.85	1,126.59	135.27	9.329	
16,300.00	8,887.21	15,598.22	8,862.08	71.83	68.67	88.86	-7,740.96	1,370.84	1,261.85	1,125.26	136.59	9.238	
16,400.00	8,887.20	15,698.22	8,862.08	72.46	69.34	88.86	-7,840.96	1,371.03	1,261.85	1,123.93	137.92	9.149	
16,500.00	8,887.20	15,798.22	8,862.08	73.10	70.01	88.86	-7,940.96	1,371.21	1,261.86	1,122.60	139.26	9.061	
16,600.00	8,887.19	15,898.22	8,862.07	73.74	70.67	88.86	-8,040.96	1,371.40	1,261.86	1,121.26	140.60	8.975	
16,700.00	8,887.19	15,998.22	8,862.07	74.38	71.35	88.86	-8,140.96	1,371.59	1,261.86	1,119.92	141.94	8.890	
16,800.00	8,887.18	16,098.22	8,862.07	75.02	72.02	88.86	-8,240.96	1,371.77	1,261.86	1,118.57	143.29	8.807	
16,900.00	8,887.18	16,198.22	8,862.07	75.67	72.69	88.86	-8,340.96	1,371.96	1,261.86	1,117.22	144.64	8.724	
17,000.00	8,887.17	16,298.22	8,862.07	76.32	73.37	88.86	-8,440.96	1,372.15	1,261.86	1,115.87	145.99	8.644	
17,100.00	8,887.17	16,398.22	8,862.06	76.97	74.05	88.86	-8,540.96	1,372.33	1,261.86	1,114.52	147.35	8.564	
17,200.00	8,887.16	16,498.22	8,862.06	77.62	74.73	88.86	-8,640.96	1,372.52	1,261.86	1,113.16	148.71	8.486	
17,300.00	8,887.16	16,598.22	8,862.06	78.28	75.41	88.86	-8,740.96	1,372.71	1,261.86	1,111.79	150.07	8.409	
17,400.00	8,887.15	16,698.22	8,862.06	78.93	76.09	88.86	-8,840.96	1,372.89	1,261.87	1,110.43	151.44	8.333	
17,500.00	8,887.14	16,798.22	8,862.06	79.59	76.78	88.86	-8,940.96	1,373.08	1,261.87	1,109.06	152.81	8.258	
17,600.00	8,887.14	16,898.22	8,862.05	80.25	77.46	88.86	-9,040.96	1,373.26	1,261.87	1,107.69	154.18	8.184	
17,700.00	8,887.13	16,998.22	8,862.05	80.91	78.15	88.86	-9,140.96	1,373.45	1,261.87	1,106.31	155.56	8.112	
17,800.00	8,887.13	17,098.22	8,862.05	81.58	78.84	88.86	-9,240.96	1,373.64	1,261.87	1,104.94	156.93	8.041	
17,900.00	8,887.12	17,198.22	8,862.05	82.24	79.53	88.86	-9,340.96	1,373.82	1,261.87	1,103.56	158.32	7.971	
18,000.00	8,887.12	17,298.22	8,862.05	82.91	80.22	88.86	-9,440.96	1,374.01	1,261.87	1,102.17	159.70	7.902	
18,100.00	8,887.11	17,398.22	8,862.04	83.58	80.91	88.86	-9,540.96	1,374.20	1,261.87	1,100.79	161.09	7.834	
18,200.00	8,887.11	17,498.22	8,862.04	84.25	81.61	88.86	-9,640.96	1,374.38	1,261.87	1,099.40	162.48	7.767	
18,300.00	8,887.10	17,598.22	8,862.04	84.92	82.30	88.86	-9,740.96	1,374.57	1,261.88	1,098.01	163.87	7.701	
18,400.00	8,887.10	17,698.22	8,862.04	85.60	83.00	88.86	-9,840.96	1,374.75	1,261.88	1,096.62	165.26	7.636	
18,500.00	8,887.09	17,798.22	8,862.04	86.27	83.69	88.86	-9,940.96	1,374.94	1,261.88	1,095.22	166.66	7.572	
18,600.00	8,887.09	17,898.22	8,862.03	86.95	84.39	88.86	-10,040.96	1,375.13	1,261.88	1,093.82	168.06	7.509	
18,700.00	8,887.08	17,998.22	8,862.03	87.63	85.09	88.86	-10,140.96	1,375.31	1,261.88	1,092.42	169.46	7.447	
18,800.00	8,887.08	18,098.22	8,862.03	88.31	85.79	88.86	-10,240.96	1,375.50	1,261.88	1,091.02	170.86	7.385	
18,900.00	8,887.07	18,198.22	8,862.03	88.99	86.50	88.86	-10,340.96	1,375.69	1,261.88	1,089.62	172.27	7.325	
19,000.00	8,887.07	18,298.22	8,862.03	89.67	87.20	88.86	-10,440.96	1,375.87	1,261.88	1,088.21	173.67	7.266	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - 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
19,100.00	8,887.06	18,398.22	8,862.02	90.36	87.90	88.86	-10,540.96	1,376.06	1,261.88	1,086.80	175.08	7.207	
19,200.00	8,887.06	18,498.22	8,862.02	91.04	88.61	88.86	-10,640.96	1,376.25	1,261.89	1,085.39	176.50	7.150	
19,300.00	8,887.05	18,598.22	8,862.02	91.73	89.31	88.86	-10,740.96	1,376.43	1,261.89	1,083.98	177.91	7.093	
19,400.00	8,887.05	18,698.22	8,862.02	92.42	90.02	88.86	-10,840.96	1,376.62	1,261.89	1,082.56	179.32	7.037	
19,500.00	8,887.04	18,798.22	8,862.02	93.11	90.73	88.86	-10,940.96	1,376.80	1,261.89	1,081.15	180.74	6.982	
19,600.00	8,887.04	18,898.22	8,862.01	93.80	91.44	88.86	-11,040.96	1,376.99	1,261.89	1,079.73	182.16	6.927	
19,700.00	8,887.03	18,998.22	8,862.01	94.49	92.15	88.86	-11,140.96	1,377.18	1,261.89	1,078.31	183.58	6.874	
19,800.00	8,887.02	19,098.22	8,862.01	95.18	92.86	88.86	-11,240.96	1,377.36	1,261.89	1,076.89	185.00	6.821	
19,900.00	8,887.02	19,198.22	8,862.01	95.87	93.57	88.86	-11,340.96	1,377.55	1,261.89	1,075.46	186.43	6.769	
20,000.00	8,887.01	19,298.22	8,862.01	96.57	94.28	88.86	-11,440.96	1,377.74	1,261.89	1,074.04	187.86	6.717	
20,100.00	8,887.01	19,398.22	8,862.00	97.26	95.00	88.86	-11,540.96	1,377.92	1,261.90	1,072.61	189.28	6.667	
20,200.00	8,887.00	19,498.22	8,862.00	97.96	95.71	88.86	-11,640.95	1,378.11	1,261.90	1,071.18	190.71	6.617	
20,200.12	8,887.00	19,498.34	8,862.00	97.96	95.71	88.86	-11,641.07	1,378.11	1,261.90	1,071.18	190.71	6.617	
20,266.44	8,887.00	19,548.26	8,862.00	98.42	96.14	88.86	-11,690.99	1,378.20	1,262.00	1,070.84	191.17	6.602	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	0.38	-19.99	19.99				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	0.38	-19.99	19.99	19.44	0.55	36.217	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	0.38	-19.99	19.99	18.72	1.27	15.756	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	0.38	-19.99	19.99	18.01	1.99	10.068	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	0.38	-19.99	19.99	17.29	2.70	7.397	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	0.38	-19.99	19.99	16.57	3.42	5.846	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	0.38	-19.99	19.99	15.86	4.14	4.833	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	0.38	-19.99	19.99	15.14	4.85	4.119	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	0.38	-19.99	19.99	14.42	5.57	3.589	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	0.38	-19.99	19.99	13.71	6.29	3.180	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	0.38	-19.99	19.99	12.99	7.00	2.854	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	-88.91	0.38	-19.99	19.99	12.27	7.72	2.589	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-88.91	0.38	-19.99	19.99	11.56	8.44	2.369	CC, ES
1,300.00	1,299.98	1,299.98	1,299.98	4.56	4.58	153.32	0.38	-19.99	21.54	12.40	9.14	2.356	SF
1,400.00	1,399.84	1,399.84	1,399.84	4.90	4.94	158.41	0.38	-19.99	26.32	16.48	9.84	2.676	
1,500.00	1,499.45	1,500.52	1,500.50	5.24	5.28	162.47	-0.71	-18.60	32.99	22.48	10.52	3.137	
1,600.00	1,598.70	1,601.44	1,601.27	5.58	5.62	164.48	-3.98	-14.41	39.91	28.73	11.18	3.570	
1,700.00	1,697.47	1,702.60	1,702.04	5.93	5.96	165.30	-9.45	-7.41	46.97	35.14	11.84	3.969	
1,800.00	1,795.62	1,803.99	1,802.66	6.28	6.30	165.39	-17.13	2.42	54.16	41.67	12.49	4.335	
1,810.29	1,805.68	1,814.44	1,812.99	6.32	6.34	165.24	-18.04	3.59	54.90	42.34	12.56	4.371	
1,900.00	1,893.37	1,905.69	1,903.07	6.63	6.65	164.59	-27.03	15.09	60.08	46.93	13.15	4.570	
2,000.00	1,991.11	2,007.64	2,003.09	6.99	7.01	162.73	-39.15	30.60	62.79	48.99	13.80	4.549	
2,100.00	2,088.85	2,109.57	2,102.34	7.35	7.36	159.53	-53.45	48.90	62.39	47.93	14.46	4.314	
2,200.00	2,186.59	2,210.18	2,199.59	7.72	7.72	154.88	-69.31	69.21	59.72	44.55	15.18	3.935	
2,300.00	2,284.33	2,310.01	2,296.02	8.08	8.08	149.70	-85.21	89.57	57.26	41.32	15.93	3.594	
2,400.00	2,382.07	2,409.84	2,392.45	8.45	8.45	144.11	-101.12	109.93	55.30	38.60	16.70	3.311	
2,500.00	2,479.81	2,509.67	2,488.88	8.82	8.81	138.16	-117.03	130.29	53.90	36.43	17.48	3.084	
2,600.00	2,577.55	2,609.50	2,585.30	9.19	9.18	131.98	-132.94	150.65	53.12	34.86	18.26	2.909	
2,673.53	2,649.42	2,682.91	2,656.21	9.47	9.46	127.35	-144.63	165.62	52.94	34.11	18.84	2.811	
2,700.00	2,675.29	2,709.33	2,681.73	9.57	9.56	125.68	-148.84	171.01	52.96	33.92	19.04	2.781	
2,800.00	2,773.03	2,809.16	2,778.16	9.94	9.93	119.42	-164.75	191.37	53.45	33.63	19.83	2.696	
2,900.00	2,870.77	2,908.99	2,874.59	10.32	10.31	113.35	-180.66	211.73	54.57	33.96	20.61	2.648	
3,000.00	2,968.51	3,008.82	2,971.01	10.70	10.69	107.58	-196.57	232.09	56.27	34.89	21.38	2.632	
3,100.00	3,066.25	3,108.65	3,067.44	11.07	11.07	102.20	-212.47	252.45	58.50	36.36	22.14	2.642	
3,200.00	3,163.99	3,208.48	3,163.87	11.45	11.45	97.26	-228.38	272.81	61.22	38.31	22.90	2.673	
3,300.00	3,261.73	3,308.30	3,260.30	11.83	11.84	92.76	-244.29	293.17	64.34	40.69	23.66	2.720	
3,400.00	3,359.47	3,408.13	3,356.73	12.21	12.22	88.70	-260.20	313.53	67.83	43.42	24.41	2.779	
3,500.00	3,457.21	3,507.96	3,453.15	12.59	12.61	85.06	-276.10	333.89	71.63	46.47	25.16	2.847	
3,600.00	3,554.95	3,607.79	3,549.58	12.97	13.00	81.79	-292.01	354.25	75.68	49.77	25.91	2.921	
3,700.00	3,652.69	3,707.62	3,646.01	13.35	13.39	78.86	-307.92	374.61	79.96	53.30	26.66	2.999	
3,800.00	3,750.43	3,807.45	3,742.44	13.73	13.78	76.23	-323.82	394.97	84.42	57.01	27.41	3.080	
3,900.00	3,848.17	3,907.28	3,838.87	14.12	14.17	73.88	-339.73	415.33	89.04	60.88	28.16	3.162	
4,000.00	3,945.91	4,007.11	3,935.29	14.50	14.56	71.76	-355.64	435.69	93.80	64.88	28.92	3.244	
4,100.00	4,043.65	4,106.94	4,031.72	14.88	14.95	69.84	-371.55	456.05	98.67	69.00	29.67	3.326	
4,200.00	4,141.39	4,206.77	4,128.15	15.27	15.34	68.11	-387.45	476.41	103.65	73.22	30.43	3.406	
4,300.00	4,239.13	4,306.60	4,224.58	15.65	15.73	66.53	-403.36	496.78	108.71	77.52	31.18	3.486	
4,400.00	4,336.87	4,406.43	4,321.00	16.03	16.13	65.10	-419.27	517.14	113.84	81.90	31.94	3.564	
4,500.00	4,434.61	4,506.26	4,417.43	16.42	16.52	63.79	-435.18	537.50	119.04	86.34	32.70	3.640	
4,600.00	4,532.35	4,606.09	4,513.86	16.80	16.92	62.60	-451.08	557.86	124.29	90.83	33.46	3.714	
4,700.00	4,630.09	4,705.92	4,610.29	17.19	17.31	61.50	-466.99	578.22	129.60	95.37	34.23	3.786	
4,800.00	4,727.83	4,805.75	4,706.72	17.57	17.71	60.48	-482.90	598.58	134.95	99.96	34.99	3.857	
4,900.00	4,825.57	4,905.58	4,803.14	17.96	18.10	59.55	-498.81	618.94	140.34	104.58	35.76	3.925	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,923.31	5,005.41	4,899.57	18.34	18.50	58.68	-514.71	639.30	145.76	109.24	36.52	3.991	
5,100.00	5,021.05	5,105.24	4,996.00	18.73	18.90	57.87	-530.62	659.66	151.21	113.93	37.29	4.055	
5,200.00	5,118.79	5,207.11	5,094.54	19.11	19.30	57.27	-546.51	680.00	156.34	118.25	38.09	4.104	
5,300.00	5,216.53	5,308.97	5,193.77	19.50	19.70	57.47	-560.67	698.17	159.62	120.73	38.89	4.105	
5,400.00	5,314.27	5,408.92	5,291.24	19.89	20.09	57.80	-574.27	715.62	162.59	122.93	39.66	4.100	
5,500.00	5,412.01	5,508.87	5,388.71	20.27	20.48	58.11	-587.86	733.08	165.57	125.14	40.43	4.095	
5,600.00	5,509.75	5,608.83	5,486.18	20.66	20.87	58.41	-601.46	750.53	168.55	127.35	41.20	4.091	
5,700.00	5,607.50	5,708.78	5,583.66	21.05	21.26	58.70	-615.06	767.98	171.54	129.56	41.97	4.087	
5,800.00	5,705.24	5,808.73	5,681.13	21.43	21.65	58.99	-628.65	785.43	174.53	131.78	42.74	4.083	
5,900.00	5,802.98	5,908.68	5,778.60	21.82	22.04	59.26	-642.25	802.89	177.52	134.01	43.51	4.080	
6,000.00	5,900.72	6,008.63	5,876.07	22.21	22.43	59.52	-655.85	820.34	180.52	136.23	44.29	4.076	
6,100.00	5,998.46	6,108.58	5,973.55	22.59	22.82	59.77	-669.45	837.79	183.52	138.46	45.06	4.073	
6,200.00	6,096.20	6,208.54	6,071.02	22.98	23.21	60.02	-683.04	855.24	186.53	140.70	45.83	4.070	
6,300.00	6,193.94	6,308.49	6,168.49	23.37	23.60	60.26	-696.64	872.70	189.54	142.93	46.60	4.067	
6,400.00	6,291.68	6,408.44	6,265.96	23.75	23.99	60.49	-710.24	890.15	192.55	145.17	47.37	4.064	
6,500.00	6,389.42	6,508.39	6,363.44	24.14	24.38	60.71	-723.83	907.60	195.56	147.42	48.15	4.062	
6,600.00	6,487.16	6,608.34	6,460.91	24.53	24.77	60.93	-737.43	925.05	198.58	149.66	48.92	4.059	
6,700.00	6,584.90	6,708.29	6,558.38	24.92	25.16	61.14	-751.03	942.51	201.60	151.91	49.69	4.057	
6,800.00	6,682.64	6,808.25	6,655.85	25.30	25.55	61.34	-764.62	959.96	204.63	154.16	50.47	4.055	
6,900.00	6,780.38	6,908.20	6,753.33	25.69	25.94	61.54	-778.22	977.41	207.65	156.42	51.24	4.053	
7,000.00	6,878.12	7,008.15	6,850.80	26.08	26.33	61.73	-791.82	994.87	210.68	158.67	52.01	4.051	
7,100.00	6,975.86	7,108.10	6,948.27	26.47	26.72	61.92	-805.42	1,012.32	213.71	160.93	52.78	4.049	
7,200.00	7,073.60	7,208.05	7,045.74	26.86	27.11	62.10	-819.01	1,029.77	216.75	163.19	53.56	4.047	
7,300.00	7,171.34	7,308.00	7,143.22	27.24	27.50	62.28	-832.61	1,047.22	219.78	165.45	54.33	4.045	
7,323.61	7,194.42	7,331.60	7,166.23	27.34	27.59	62.32	-835.82	1,051.34	220.50	165.98	54.51	4.045	
7,400.00	7,269.29	7,407.94	7,240.67	27.63	27.89	62.27	-846.20	1,064.67	223.29	168.19	55.10	4.053	
7,500.00	7,367.86	7,507.75	7,338.01	28.01	28.28	61.55	-859.78	1,082.10	228.40	172.55	55.85	4.089	
7,600.00	7,466.96	7,607.32	7,435.11	28.38	28.67	60.15	-873.33	1,099.49	235.27	178.69	56.59	4.158	
7,700.00	7,566.46	7,706.53	7,531.85	28.74	29.06	58.18	-886.82	1,116.81	244.13	186.82	57.31	4.260	
7,800.00	7,666.25	7,805.25	7,628.12	29.09	29.45	55.75	-900.25	1,134.05	255.24	197.22	58.02	4.399	
7,900.00	7,766.20	7,903.36	7,723.80	29.43	29.83	53.00	-913.60	1,151.18	268.92	210.21	58.71	4.580	
7,933.80	7,800.00	7,936.36	7,755.99	29.55	29.96	172.15	-918.09	1,156.94	274.18	215.24	58.94	4.652	
8,000.00	7,866.20	8,000.92	7,818.95	29.76	30.21	170.12	-926.87	1,168.21	284.98	225.60	59.39	4.799	
8,100.00	7,966.20	8,093.04	7,908.75	30.07	30.58	167.46	-939.49	1,184.41	302.09	242.08	60.00	5.035	
8,200.00	8,066.20	8,159.42	7,972.05	30.39	30.85	165.14	-951.70	1,200.07	326.04	265.96	60.08	5.427	
8,300.00	8,166.20	8,220.46	8,027.88	30.71	31.11	162.57	-966.84	1,219.48	359.75	300.05	59.70	6.026	
8,400.00	8,266.20	8,275.59	8,075.79	31.04	31.36	160.07	-983.59	1,240.93	402.69	343.77	58.93	6.834	
8,428.80	8,295.00	8,300.00	8,096.13	31.13	31.48	158.95	-991.89	1,251.57	416.84	357.76	59.07	7.056	
8,450.00	8,316.20	8,300.00	8,096.13	31.20	31.48	17.60	-991.89	1,251.57	427.04	368.66	58.38	7.315	
8,500.00	8,366.02	8,326.17	8,117.27	31.38	31.60	15.78	-1,001.38	1,263.73	450.34	392.50	57.85	7.785	
8,550.00	8,415.30	8,350.00	8,135.89	31.56	31.71	14.31	-1,010.53	1,275.44	471.94	414.80	57.13	8.261	
8,600.00	8,463.67	8,376.30	8,155.71	31.75	31.84	12.97	-1,021.17	1,289.07	491.72	435.25	56.47	8.708	
8,650.00	8,510.75	8,400.00	8,172.86	31.95	31.95	11.87	-1,031.23	1,301.96	509.65	454.05	55.60	9.166	
8,700.00	8,556.19	8,426.22	8,191.04	32.16	32.08	10.84	-1,042.86	1,316.85	525.66	470.85	54.80	9.591	
8,750.00	8,599.64	8,450.00	8,206.77	32.37	32.20	9.98	-1,053.84	1,330.91	539.71	485.90	53.81	10.030	
8,800.00	8,640.77	8,475.92	8,223.05	32.58	32.32	9.16	-1,066.26	1,346.80	551.75	498.88	52.87	10.436	
8,850.00	8,679.28	8,500.00	8,237.34	32.80	32.44	8.47	-1,078.18	1,362.07	561.77	510.00	51.77	10.852	
8,900.00	8,714.85	8,525.41	8,251.52	33.02	32.57	7.80	-1,091.16	1,378.69	569.73	519.04	50.69	11.240	
8,950.00	8,747.24	8,550.00	8,264.34	33.24	32.69	7.21	-1,104.07	1,395.22	575.61	526.10	49.51	11.626	
9,000.00	8,776.18	8,574.70	8,276.31	33.45	32.81	6.65	-1,117.38	1,412.25	579.41	531.11	48.30	11.997	
9,050.00	8,801.45	8,600.00	8,287.58	33.67	32.94	6.12	-1,131.31	1,430.09	581.10	534.02	47.09	12.342	
9,100.00	8,822.88	8,623.81	8,297.27	33.88	33.05	5.64	-1,144.70	1,447.23	580.70	534.95	45.75	12.693	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,150.00	8,840.29	8,650.00	8,306.88	34.09	33.18	5.13	-1,159.70	1,466.43	578.19	533.65	44.55	12.980	
9,178.80	8,848.43	8,650.00	8,306.88	34.21	33.18	5.15	-1,159.70	1,466.43	576.05	533.16	42.89	13.430	
9,200.00	8,853.73	8,672.77	8,314.31	34.30	33.29	4.69	-1,172.95	1,483.39	573.77	530.66	43.11	13.308	
9,300.00	8,873.56	8,735.07	8,331.03	34.70	33.60	3.44	-1,210.25	1,530.38	564.01	522.69	41.32	13.649	
9,400.00	8,884.77	8,818.25	8,351.14	35.10	34.01	2.18	-1,263.94	1,590.62	549.81	508.84	40.97	13.420	
9,478.80	8,887.48	8,884.44	8,365.94	35.42	34.34	1.57	-1,309.86	1,635.93	534.53	493.73	40.81	13.099	
9,500.00	8,887.48	8,900.00	8,369.26	35.50	34.42	1.48	-1,321.05	1,646.22	529.98	489.37	40.62	13.048	
9,600.00	8,887.48	8,987.36	8,386.71	35.91	34.86	1.34	-1,386.50	1,701.35	509.98	469.34	40.64	12.550	
9,700.00	8,887.48	9,072.96	8,401.82	36.33	35.29	1.91	-1,454.71	1,750.78	492.46	451.98	40.47	12.167	
9,800.00	8,887.48	9,158.16	8,414.80	36.78	35.71	3.23	-1,526.23	1,795.19	477.66	437.44	40.22	11.875	
9,900.00	8,887.48	9,242.04	8,425.51	37.25	36.11	5.30	-1,599.79	1,834.01	466.13	426.24	39.89	11.685	
10,000.00	8,887.48	9,323.77	8,433.92	37.74	36.50	8.03	-1,674.09	1,866.95	458.65	419.08	39.57	11.591	
10,095.42	8,887.48	9,400.00	8,439.92	38.22	36.84	11.18	-1,745.40	1,893.19	456.22	416.72	39.50	11.550	
10,100.00	8,887.48	9,400.00	8,439.92	38.24	36.84	11.18	-1,745.40	1,893.19	456.25	416.97	39.27	11.617	
10,133.80	8,887.48	9,428.53	8,441.70	38.41	36.97	12.50	-1,772.51	1,901.87	456.75	417.27	39.49	11.567	
10,200.00	8,887.48	9,478.31	8,444.20	38.76	37.18	14.93	-1,820.32	1,915.50	459.73	420.01	39.73	11.572	
10,300.00	8,887.48	9,551.37	8,446.45	39.29	37.48	18.67	-1,891.45	1,931.99	469.13	428.64	40.49	11.586	
10,400.00	8,887.48	9,623.86	8,447.04	39.83	37.78	22.47	-1,962.90	1,944.18	484.43	442.64	41.79	11.593	
10,500.00	8,887.48	9,707.61	8,447.02	40.37	38.10	26.67	-2,045.94	1,955.01	503.70	459.69	44.01	11.446	
10,600.00	8,887.48	9,790.45	8,446.96	40.92	38.41	30.55	-2,128.36	1,963.34	525.47	479.20	46.27	11.356	
10,700.00	8,887.48	9,872.43	8,446.87	41.47	38.72	34.12	-2,210.12	1,969.23	549.32	500.84	48.48	11.332	
10,800.00	8,887.47	9,953.60	8,446.75	42.02	39.03	37.39	-2,291.21	1,972.75	574.83	524.28	50.55	11.372	
10,900.00	8,887.47	10,034.12	8,446.60	42.56	39.33	40.37	-2,371.72	1,973.98	601.66	549.21	52.46	11.470	
11,000.00	8,887.47	10,126.44	8,446.40	43.11	39.68	43.33	-2,464.04	1,974.12	628.57	573.88	54.68	11.495	
11,100.00	8,887.47	10,220.05	8,446.21	43.65	40.03	45.86	-2,557.65	1,974.26	654.22	597.51	56.71	11.536	
11,200.00	8,887.46	10,314.83	8,446.01	44.18	40.41	48.01	-2,652.42	1,974.41	678.22	619.66	58.56	11.581	
11,300.00	8,887.46	10,410.66	8,445.81	44.71	40.79	49.83	-2,748.26	1,974.55	700.26	640.00	60.26	11.620	
11,400.00	8,887.46	10,507.43	8,445.60	45.22	41.19	51.35	-2,845.03	1,974.70	720.11	658.28	61.83	11.646	
11,500.00	8,887.45	10,605.02	8,445.40	45.73	41.60	52.60	-2,942.62	1,974.85	737.56	674.27	63.29	11.654	
11,600.00	8,887.45	10,703.31	8,445.19	46.23	42.02	53.61	-3,040.91	1,974.99	752.47	687.83	64.64	11.641	
11,700.00	8,887.45	10,802.18	8,444.98	46.72	42.46	54.40	-3,139.78	1,975.14	764.72	698.82	65.90	11.604	
11,800.00	8,887.44	10,901.52	8,444.77	47.20	42.90	54.99	-3,239.12	1,975.29	774.22	707.14	67.08	11.541	
11,900.00	8,887.44	11,001.19	8,444.57	47.67	43.36	55.40	-3,338.79	1,975.45	780.92	712.73	68.19	11.453	
12,000.00	8,887.43	11,101.09	8,444.36	48.13	43.82	55.61	-3,438.68	1,975.60	784.76	715.54	69.22	11.338	
12,078.43	8,887.43	11,179.50	8,444.19	48.48	44.19	55.66	-3,517.10	1,975.72	785.76	715.78	69.98	11.229	
12,100.00	8,887.43	11,201.07	8,444.15	48.57	44.29	55.66	-3,538.67	1,975.75	785.79	715.61	70.18	11.197	
12,200.00	8,887.42	11,301.07	8,443.94	49.01	44.77	55.65	-3,638.67	1,975.90	785.93	714.80	71.13	11.049	
12,300.00	8,887.42	11,401.07	8,443.73	49.47	45.26	55.64	-3,738.67	1,976.05	786.08	713.97	72.11	10.901	
12,400.00	8,887.41	11,501.07	8,443.51	49.92	45.76	55.63	-3,838.67	1,976.20	786.23	713.12	73.11	10.755	
12,500.00	8,887.41	11,601.07	8,443.30	50.39	46.26	55.62	-3,938.67	1,976.35	786.37	712.25	74.12	10.610	
12,600.00	8,887.40	11,701.07	8,443.09	50.86	46.77	55.60	-4,038.67	1,976.51	786.52	711.36	75.15	10.466	
12,700.00	8,887.40	11,801.07	8,442.88	51.34	47.28	55.59	-4,138.67	1,976.66	786.66	710.46	76.20	10.324	
12,800.00	8,887.39	11,901.07	8,442.67	51.82	47.80	55.58	-4,238.67	1,976.81	786.81	709.54	77.27	10.183	
12,900.00	8,887.39	12,001.07	8,442.46	52.31	48.33	55.57	-4,338.67	1,976.96	786.95	708.61	78.35	10.045	
13,000.00	8,887.38	12,101.07	8,442.25	52.81	48.87	55.56	-4,438.67	1,977.11	787.10	707.66	79.44	9.908	
13,100.00	8,887.37	12,201.07	8,442.04	53.31	49.41	55.55	-4,538.66	1,977.26	787.24	706.69	80.55	9.773	
13,200.00	8,887.37	12,301.07	8,441.83	53.82	49.95	55.54	-4,638.66	1,977.42	787.39	705.71	81.68	9.640	
13,300.00	8,887.36	12,401.07	8,441.62	54.34	50.50	55.53	-4,738.66	1,977.57	787.54	704.72	82.82	9.509	
13,400.00	8,887.36	12,501.07	8,441.41	54.86	51.06	55.52	-4,838.66	1,977.72	787.68	703.71	83.97	9.381	
13,500.00	8,887.35	12,601.07	8,441.20	55.38	51.62	55.51	-4,938.66	1,977.87	787.83	702.70	85.13	9.254	
13,600.00	8,887.35	12,701.07	8,440.99	55.91	52.19	55.50	-5,038.66	1,978.02	787.97	701.67	86.31	9.130	
13,700.00	8,887.34	12,801.07	8,440.78	56.45	52.76	55.49	-5,138.66	1,978.17	788.12	700.63	87.49	9.008	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - 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
13,800.00	8,887.34	12,901.07	8,440.57	56.99	53.34	55.47	-5,238.66	1,978.32	788.26	699.58	88.69	8.888	
13,900.00	8,887.33	13,001.07	8,440.36	57.54	53.92	55.46	-5,338.66	1,978.48	788.41	698.51	89.90	8.770	
14,000.00	8,887.33	13,101.07	8,440.15	58.09	54.50	55.45	-5,438.66	1,978.63	788.56	697.44	91.11	8.655	
14,100.00	8,887.32	13,201.07	8,439.94	58.64	55.09	55.44	-5,538.66	1,978.78	788.70	696.36	92.34	8.541	
14,200.00	8,887.32	13,301.07	8,439.73	59.20	55.68	55.43	-5,638.66	1,978.93	788.85	695.27	93.58	8.430	
14,300.00	8,887.31	13,401.07	8,439.52	59.77	56.28	55.42	-5,738.66	1,979.08	788.99	694.17	94.82	8.321	
14,400.00	8,887.31	13,501.07	8,439.31	60.34	56.88	55.41	-5,838.66	1,979.23	789.14	693.06	96.08	8.214	
14,500.00	8,887.30	13,601.07	8,439.10	60.91	57.49	55.40	-5,938.66	1,979.38	789.28	691.95	97.34	8.109	
14,600.00	8,887.30	13,701.07	8,438.89	61.49	58.10	55.39	-6,038.66	1,979.54	789.43	690.82	98.61	8.006	
14,700.00	8,887.29	13,801.07	8,438.68	62.07	58.71	55.38	-6,138.66	1,979.69	789.58	689.69	99.89	7.905	
14,800.00	8,887.29	13,901.07	8,438.47	62.65	59.33	55.37	-6,238.66	1,979.84	789.72	688.55	101.17	7.806	
14,900.00	8,887.28	14,001.07	8,438.26	63.24	59.95	55.36	-6,338.66	1,979.99	789.87	687.41	102.46	7.709	
15,000.00	8,887.28	14,101.07	8,438.05	63.83	60.57	55.35	-6,438.65	1,980.14	790.02	686.25	103.76	7.614	
15,100.00	8,887.27	14,201.07	8,437.84	64.43	61.19	55.33	-6,538.65	1,980.29	790.16	685.10	105.07	7.521	
15,200.00	8,887.27	14,301.07	8,437.63	65.03	61.82	55.32	-6,638.65	1,980.45	790.31	683.93	106.38	7.429	
15,300.00	8,887.26	14,401.07	8,437.42	65.63	62.45	55.31	-6,738.65	1,980.60	790.45	682.76	107.69	7.340	
15,400.00	8,887.25	14,501.07	8,437.21	66.24	63.09	55.30	-6,838.65	1,980.75	790.60	681.58	109.02	7.252	
15,500.00	8,887.25	14,601.07	8,437.00	66.85	63.73	55.29	-6,938.65	1,980.90	790.75	680.40	110.35	7.166	
15,600.00	8,887.24	14,701.07	8,436.79	67.46	64.37	55.28	-7,038.65	1,981.05	790.89	679.21	111.68	7.082	
15,700.00	8,887.24	14,801.07	8,436.58	68.07	65.01	55.27	-7,138.65	1,981.20	791.04	678.02	113.02	6.999	
15,800.00	8,887.23	14,901.07	8,436.37	68.69	65.66	55.26	-7,238.65	1,981.35	791.19	676.82	114.36	6.918	
15,900.00	8,887.23	15,001.07	8,436.16	69.31	66.30	55.25	-7,338.65	1,981.51	791.33	675.62	115.71	6.839	
16,000.00	8,887.22	15,101.07	8,435.95	69.94	66.95	55.24	-7,438.65	1,981.66	791.48	674.41	117.07	6.761	
16,100.00	8,887.22	15,201.07	8,435.74	70.56	67.61	55.23	-7,538.65	1,981.81	791.62	673.20	118.43	6.684	
16,200.00	8,887.21	15,301.07	8,435.53	71.19	68.26	55.22	-7,638.65	1,981.96	791.77	671.98	119.79	6.610	
16,300.00	8,887.21	15,401.07	8,435.32	71.83	68.92	55.21	-7,738.65	1,982.11	791.92	670.76	121.16	6.536	
16,400.00	8,887.20	15,501.07	8,435.11	72.46	69.58	55.20	-7,838.65	1,982.26	792.06	669.53	122.53	6.464	
16,500.00	8,887.20	15,601.07	8,434.90	73.10	70.24	55.18	-7,938.65	1,982.42	792.21	668.31	123.90	6.394	
16,600.00	8,887.19	15,701.06	8,434.69	73.74	70.90	55.17	-8,038.65	1,982.57	792.36	667.07	125.28	6.325	
16,700.00	8,887.19	15,801.06	8,434.48	74.38	71.57	55.16	-8,138.65	1,982.72	792.50	665.84	126.67	6.257	
16,800.00	8,887.18	15,901.06	8,434.27	75.02	72.24	55.15	-8,238.64	1,982.87	792.65	664.60	128.05	6.190	
16,900.00	8,887.18	16,001.06	8,434.06	75.67	72.91	55.14	-8,338.64	1,983.02	792.80	663.35	129.44	6.125	
17,000.00	8,887.17	16,101.06	8,433.85	76.32	73.58	55.13	-8,438.64	1,983.17	792.94	662.11	130.84	6.061	
17,100.00	8,887.17	16,201.06	8,433.64	76.97	74.25	55.12	-8,538.64	1,983.32	793.09	660.86	132.23	5.998	
17,200.00	8,887.16	16,301.06	8,433.43	77.62	74.92	55.11	-8,638.64	1,983.48	793.24	659.60	133.63	5.936	
17,300.00	8,887.16	16,401.06	8,433.22	78.28	75.60	55.10	-8,738.64	1,983.63	793.38	658.35	135.04	5.875	
17,400.00	8,887.15	16,501.06	8,433.01	78.93	76.28	55.09	-8,838.64	1,983.78	793.53	657.09	136.44	5.816	
17,500.00	8,887.14	16,601.06	8,432.80	79.59	76.96	55.08	-8,938.64	1,983.93	793.68	655.83	137.85	5.758	
17,600.00	8,887.14	16,701.06	8,432.59	80.25	77.64	55.07	-9,038.64	1,984.08	793.82	654.56	139.26	5.700	
17,700.00	8,887.13	16,801.06	8,432.38	80.91	78.32	55.06	-9,138.64	1,984.23	793.97	653.30	140.68	5.644	
17,800.00	8,887.13	16,901.06	8,432.17	81.58	79.01	55.05	-9,238.64	1,984.38	794.12	652.03	142.09	5.589	
17,900.00	8,887.12	17,001.06	8,431.96	82.24	79.69	55.04	-9,338.64	1,984.54	794.26	650.75	143.51	5.534	
18,000.00	8,887.12	17,101.06	8,431.75	82.91	80.38	55.02	-9,438.64	1,984.69	794.41	649.48	144.93	5.481	
18,100.00	8,887.11	17,201.06	8,431.54	83.58	81.07	55.01	-9,538.64	1,984.84	794.56	648.20	146.36	5.429	
18,200.00	8,887.11	17,301.06	8,431.33	84.25	81.76	55.00	-9,638.64	1,984.99	794.71	646.92	147.78	5.377	
18,300.00	8,887.10	17,401.06	8,431.12	84.92	82.45	54.99	-9,738.64	1,985.14	794.85	645.64	149.21	5.327	
18,400.00	8,887.10	17,501.06	8,430.91	85.60	83.14	54.98	-9,838.64	1,985.29	795.00	644.36	150.64	5.277	
18,500.00	8,887.09	17,601.06	8,430.70	86.27	83.83	54.97	-9,938.64	1,985.45	795.15	643.07	152.08	5.229	
18,600.00	8,887.09	17,701.06	8,430.49	86.95	84.53	54.96	-10,038.63	1,985.60	795.29	641.78	153.51	5.181	
18,700.00	8,887.08	17,801.06	8,430.28	87.63	85.22	54.95	-10,138.63	1,985.75	795.44	640.49	154.95	5.134	
18,800.00	8,887.08	17,901.06	8,430.07	88.31	85.92	54.94	-10,238.63	1,985.90	795.59	639.20	156.39	5.087	
18,900.00	8,887.07	18,001.06	8,429.86	88.99	86.62	54.93	-10,338.63	1,986.05	795.74	637.91	157.83	5.042	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - 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
19,000.00	8,887.07	18,101.06	8,429.65	89.67	87.32	54.92	-10,438.63	1,986.20	795.88	636.61	159.27	4.997	
19,100.00	8,887.06	18,201.06	8,429.44	90.36	88.02	54.91	-10,538.63	1,986.35	796.03	635.31	160.72	4.953	
19,200.00	8,887.06	18,301.06	8,429.23	91.04	88.72	54.90	-10,638.63	1,986.51	796.18	634.01	162.16	4.910	
19,300.00	8,887.05	18,401.06	8,429.01	91.73	89.42	54.89	-10,738.63	1,986.66	796.32	632.71	163.61	4.867	
19,400.00	8,887.05	18,501.06	8,428.80	92.42	90.13	54.88	-10,838.63	1,986.81	796.47	631.41	165.06	4.825	
19,500.00	8,887.04	18,601.06	8,428.59	93.11	90.83	54.87	-10,938.63	1,986.96	796.62	630.10	166.51	4.784	
19,600.00	8,887.04	18,701.06	8,428.38	93.80	91.54	54.86	-11,038.63	1,987.11	796.77	628.80	167.97	4.744	
19,700.00	8,887.03	18,801.06	8,428.17	94.49	92.24	54.84	-11,138.63	1,987.26	796.91	627.49	169.42	4.704	
19,800.00	8,887.02	18,901.06	8,427.96	95.18	92.95	54.83	-11,238.63	1,987.41	797.06	626.18	170.88	4.664	
19,900.00	8,887.02	19,001.06	8,427.75	95.87	93.66	54.82	-11,338.63	1,987.57	797.21	624.87	172.34	4.626	
20,000.00	8,887.01	19,101.06	8,427.54	96.57	94.37	54.81	-11,438.63	1,987.72	797.36	623.56	173.80	4.588	
20,100.00	8,887.01	19,201.06	8,427.33	97.26	95.08	54.80	-11,538.63	1,987.87	797.50	622.25	175.26	4.551	
20,200.00	8,887.00	19,301.06	8,427.12	97.96	95.79	54.79	-11,638.63	1,988.02	797.65	620.93	176.72	4.514	
20,200.31	8,887.00	19,301.36	8,427.12	97.96	95.79	54.79	-11,638.93	1,988.02	797.65	620.93	176.72	4.514	
20,266.44	8,887.00	19,359.83	8,427.00	98.42	96.21	54.79	-11,697.40	1,988.11	797.79	620.49	177.30	4.500	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 7H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	91.12	-0.39	19.99	19.99				
100.00	100.00	100.00	100.00	0.28	0.28	91.12	-0.39	19.99	19.99	19.44	0.55	36.218	
200.00	200.00	200.00	200.00	0.63	0.63	91.12	-0.39	19.99	19.99	18.72	1.27	15.756	
300.00	300.00	300.00	300.00	0.99	0.99	91.12	-0.39	19.99	19.99	18.01	1.99	10.068	
400.00	400.00	400.00	400.00	1.35	1.35	91.12	-0.39	19.99	19.99	17.29	2.70	7.397	
500.00	500.00	500.00	500.00	1.71	1.71	91.12	-0.39	19.99	19.99	16.57	3.42	5.846	
600.00	600.00	600.00	600.00	2.07	2.07	91.12	-0.39	19.99	19.99	15.86	4.14	4.833	
700.00	700.00	700.00	700.00	2.43	2.43	91.12	-0.39	19.99	19.99	15.14	4.85	4.119	
800.00	800.00	800.00	800.00	2.79	2.79	91.12	-0.39	19.99	19.99	14.42	5.57	3.589	
900.00	900.00	900.00	900.00	3.14	3.14	91.12	-0.39	19.99	19.99	13.71	6.29	3.180	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	91.12	-0.39	19.99	19.99	12.99	7.00	2.854	CC, ES
1,100.00	1,100.00	1,099.40	1,099.39	3.86	3.84	93.89	-1.45	21.35	21.41	13.70	7.70	2.779	SF
1,200.00	1,200.00	1,198.57	1,198.41	4.22	4.18	100.32	-4.63	25.41	25.88	17.49	8.38	3.087	
1,300.00	1,299.98	1,297.42	1,296.89	4.56	4.51	-13.57	-9.89	32.15	32.08	23.04	9.04	3.548	
1,400.00	1,399.84	1,396.03	1,394.77	4.90	4.85	-8.79	-17.22	41.53	38.38	28.70	9.68	3.965	
1,500.00	1,499.45	1,494.41	1,491.96	5.24	5.19	-4.80	-26.59	53.52	44.75	34.43	10.31	4.338	
1,600.00	1,598.70	1,592.54	1,588.33	5.58	5.54	-1.30	-37.98	68.11	51.17	40.23	10.94	4.677	
1,700.00	1,697.47	1,690.44	1,683.78	5.93	5.88	1.86	-51.37	85.24	57.66	46.09	11.56	4.986	
1,800.00	1,795.62	1,790.06	1,780.44	6.28	6.24	4.77	-66.19	104.22	62.83	50.58	12.26	5.127	
1,810.29	1,805.68	1,800.34	1,790.41	6.32	6.28	4.92	-67.73	106.18	63.18	50.85	12.33	5.125	
1,900.00	1,893.37	1,889.97	1,877.38	6.63	6.61	7.29	-81.07	123.26	66.09	53.13	12.97	5.096	
2,000.00	1,991.11	1,989.87	1,974.31	6.99	6.98	9.69	-95.95	142.31	69.47	55.78	13.69	5.074	
2,100.00	2,088.85	2,089.77	2,071.25	7.35	7.35	11.87	-110.83	161.35	72.95	58.53	14.42	5.059	
2,200.00	2,186.59	2,189.67	2,168.18	7.72	7.72	13.85	-125.71	180.40	76.53	61.37	15.15	5.050	
2,300.00	2,284.33	2,289.58	2,265.12	8.08	8.10	15.65	-140.59	199.44	80.19	64.29	15.89	5.045	
2,400.00	2,382.07	2,389.48	2,362.05	8.45	8.48	17.29	-155.47	218.49	83.92	67.28	16.64	5.044	
2,500.00	2,479.81	2,489.38	2,458.99	8.82	8.86	18.79	-170.35	237.53	87.71	70.33	17.39	5.045	
2,600.00	2,577.55	2,589.28	2,555.92	9.19	9.24	20.16	-185.23	256.58	91.56	73.43	18.14	5.049	
2,700.00	2,675.29	2,689.19	2,652.86	9.57	9.63	21.42	-200.11	275.62	95.46	76.57	18.89	5.054	
2,800.00	2,773.03	2,789.09	2,749.79	9.94	10.01	22.58	-214.99	294.67	99.40	79.76	19.65	5.060	
2,900.00	2,870.77	2,888.99	2,846.73	10.32	10.40	23.66	-229.87	313.71	103.38	82.98	20.40	5.067	
3,000.00	2,968.51	2,988.90	2,943.67	10.70	10.78	24.65	-244.75	332.76	107.40	86.23	21.16	5.075	
3,100.00	3,066.25	3,088.80	3,040.60	11.07	11.17	25.57	-259.63	351.80	111.44	89.52	21.92	5.083	
3,200.00	3,163.99	3,188.70	3,137.54	11.45	11.56	26.43	-274.51	370.85	115.51	92.82	22.68	5.092	
3,300.00	3,261.73	3,288.60	3,234.47	11.83	11.95	27.23	-289.39	389.89	119.60	96.15	23.45	5.101	
3,400.00	3,359.47	3,388.51	3,331.41	12.21	12.34	27.98	-304.27	408.94	123.72	99.50	24.21	5.110	
3,500.00	3,457.21	3,488.41	3,428.34	12.59	12.73	28.67	-319.15	427.98	127.85	102.87	24.98	5.119	
3,600.00	3,554.95	3,588.31	3,525.28	12.97	13.12	29.33	-334.03	447.03	132.00	106.26	25.74	5.127	
3,700.00	3,652.69	3,688.22	3,622.21	13.35	13.51	29.94	-348.91	466.07	136.17	109.66	26.51	5.136	
3,800.00	3,750.43	3,788.12	3,719.15	13.73	13.90	30.52	-363.79	485.12	140.35	113.08	27.28	5.145	
3,900.00	3,848.17	3,888.02	3,816.08	14.12	14.30	31.06	-378.67	504.16	144.55	116.50	28.05	5.154	
4,000.00	3,945.91	3,987.92	3,913.02	14.50	14.69	31.58	-393.55	523.21	148.76	119.94	28.82	5.162	
4,100.00	4,043.65	4,087.83	4,009.95	14.88	15.08	32.06	-408.43	542.26	152.98	123.39	29.59	5.171	
4,200.00	4,141.39	4,187.73	4,106.89	15.27	15.47	32.52	-423.31	561.30	157.21	126.85	30.36	5.179	
4,300.00	4,239.13	4,287.63	4,203.82	15.65	15.87	32.96	-438.19	580.35	161.45	130.32	31.13	5.187	
4,400.00	4,336.87	4,387.53	4,300.76	16.03	16.26	33.37	-453.07	599.39	165.70	133.80	31.90	5.195	
4,500.00	4,434.61	4,487.44	4,397.69	16.42	16.65	33.76	-467.95	618.44	169.96	137.29	32.67	5.202	
4,600.00	4,532.35	4,587.34	4,494.63	16.80	17.05	34.13	-482.83	637.48	174.22	140.78	33.44	5.210	
4,700.00	4,630.09	4,687.24	4,591.56	17.19	17.44	34.49	-497.71	656.53	178.49	144.28	34.21	5.217	
4,800.00	4,727.83	4,787.15	4,688.50	17.57	17.84	34.83	-512.59	675.57	182.77	147.78	34.99	5.224	
4,900.00	4,825.57	4,887.05	4,785.43	17.96	18.23	35.15	-527.47	694.62	187.05	151.30	35.76	5.231	
5,000.00	4,923.31	4,986.95	4,882.37	18.34	18.63	35.46	-542.35	713.66	191.34	154.81	36.53	5.238	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 7H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,021.05	5,086.85	4,979.30	18.73	19.02	35.75	-557.23	732.71	195.64	158.33	37.31	5.244	
5,200.00	5,118.79	5,186.76	5,076.24	19.11	19.42	36.04	-572.11	751.75	199.94	161.86	38.08	5.251	
5,300.00	5,216.53	5,286.66	5,173.18	19.50	19.81	36.31	-586.98	770.80	204.24	165.39	38.85	5.257	
5,400.00	5,314.27	5,386.56	5,270.11	19.89	20.21	36.56	-601.86	789.84	208.55	168.93	39.63	5.263	
5,500.00	5,412.01	5,486.46	5,367.05	20.27	20.61	36.81	-616.74	808.89	212.87	172.47	40.40	5.269	
5,600.00	5,509.75	5,586.37	5,463.98	20.66	21.00	37.05	-631.62	827.93	217.18	176.01	41.18	5.275	
5,700.00	5,607.50	5,686.27	5,560.92	21.05	21.40	37.28	-646.50	846.98	221.50	179.55	41.95	5.280	
5,800.00	5,705.24	5,786.17	5,657.85	21.43	21.79	37.50	-661.38	866.02	225.83	183.10	42.73	5.286	
5,900.00	5,802.98	5,886.08	5,754.79	21.82	22.19	37.71	-676.26	885.07	230.16	186.65	43.50	5.291	
6,000.00	5,900.72	5,985.98	5,851.72	22.21	22.59	37.92	-691.14	904.11	234.49	190.21	44.28	5.296	
6,100.00	5,998.46	6,085.88	5,948.66	22.59	22.98	38.12	-706.02	923.16	238.82	193.77	45.05	5.301	
6,200.00	6,096.20	6,185.78	6,045.59	22.98	23.38	38.31	-720.90	942.20	243.15	197.33	45.83	5.306	
6,300.00	6,193.94	6,285.69	6,142.53	23.37	23.78	38.49	-735.78	961.25	247.49	200.89	46.60	5.311	
6,400.00	6,291.68	6,385.59	6,239.46	23.75	24.17	38.67	-750.66	980.29	251.83	204.46	47.38	5.315	
6,500.00	6,389.42	6,485.49	6,336.40	24.14	24.57	38.84	-765.54	999.34	256.18	208.02	48.15	5.320	
6,600.00	6,487.16	6,585.40	6,433.33	24.53	24.97	39.00	-780.42	1,018.38	260.52	211.59	48.93	5.324	
6,700.00	6,584.90	6,685.30	6,530.27	24.92	25.36	39.16	-795.30	1,037.43	264.87	215.16	49.71	5.329	
6,800.00	6,682.64	6,785.20	6,627.20	25.30	25.76	39.32	-810.18	1,056.47	269.22	218.74	50.48	5.333	
6,900.00	6,780.38	6,885.10	6,724.14	25.69	26.16	39.47	-825.06	1,075.52	273.57	222.31	51.26	5.337	
7,000.00	6,878.12	6,985.01	6,821.07	26.08	26.55	39.61	-839.94	1,094.56	277.92	225.89	52.03	5.341	
7,100.00	6,975.86	7,084.91	6,918.01	26.47	26.95	39.75	-854.82	1,113.61	282.28	229.47	52.81	5.345	
7,200.00	7,073.60	7,184.81	7,014.94	26.86	27.35	39.89	-869.70	1,132.66	286.64	233.05	53.59	5.349	
7,300.00	7,171.34	7,284.71	7,111.88	27.24	27.75	40.02	-884.58	1,151.70	290.99	236.63	54.36	5.353	
7,323.61	7,194.42	7,308.30	7,134.77	27.34	27.84	40.05	-888.09	1,156.20	292.02	237.48	54.55	5.354	
7,400.00	7,269.29	7,361.49	7,185.73	27.63	28.06	39.88	-897.43	1,168.15	299.05	244.33	54.73	5.464	
7,500.00	7,367.86	7,428.15	7,247.24	28.01	28.35	38.90	-913.18	1,188.31	319.51	264.97	54.54	5.858	
7,600.00	7,466.96	7,489.69	7,301.05	28.38	28.63	37.44	-931.53	1,211.79	352.36	298.47	53.90	6.537	
7,700.00	7,566.46	7,550.00	7,350.39	28.74	28.91	35.70	-952.86	1,239.09	396.92	343.76	53.16	7.466	
7,800.00	7,666.25	7,600.00	7,388.34	29.09	29.15	34.28	-972.88	1,264.72	451.92	399.86	52.06	8.681	
7,900.00	7,766.20	7,633.54	7,412.15	29.43	29.32	33.67	-987.42	1,283.33	515.75	465.37	50.38	10.237	
7,933.80	7,800.00	7,650.00	7,423.32	29.55	29.40	153.38	-994.86	1,292.85	539.16	489.00	50.16	10.749	
8,000.00	7,866.20	7,668.39	7,435.38	29.76	29.49	152.52	-1,003.41	1,303.79	586.76	537.64	49.12	11.946	
8,100.00	7,966.20	7,700.00	7,455.05	30.07	29.65	151.13	-1,018.64	1,323.29	662.19	614.20	47.98	13.800	
8,200.00	8,066.20	7,725.43	7,469.87	30.39	29.78	150.07	-1,031.36	1,339.57	741.12	694.28	46.84	15.823	
8,300.00	8,166.20	7,750.00	7,483.30	30.71	29.90	149.10	-1,044.03	1,355.78	822.93	777.02	45.91	17.927	
8,400.00	8,266.20	7,769.63	7,493.39	31.04	30.00	148.37	-1,054.39	1,369.05	907.08	862.10	44.99	20.163	
8,428.80	8,295.00	7,775.16	7,496.12	31.13	30.03	148.17	-1,057.35	1,372.84	931.70	886.94	44.76	20.817	
8,450.00	8,316.20	7,779.24	7,498.11	31.20	30.05	6.62	-1,059.54	1,375.64	949.72	905.13	44.59	21.301	
8,500.00	8,366.02	7,800.00	7,507.84	31.38	30.15	5.27	-1,070.83	1,390.10	991.03	946.49	44.55	22.248	
8,550.00	8,415.30	7,800.00	7,507.84	31.56	30.15	4.73	-1,070.83	1,390.10	1,030.05	986.37	43.68	23.582	
8,600.00	8,463.67	7,800.00	7,507.84	31.75	30.15	4.29	-1,070.83	1,390.10	1,067.27	1,024.49	42.78	24.947	
8,650.00	8,510.75	7,824.01	7,518.26	31.95	30.27	3.52	-1,084.15	1,407.14	1,101.84	1,059.16	42.68	25.818	
8,700.00	8,556.19	7,850.00	7,528.50	32.16	30.41	2.86	-1,098.86	1,425.96	1,134.46	1,091.87	42.58	26.642	
8,750.00	8,599.64	7,850.00	7,528.50	32.37	30.41	2.68	-1,098.86	1,425.96	1,164.11	1,122.54	41.58	27.999	
8,800.00	8,640.77	7,850.00	7,528.50	32.58	30.41	2.53	-1,098.86	1,425.96	1,191.64	1,151.09	40.56	29.382	
8,850.00	8,679.28	7,876.73	7,537.89	32.80	30.54	2.08	-1,114.26	1,445.68	1,216.07	1,175.70	40.37	30.121	
8,900.00	8,714.85	7,900.00	7,545.11	33.02	30.66	1.72	-1,127.88	1,463.11	1,238.09	1,198.05	40.04	30.918	
8,950.00	8,747.24	7,900.00	7,545.11	33.24	30.66	1.66	-1,127.88	1,463.11	1,257.12	1,218.14	38.97	32.255	
9,000.00	8,776.18	7,919.09	7,550.36	33.45	30.75	1.41	-1,139.18	1,477.58	1,273.33	1,234.85	38.48	33.090	
9,050.00	8,801.45	7,941.65	7,555.98	33.67	30.87	1.15	-1,152.63	1,494.79	1,286.53	1,248.45	38.08	33.788	
9,100.00	8,822.88	7,964.13	7,561.16	33.88	30.98	0.90	-1,166.10	1,512.03	1,296.50	1,258.84	37.66	34.426	
9,150.00	8,840.29	8,000.00	7,568.52	34.09	31.16	0.54	-1,187.71	1,539.69	1,303.35	1,265.73	37.63	34.639	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 7H - OH - Plan 1

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,178.80	8,848.43	8,000.00	7,568.52	34.21	31.16	0.54	-1,187.71	1,539.69	1,305.58	1,268.57	37.01	35.278	
9,200.00	8,853.73	8,000.00	7,568.52	34.30	31.16	0.54	-1,187.71	1,539.69	1,306.90	1,270.34	36.56	35.746	
9,300.00	8,873.56	8,055.05	7,577.68	34.70	31.43	0.00	-1,221.13	1,582.46	1,309.98	1,273.94	36.04	36.343	
9,400.00	8,884.77	8,100.00	7,583.22	35.10	31.66	-0.44	-1,248.59	1,617.61	1,308.66	1,273.35	35.31	37.065	
9,478.80	8,887.48	8,136.36	7,586.42	35.42	31.84	-0.80	-1,270.88	1,646.15	1,304.47	1,269.66	34.81	37.474	
9,500.00	8,887.48	8,146.00	7,587.07	35.50	31.89	-0.90	-1,276.81	1,653.73	1,303.06	1,268.38	34.68	37.571	
9,600.00	8,887.48	8,200.00	7,589.24	35.91	32.17	-1.43	-1,310.02	1,696.25	1,299.06	1,264.71	34.35	37.814	
9,644.92	8,887.48	8,212.11	7,589.38	36.10	32.23	-1.55	-1,317.48	1,705.78	1,298.58	1,264.61	33.96	38.237	
9,700.00	8,887.48	8,257.86	7,589.40	36.33	32.46	-2.01	-1,345.65	1,741.84	1,298.92	1,264.69	34.23	37.952	
9,800.00	8,887.48	8,355.30	7,589.40	36.78	32.97	-2.97	-1,405.63	1,818.62	1,299.92	1,264.82	35.10	37.033	
9,900.00	8,887.48	8,453.17	7,589.40	37.25	33.50	-3.94	-1,465.91	1,895.73	1,301.31	1,265.24	36.07	36.080	
10,000.00	8,887.48	8,556.78	7,589.40	37.74	34.09	-4.82	-1,532.26	1,975.29	1,302.82	1,265.59	37.23	34.995	
10,100.00	8,887.48	8,662.33	7,589.40	38.24	34.70	-5.47	-1,604.18	2,052.52	1,304.08	1,265.64	38.45	33.919	
10,133.80	8,887.48	8,698.34	7,589.40	38.41	34.91	-5.63	-1,629.68	2,077.94	1,304.42	1,265.56	38.86	33.564	
10,200.00	8,887.48	8,769.16	7,589.40	38.76	35.34	-5.89	-1,681.21	2,126.52	1,305.00	1,265.31	39.70	32.875	
10,300.00	8,887.48	8,876.68	7,589.40	39.29	35.98	-6.19	-1,762.79	2,196.53	1,305.73	1,264.75	40.98	31.864	
10,400.00	8,887.48	8,984.68	7,589.40	39.83	36.64	-6.41	-1,848.58	2,262.13	1,306.25	1,263.97	42.28	30.894	
10,500.00	8,887.48	9,093.00	7,589.40	40.37	37.29	-6.52	-1,938.21	2,322.94	1,306.55	1,262.95	43.59	29.971	
10,600.00	8,887.48	9,201.45	7,589.40	40.92	37.93	-6.54	-2,031.24	2,378.63	1,306.59	1,261.69	44.90	29.100	
10,700.00	8,887.48	9,309.84	7,589.39	41.47	38.57	-6.46	-2,127.23	2,428.93	1,306.39	1,260.20	46.19	28.281	
10,800.00	8,887.47	9,417.98	7,589.39	42.02	39.19	-6.28	-2,225.70	2,473.61	1,305.95	1,258.49	47.46	27.516	
10,900.00	8,887.47	9,525.70	7,589.39	42.56	39.79	-6.01	-2,326.14	2,512.50	1,305.30	1,256.60	48.70	26.803	
11,000.00	8,887.47	9,632.81	7,589.38	43.11	40.37	-5.64	-2,428.03	2,545.50	1,304.46	1,254.55	49.90	26.140	
11,100.00	8,887.47	9,739.16	7,589.38	43.65	40.92	-5.18	-2,530.87	2,572.56	1,303.48	1,252.41	51.07	25.525	
11,200.00	8,887.46	9,844.59	7,589.38	44.18	41.45	-4.63	-2,634.14	2,593.70	1,302.41	1,250.22	52.19	24.954	
11,300.00	8,887.46	9,948.96	7,589.37	44.71	41.94	-3.99	-2,737.37	2,608.98	1,301.32	1,248.05	53.27	24.427	
11,400.00	8,887.46	10,052.15	7,589.37	45.22	42.41	-3.27	-2,840.10	2,618.52	1,300.27	1,245.96	54.32	23.939	
11,500.00	8,887.45	10,154.03	7,589.37	45.73	42.86	-2.48	-2,941.90	2,622.48	1,299.35	1,244.03	55.32	23.489	
11,600.00	8,887.45	10,252.92	7,589.36	46.23	43.27	-1.70	-3,040.78	2,622.78	1,298.67	1,242.39	56.29	23.073	
11,700.00	8,887.45	10,351.80	7,589.36	46.72	43.69	-1.06	-3,139.66	2,622.97	1,298.31	1,240.98	57.33	22.647	
11,800.00	8,887.44	10,451.14	7,589.35	47.20	44.12	-0.56	-3,239.00	2,623.17	1,298.15	1,239.69	58.46	22.207	
11,900.00	8,887.44	10,550.82	7,589.35	47.67	44.56	-0.21	-3,338.68	2,623.37	1,298.10	1,238.43	59.66	21.757	
12,000.00	8,887.43	10,650.71	7,589.34	48.13	45.01	-0.01	-3,438.58	2,623.56	1,298.09	1,237.14	60.94	21.300	
12,078.43	8,887.43	10,729.13	7,589.34	48.48	45.37	0.04	-3,516.99	2,623.72	1,298.09	1,236.09	62.00	20.938	
12,100.00	8,887.43	10,750.70	7,589.34	48.57	45.46	0.04	-3,538.57	2,623.76	1,298.09	1,235.79	62.29	20.838	
12,200.00	8,887.42	10,850.70	7,589.34	49.01	45.93	0.04	-3,638.57	2,623.96	1,298.09	1,234.41	63.67	20.387	
12,300.00	8,887.42	10,950.70	7,589.33	49.47	46.40	0.03	-3,738.57	2,624.15	1,298.08	1,233.02	65.06	19.952	
12,400.00	8,887.41	11,050.70	7,589.33	49.92	46.88	0.03	-3,838.57	2,624.35	1,298.08	1,231.63	66.46	19.533	
12,500.00	8,887.41	11,150.70	7,589.32	50.39	47.37	0.03	-3,938.57	2,624.55	1,298.08	1,230.22	67.86	19.129	
12,600.00	8,887.40	11,250.70	7,589.32	50.86	47.86	0.03	-4,038.57	2,624.75	1,298.08	1,228.81	69.27	18.739	
12,700.00	8,887.40	11,350.70	7,589.32	51.34	48.36	0.03	-4,138.57	2,624.94	1,298.08	1,227.39	70.69	18.363	
12,800.00	8,887.39	11,450.70	7,589.31	51.82	48.87	0.03	-4,238.57	2,625.14	1,298.08	1,225.97	72.11	18.001	
12,900.00	8,887.39	11,550.70	7,589.31	52.31	49.38	0.03	-4,338.56	2,625.34	1,298.08	1,224.54	73.54	17.651	
13,000.00	8,887.38	11,650.70	7,589.30	52.81	49.90	0.03	-4,438.56	2,625.54	1,298.08	1,223.10	74.98	17.313	
13,100.00	8,887.37	11,750.70	7,589.30	53.31	50.43	0.03	-4,538.56	2,625.73	1,298.08	1,221.66	76.42	16.987	
13,200.00	8,887.37	11,850.70	7,589.29	53.82	50.96	0.03	-4,638.56	2,625.93	1,298.08	1,220.21	77.86	16.671	
13,300.00	8,887.36	11,950.70	7,589.29	54.34	51.50	0.03	-4,738.56	2,626.13	1,298.07	1,218.76	79.31	16.367	
13,400.00	8,887.36	12,050.70	7,589.29	54.86	52.04	0.03	-4,838.56	2,626.33	1,298.07	1,217.31	80.77	16.072	
13,500.00	8,887.35	12,150.70	7,589.28	55.38	52.59	0.03	-4,938.56	2,626.52	1,298.07	1,215.85	82.23	15.787	
13,600.00	8,887.35	12,250.70	7,589.28	55.91	53.15	0.03	-5,038.56	2,626.72	1,298.07	1,214.38	83.69	15.511	
13,700.00	8,887.34	12,350.70	7,589.27	56.45	53.71	0.03	-5,138.56	2,626.92	1,298.07	1,212.91	85.16	15.244	
13,800.00	8,887.34	12,450.70	7,589.27	56.99	54.27	0.03	-5,238.56	2,627.12	1,298.07	1,211.44	86.63	14.985	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 7H - 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.00	8,887.33	12,550.70	7,589.27	57.54	54.84	0.03	-5,338.56	2,627.31	1,298.07	1,209.97	88.10	14.734	
14,000.00	8,887.33	12,650.70	7,589.26	58.09	55.41	0.03	-5,438.56	2,627.51	1,298.07	1,208.49	89.58	14.491	
14,100.00	8,887.32	12,750.70	7,589.26	58.64	55.99	0.03	-5,538.56	2,627.71	1,298.07	1,207.01	91.06	14.256	
14,200.00	8,887.32	12,850.70	7,589.25	59.20	56.57	0.03	-5,638.56	2,627.90	1,298.06	1,205.53	92.54	14.027	
14,300.00	8,887.31	12,950.70	7,589.25	59.77	57.16	0.03	-5,738.56	2,628.10	1,298.06	1,204.04	94.02	13.806	
14,400.00	8,887.31	13,050.70	7,589.24	60.34	57.75	0.03	-5,838.56	2,628.30	1,298.06	1,202.55	95.51	13.590	
14,500.00	8,887.30	13,150.70	7,589.24	60.91	58.34	0.03	-5,938.56	2,628.50	1,298.06	1,201.06	97.00	13.382	
14,600.00	8,887.30	13,250.70	7,589.24	61.49	58.94	0.02	-6,038.56	2,628.69	1,298.06	1,199.56	98.50	13.179	
14,700.00	8,887.29	13,350.70	7,589.23	62.07	59.54	0.02	-6,138.56	2,628.89	1,298.06	1,198.07	99.99	12.982	
14,800.00	8,887.29	13,450.70	7,589.23	62.65	60.15	0.02	-6,238.56	2,629.09	1,298.06	1,196.57	101.49	12.790	
14,900.00	8,887.28	13,550.70	7,589.22	63.24	60.76	0.02	-6,338.56	2,629.29	1,298.06	1,195.07	102.99	12.604	
15,000.00	8,887.28	13,650.70	7,589.22	63.83	61.37	0.02	-6,438.56	2,629.48	1,298.06	1,193.56	104.49	12.422	
15,100.00	8,887.27	13,750.70	7,589.22	64.43	61.99	0.02	-6,538.56	2,629.68	1,298.05	1,192.06	106.00	12.246	
15,200.00	8,887.27	13,850.70	7,589.21	65.03	62.61	0.02	-6,638.56	2,629.88	1,298.05	1,190.55	107.50	12.075	
15,300.00	8,887.26	13,950.70	7,589.21	65.63	63.23	0.02	-6,738.56	2,630.08	1,298.05	1,189.04	109.01	11.908	
15,400.00	8,887.25	14,050.70	7,589.20	66.24	63.86	0.02	-6,838.56	2,630.27	1,298.05	1,187.53	110.52	11.745	
15,500.00	8,887.25	14,150.70	7,589.20	66.85	64.49	0.02	-6,938.56	2,630.47	1,298.05	1,186.02	112.03	11.586	
15,600.00	8,887.24	14,250.70	7,589.19	67.46	65.12	0.02	-7,038.56	2,630.67	1,298.05	1,184.51	113.54	11.432	
15,700.00	8,887.24	14,350.70	7,589.19	68.07	65.75	0.02	-7,138.56	2,630.87	1,298.05	1,182.99	115.06	11.282	
15,800.00	8,887.23	14,450.70	7,589.19	68.69	66.39	0.02	-7,238.56	2,631.06	1,298.05	1,181.47	116.57	11.135	
15,900.00	8,887.23	14,550.70	7,589.18	69.31	67.03	0.02	-7,338.56	2,631.26	1,298.05	1,179.96	118.09	10.992	
16,000.00	8,887.22	14,650.70	7,589.18	69.94	67.68	0.02	-7,438.56	2,631.46	1,298.05	1,178.44	119.61	10.852	
16,100.00	8,887.22	14,750.70	7,589.17	70.56	68.32	0.02	-7,538.56	2,631.66	1,298.04	1,176.91	121.13	10.716	
16,200.00	8,887.21	14,850.70	7,589.17	71.19	68.97	0.02	-7,638.56	2,631.85	1,298.04	1,175.39	122.65	10.583	
16,300.00	8,887.21	14,950.70	7,589.17	71.83	69.62	0.02	-7,738.56	2,632.05	1,298.04	1,173.87	124.17	10.454	
16,400.00	8,887.20	15,050.70	7,589.16	72.46	70.27	0.02	-7,838.56	2,632.25	1,298.04	1,172.34	125.70	10.327	
16,500.00	8,887.20	15,150.70	7,589.16	73.10	70.93	0.02	-7,938.56	2,632.45	1,298.04	1,170.82	127.22	10.203	
16,600.00	8,887.19	15,250.70	7,589.15	73.74	71.58	0.02	-8,038.56	2,632.64	1,298.04	1,169.29	128.75	10.082	
16,700.00	8,887.19	15,350.70	7,589.15	74.38	72.24	0.02	-8,138.56	2,632.84	1,298.04	1,167.76	130.27	9.964	
16,800.00	8,887.18	15,450.70	7,589.14	75.02	72.90	0.02	-8,238.56	2,633.04	1,298.04	1,166.24	131.80	9.848	
16,900.00	8,887.18	15,550.70	7,589.14	75.67	73.57	0.01	-8,338.56	2,633.23	1,298.04	1,164.71	133.33	9.736	
17,000.00	8,887.17	15,650.70	7,589.14	76.32	74.23	0.01	-8,438.56	2,633.43	1,298.03	1,163.18	134.86	9.625	
17,100.00	8,887.17	15,750.70	7,589.13	76.97	74.90	0.01	-8,538.56	2,633.63	1,298.03	1,161.64	136.39	9.517	
17,200.00	8,887.16	15,850.70	7,589.13	77.62	75.57	0.01	-8,638.56	2,633.83	1,298.03	1,160.11	137.92	9.411	
17,300.00	8,887.16	15,950.70	7,589.12	78.28	76.24	0.01	-8,738.56	2,634.02	1,298.03	1,158.58	139.45	9.308	
17,400.00	8,887.15	16,050.70	7,589.12	78.93	76.91	0.01	-8,838.56	2,634.22	1,298.03	1,157.04	140.99	9.207	
17,500.00	8,887.14	16,150.70	7,589.12	79.59	77.58	0.01	-8,938.56	2,634.42	1,298.03	1,155.51	142.52	9.108	
17,600.00	8,887.14	16,250.70	7,589.11	80.25	78.26	0.01	-9,038.56	2,634.62	1,298.03	1,153.97	144.05	9.011	
17,700.00	8,887.13	16,350.70	7,589.11	80.91	78.94	0.01	-9,138.56	2,634.81	1,298.03	1,152.44	145.59	8.916	
17,800.00	8,887.13	16,450.70	7,589.10	81.58	79.62	0.01	-9,238.56	2,635.01	1,298.03	1,150.90	147.13	8.823	
17,900.00	8,887.12	16,550.70	7,589.10	82.24	80.30	0.01	-9,338.56	2,635.21	1,298.03	1,149.36	148.66	8.731	
18,000.00	8,887.12	16,650.70	7,589.09	82.91	80.98	0.01	-9,438.56	2,635.41	1,298.02	1,147.82	150.20	8.642	
18,100.00	8,887.11	16,750.70	7,589.09	83.58	81.66	0.01	-9,538.55	2,635.60	1,298.02	1,146.28	151.74	8.554	
18,200.00	8,887.11	16,850.70	7,589.09	84.25	82.35	0.01	-9,638.55	2,635.80	1,298.02	1,144.74	153.28	8.468	
18,300.00	8,887.10	16,950.70	7,589.08	84.92	83.03	0.01	-9,738.55	2,636.00	1,298.02	1,143.20	154.82	8.384	
18,400.00	8,887.10	17,050.70	7,589.08	85.60	83.72	0.01	-9,838.55	2,636.20	1,298.02	1,141.66	156.36	8.302	
18,500.00	8,887.09	17,150.70	7,589.07	86.27	84.41	0.01	-9,938.55	2,636.39	1,298.02	1,140.12	157.90	8.221	
18,600.00	8,887.09	17,250.70	7,589.07	86.95	85.10	0.01	-10,038.55	2,636.59	1,298.02	1,138.58	159.44	8.141	
18,700.00	8,887.08	17,350.70	7,589.07	87.63	85.79	0.01	-10,138.55	2,636.79	1,298.02	1,137.04	160.98	8.063	
18,800.00	8,887.08	17,450.70	7,589.06	88.31	86.48	0.01	-10,238.55	2,636.99	1,298.02	1,135.49	162.52	7.987	
18,900.00	8,887.07	17,550.70	7,589.06	88.99	87.18	0.01	-10,338.55	2,637.18	1,298.01	1,133.95	164.07	7.912	
19,000.00	8,887.07	17,650.70	7,589.05	89.67	87.87	0.01	-10,438.55	2,637.38	1,298.01	1,132.40	165.61	7.838	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 7H - 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
19,100.00	8,887.06	17,750.70	7,589.05	90.36	88.57	0.01	-10,538.55	2,637.58	1,298.01	1,130.86	167.15	7.765	
19,200.00	8,887.06	17,850.70	7,589.04	91.04	89.27	0.00	-10,638.55	2,637.77	1,298.01	1,129.31	168.70	7.694	
19,300.00	8,887.05	17,950.70	7,589.04	91.73	89.97	0.00	-10,738.55	2,637.97	1,298.01	1,127.77	170.24	7.625	
19,400.00	8,887.05	18,050.70	7,589.04	92.42	90.67	0.00	-10,838.55	2,638.17	1,298.01	1,126.22	171.79	7.556	
19,500.00	8,887.04	18,150.70	7,589.03	93.11	91.37	0.00	-10,938.55	2,638.37	1,298.01	1,124.68	173.33	7.489	
19,600.00	8,887.04	18,250.70	7,589.03	93.80	92.07	0.00	-11,038.55	2,638.56	1,298.01	1,123.13	174.88	7.422	
19,700.00	8,887.03	18,350.70	7,589.02	94.49	92.77	0.00	-11,138.55	2,638.76	1,298.01	1,121.58	176.42	7.357	
19,800.00	8,887.02	18,450.70	7,589.02	95.18	93.48	0.00	-11,238.55	2,638.96	1,298.00	1,120.03	177.97	7.293	
19,900.00	8,887.02	18,550.70	7,589.02	95.87	94.18	0.00	-11,338.55	2,639.16	1,298.00	1,118.49	179.52	7.230	
20,000.00	8,887.01	18,650.70	7,589.01	96.57	94.89	0.00	-11,438.55	2,639.35	1,298.00	1,116.94	181.07	7.169	
20,100.00	8,887.01	18,750.70	7,589.01	97.26	95.59	0.00	-11,538.55	2,639.55	1,298.00	1,115.39	182.61	7.108	
20,200.00	8,887.00	18,850.70	7,589.00	97.96	96.30	0.00	-11,638.55	2,639.75	1,298.00	1,113.84	184.16	7.048	
20,266.44	8,887.00	18,917.14	7,589.00	98.42	96.77	0.00	-11,704.99	2,639.88	1,298.00	1,112.81	185.19	7.009	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD

Offset Well Error: 0.50 usft

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.71	-169.28	-6,150.36	-1,164.90	6,259.90				
100.00	100.00	44.98	44.98	0.28	0.71	-169.27	-6,150.38	-1,164.92	6,259.73	6,258.75	0.99	6,348.974	
200.00	200.00	139.51	139.51	0.63	0.76	-169.27	-6,150.51	-1,165.13	6,259.90	6,258.51	1.39	4,488.276	
300.00	300.00	250.32	250.31	0.99	0.97	-169.26	-6,150.39	-1,166.49	6,260.03	6,258.06	1.97	3,181.406	
400.00	400.00	364.27	364.24	1.35	1.29	-169.24	-6,149.83	-1,168.73	6,259.91	6,257.27	2.64	2,372.520	
500.00	500.00	451.78	451.73	1.71	1.55	-169.22	-6,149.33	-1,170.51	6,259.74	6,256.48	3.26	1,917.613	
600.00	600.00	575.29	575.22	2.07	1.95	-169.20	-6,148.69	-1,172.59	6,259.55	6,255.53	4.02	1,558.075	
700.00	700.00	770.18	770.08	2.43	2.59	-169.19	-6,145.81	-1,173.58	6,257.99	6,252.98	5.02	1,247.045	
800.00	800.00	875.73	875.61	2.79	2.95	-169.18	-6,143.60	-1,173.92	6,256.00	6,250.26	5.73	1,091.424	
900.00	900.00	1,022.01	1,021.84	3.14	3.45	-169.17	-6,139.86	-1,175.02	6,253.61	6,247.03	6.59	949.167	
1,000.00	1,000.00	1,100.00	1,099.78	3.50	3.72	-169.15	-6,137.54	-1,176.18	6,251.00	6,243.78	7.22	866.316	
1,100.00	1,100.00	1,159.09	1,158.84	3.86	3.93	-169.14	-6,136.04	-1,177.36	6,248.90	6,241.12	7.78	803.322	
1,200.00	1,200.00	1,200.00	1,199.73	4.22	4.07	-169.13	-6,135.26	-1,178.30	6,247.57	6,239.29	8.28	754.581	
1,300.00	1,299.98	1,261.45	1,261.16	4.56	4.28	70.92	-6,134.55	-1,179.83	6,246.41	6,237.57	8.84	706.789	
1,400.00	1,399.84	1,300.00	1,299.69	4.90	4.41	70.97	-6,134.41	-1,180.83	6,244.96	6,235.65	9.31	671.046	
1,500.00	1,499.45	1,383.10	1,382.76	5.24	4.70	71.09	-6,134.63	-1,183.11	6,242.92	6,232.99	9.93	628.502	
1,600.00	1,598.70	1,454.44	1,454.07	5.58	4.94	71.23	-6,135.17	-1,185.20	6,240.28	6,229.76	10.52	593.040	
1,700.00	1,697.47	1,530.39	1,529.97	5.93	5.21	71.42	-6,136.04	-1,187.62	6,236.97	6,225.84	11.13	560.267	
1,800.00	1,795.62	1,612.95	1,612.48	6.28	5.50	71.65	-6,137.20	-1,190.34	6,232.89	6,221.12	11.77	529.608	
1,810.29	1,805.68	1,621.72	1,621.25	6.32	5.53	71.55	-6,137.33	-1,190.64	6,232.42	6,220.58	11.84	526.577	
1,900.00	1,893.37	1,700.00	1,699.47	6.63	5.80	71.71	-6,138.58	-1,193.38	6,228.39	6,215.96	12.43	501.259	
2,000.00	1,991.11	1,786.64	1,786.04	6.99	6.10	71.90	-6,140.13	-1,196.25	6,224.13	6,211.05	13.08	475.717	
2,100.00	2,088.85	1,894.15	1,893.51	7.35	6.48	72.11	-6,142.29	-1,198.75	6,219.97	6,206.15	13.82	450.173	
2,200.00	2,186.59	2,024.74	2,024.07	7.72	6.93	72.36	-6,144.88	-1,199.67	6,215.51	6,200.88	14.63	424.783	
2,300.00	2,284.33	2,144.59	2,143.89	8.08	7.34	72.57	-6,147.00	-1,199.11	6,210.66	6,195.25	15.41	402.949	
2,400.00	2,382.07	2,274.63	2,273.87	8.45	7.79	72.79	-6,149.36	-1,196.14	6,205.55	6,189.32	16.23	382.271	
2,500.00	2,479.81	2,358.98	2,358.15	8.82	8.08	72.91	-6,150.95	-1,192.78	6,200.18	6,183.28	16.90	366.911	
2,600.00	2,577.55	2,445.90	2,444.94	9.19	8.39	73.03	-6,153.10	-1,188.61	6,195.22	6,177.64	17.58	352.493	
2,700.00	2,675.29	2,558.22	2,557.15	9.57	8.78	73.20	-6,155.50	-1,184.44	6,190.22	6,171.88	18.34	337.504	
2,800.00	2,773.03	2,670.17	2,669.06	9.94	9.17	73.39	-6,157.21	-1,182.00	6,185.03	6,165.92	19.10	323.757	
2,900.00	2,870.77	2,787.99	2,786.86	10.32	9.58	73.59	-6,158.57	-1,180.07	6,179.65	6,159.76	19.89	310.738	
3,000.00	2,968.51	2,886.51	2,885.36	10.70	9.93	73.76	-6,159.51	-1,178.45	6,174.13	6,153.53	20.60	299.652	
3,100.00	3,066.25	2,984.73	2,983.57	11.07	10.27	73.93	-6,160.43	-1,176.94	6,168.69	6,147.37	21.32	289.318	
3,200.00	3,163.99	3,089.42	3,088.25	11.45	10.63	74.11	-6,161.26	-1,175.76	6,163.25	6,141.19	22.06	279.365	
3,300.00	3,261.73	3,193.74	3,192.56	11.83	10.99	74.30	-6,161.89	-1,174.85	6,157.76	6,134.96	22.80	270.064	
3,400.00	3,359.47	3,276.66	3,275.47	12.21	11.28	74.45	-6,162.46	-1,174.08	6,152.39	6,128.92	23.47	262.162	
3,500.00	3,457.21	3,354.39	3,353.20	12.59	11.55	74.59	-6,163.22	-1,173.38	6,147.37	6,123.25	24.12	254.892	
3,600.00	3,554.95	3,441.96	3,440.75	12.97	11.86	74.75	-6,164.31	-1,172.80	6,142.71	6,117.91	24.80	247.673	
3,700.00	3,652.69	3,546.78	3,545.57	13.35	12.22	74.94	-6,165.46	-1,172.57	6,138.09	6,112.55	25.55	240.276	
3,800.00	3,750.43	3,649.06	3,647.85	13.73	12.58	75.14	-6,166.44	-1,172.47	6,133.43	6,107.15	26.28	233.368	
3,900.00	3,848.17	3,743.03	3,741.81	14.12	12.91	75.31	-6,167.32	-1,172.40	6,128.83	6,101.84	26.99	227.075	
4,000.00	3,945.91	3,835.83	3,834.60	14.50	13.23	75.49	-6,168.26	-1,172.48	6,124.40	6,096.71	27.69	221.139	
4,100.00	4,043.65	3,936.63	3,935.40	14.88	13.58	75.68	-6,169.26	-1,172.63	6,120.04	6,091.61	28.43	215.285	
4,200.00	4,141.39	4,035.10	4,033.86	15.27	13.92	75.87	-6,170.14	-1,172.94	6,115.70	6,086.55	29.15	209.782	
4,300.00	4,239.13	4,130.08	4,128.85	15.65	14.26	76.05	-6,170.99	-1,173.36	6,111.47	6,081.60	29.87	204.628	
4,400.00	4,336.87	4,225.70	4,224.46	16.03	14.59	76.24	-6,171.84	-1,173.92	6,107.34	6,076.75	30.58	199.702	
4,500.00	4,434.61	4,317.37	4,316.12	16.42	14.91	76.42	-6,172.66	-1,174.63	6,103.33	6,072.04	31.29	195.088	
4,600.00	4,532.35	4,400.00	4,398.74	16.80	15.20	76.59	-6,173.55	-1,175.30	6,099.58	6,067.62	31.96	190.869	
4,700.00	4,630.09	4,485.56	4,484.29	17.19	15.50	76.75	-6,174.68	-1,175.97	6,096.12	6,063.48	32.64	186.774	
4,800.00	4,727.83	4,576.33	4,575.05	17.57	15.81	76.93	-6,176.03	-1,176.71	6,092.89	6,059.55	33.34	182.752	
4,900.00	4,825.57	4,670.96	4,669.67	17.96	16.14	77.12	-6,177.51	-1,177.47	6,089.81	6,055.76	34.05	178.829	
5,000.00	4,923.31	4,755.05	4,753.74	18.34	16.44	77.28	-6,178.95	-1,178.06	6,086.91	6,052.17	34.73	175.255	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD

Rule Assigned:

Offset Well Error: 0.50 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	5,021.05	4,835.24	4,833.91	18.73	16.72	77.44	-6,180.61	-1,178.46	6,084.35	6,048.96	35.40	171.895	
5,200.00	5,118.79	4,919.86	4,918.51	19.11	17.01	77.60	-6,182.61	-1,178.88	6,082.13	6,046.06	36.08	168.594	
5,300.00	5,216.53	5,015.06	5,013.68	19.50	17.35	77.78	-6,184.97	-1,179.33	6,080.09	6,043.29	36.79	165.252	
5,400.00	5,314.27	5,108.69	5,107.28	19.89	17.67	77.96	-6,187.39	-1,179.73	6,078.20	6,040.69	37.50	162.065	
5,500.00	5,412.01	5,238.48	5,237.03	20.27	18.13	78.21	-6,190.32	-1,180.12	6,075.99	6,037.65	38.34	158.460	
5,600.00	5,509.75	5,333.46	5,331.99	20.66	18.46	78.39	-6,192.36	-1,180.36	6,073.77	6,034.71	39.06	155.494	
5,700.00	5,607.50	5,429.58	5,428.08	21.05	18.79	78.58	-6,194.41	-1,180.63	6,071.61	6,031.83	39.78	152.620	
5,800.00	5,705.24	5,517.99	5,516.47	21.43	19.10	78.75	-6,196.35	-1,181.05	6,069.65	6,029.17	40.48	149.953	
5,900.00	5,802.98	5,613.86	5,612.32	21.82	19.44	78.93	-6,198.56	-1,181.45	6,067.84	6,026.64	41.20	147.285	
6,000.00	5,900.72	5,709.42	5,707.85	22.21	19.77	79.12	-6,200.82	-1,181.83	6,066.13	6,024.21	41.92	144.715	
6,100.00	5,998.46	5,824.22	5,822.62	22.59	20.17	79.34	-6,203.46	-1,182.27	6,064.45	6,021.75	42.71	142.006	
6,200.00	6,096.20	5,954.01	5,952.39	22.98	20.63	79.58	-6,205.79	-1,182.22	6,062.17	6,018.62	43.55	139.214	
6,300.00	6,193.94	6,054.65	6,053.01	23.37	20.98	79.78	-6,207.54	-1,182.06	6,059.92	6,015.63	44.28	136.843	
6,400.00	6,291.68	6,158.22	6,156.57	23.75	21.34	79.97	-6,209.19	-1,181.90	6,057.59	6,012.56	45.03	134.518	
6,500.00	6,389.42	6,256.52	6,254.86	24.14	21.69	80.16	-6,210.74	-1,181.74	6,055.31	6,009.55	45.76	132.321	
6,600.00	6,487.16	6,353.48	6,351.80	24.53	22.03	80.34	-6,212.26	-1,181.57	6,053.10	6,006.61	46.49	130.209	
6,700.00	6,584.90	6,492.43	6,490.74	24.92	22.51	80.62	-6,214.00	-1,181.72	6,050.80	6,003.45	47.36	127.766	
6,800.00	6,682.64	6,598.32	6,596.62	25.30	22.88	80.84	-6,214.22	-1,183.08	6,047.99	5,999.87	48.11	125.700	
6,900.00	6,780.38	6,679.10	6,677.36	25.69	23.16	81.02	-6,213.93	-1,185.52	6,045.35	5,996.56	48.78	123.918	
7,000.00	6,878.12	6,821.42	6,819.48	26.08	23.66	81.37	-6,212.02	-1,192.81	6,042.68	5,993.01	49.67	121.662	
7,100.00	6,975.86	6,969.78	6,967.72	26.47	24.18	81.72	-6,209.53	-1,198.27	6,039.29	5,988.73	50.57	119.430	
7,200.00	7,073.60	7,091.25	7,089.12	26.86	24.60	82.00	-6,207.02	-1,201.53	6,035.28	5,983.90	51.37	117.477	
7,300.00	7,171.34	7,236.47	7,234.30	27.24	25.11	82.31	-6,204.02	-1,203.10	6,030.76	5,978.50	52.26	115.407	
7,323.61	7,194.42	7,262.57	7,260.39	27.34	25.20	82.36	-6,203.49	-1,203.12	6,029.62	5,977.19	52.44	114.987	
7,400.00	7,269.29	7,342.77	7,340.58	27.63	25.48	82.45	-6,201.87	-1,202.91	6,026.05	5,973.04	53.01	113.683	
7,500.00	7,367.86	7,447.36	7,445.14	28.01	25.84	82.53	-6,199.68	-1,202.64	6,021.76	5,968.02	53.75	112.041	
7,600.00	7,466.96	7,528.49	7,526.26	28.38	26.12	82.56	-6,198.04	-1,202.19	6,017.94	5,963.54	54.40	110.623	
7,700.00	7,566.46	7,600.00	7,597.76	28.74	26.37	82.57	-6,197.25	-1,201.64	6,015.26	5,960.24	55.02	109.338	
7,800.00	7,666.25	7,693.99	7,691.74	29.09	26.69	82.58	-6,196.66	-1,200.51	6,013.37	5,957.68	55.69	107.970	
7,884.06	7,750.27	7,690.00	7,687.75	29.38	26.68	82.56	-6,196.69	-1,200.57	6,012.63	5,956.65	55.98	107.405	
7,900.00	7,766.20	7,690.00	7,687.75	29.43	26.68	82.56	-6,196.69	-1,200.57	6,012.65	5,956.62	56.04	107.298	
7,933.80	7,800.00	7,690.00	7,687.75	29.55	26.68	-157.30	-6,196.69	-1,200.57	6,012.89	5,956.74	56.15	107.087	
8,000.00	7,866.20	7,690.00	7,687.75	29.76	26.68	-157.30	-6,196.69	-1,200.57	6,013.95	5,957.59	56.36	106.705	
8,100.00	7,966.20	7,690.00	7,687.75	30.07	26.68	-157.30	-6,196.69	-1,200.57	6,016.93	5,960.26	56.67	106.177	
8,200.00	8,066.20	7,745.00	7,742.65	30.39	26.78	-157.31	-6,199.41	-1,200.48	6,021.29	5,964.21	57.08	105.495	
8,300.00	8,166.20	7,745.00	7,742.65	30.71	26.78	-157.31	-6,199.41	-1,200.48	6,026.68	5,969.31	57.37	105.055	
8,400.00	8,266.20	7,745.00	7,742.65	31.04	26.78	-157.31	-6,199.41	-1,200.48	6,033.72	5,976.07	57.65	104.669	
8,428.80	8,295.00	7,745.00	7,742.65	31.13	26.78	-157.31	-6,199.41	-1,200.48	6,036.05	5,978.33	57.72	104.568	
8,450.00	8,316.20	7,745.00	7,742.65	31.20	26.78	61.55	-6,199.41	-1,200.48	6,037.67	5,979.89	57.78	104.490	
8,500.00	8,366.02	7,745.00	7,742.65	31.38	26.78	61.32	-6,199.41	-1,200.48	6,040.30	5,982.38	57.93	104.272	
8,550.00	8,415.30	7,745.00	7,742.65	31.56	26.78	61.23	-6,199.41	-1,200.48	6,041.26	5,983.18	58.08	104.016	
8,600.00	8,463.67	7,745.00	7,742.65	31.75	26.78	61.30	-6,199.41	-1,200.48	6,040.53	5,982.29	58.24	103.723	
8,650.00	8,510.75	7,745.00	7,742.65	31.95	26.78	61.51	-6,199.41	-1,200.48	6,038.12	5,979.72	58.40	103.396	
8,700.00	8,556.19	7,745.00	7,742.65	32.16	26.78	61.87	-6,199.41	-1,200.48	6,034.04	5,975.48	58.56	103.037	
8,750.00	8,599.64	7,745.00	7,742.65	32.37	26.78	62.38	-6,199.41	-1,200.48	6,028.33	5,969.60	58.73	102.648	
8,800.00	8,640.77	7,745.00	7,742.65	32.58	26.78	63.03	-6,199.41	-1,200.48	6,021.03	5,962.13	58.90	102.230	
8,850.00	8,679.28	7,761.14	7,758.66	32.80	26.78	63.93	-6,201.46	-1,200.77	6,011.80	5,952.71	59.08	101.751	
8,900.00	8,714.85	7,777.00	7,774.28	33.02	26.78	64.99	-6,204.13	-1,201.24	6,001.61	5,942.34	59.27	101.257	
8,950.00	8,747.24	7,777.00	7,774.28	33.24	26.78	66.11	-6,204.13	-1,201.24	5,989.66	5,930.22	59.44	100.763	
9,000.00	8,776.18	7,777.00	7,774.28	33.45	26.78	67.38	-6,204.13	-1,201.24	5,976.40	5,916.78	59.61	100.250	
9,050.00	8,801.45	7,777.00	7,774.28	33.67	26.78	68.78	-6,204.13	-1,201.24	5,961.90	5,902.12	59.79	99.720	
9,100.00	8,822.88	7,777.00	7,774.28	33.88	26.78	70.32	-6,204.13	-1,201.24	5,946.29	5,886.33	59.96	99.176	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD

Rule Assigned:

Offset Well Error: 0.50 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
9,150.00	8,840.29	7,777.00	7,774.28	34.09	26.78	71.99	-6,204.13	-1,201.24	5,929.66	5,869.53	60.13	98.619	
9,178.80	8,848.43	7,777.00	7,774.28	34.21	26.78	73.01	-6,204.13	-1,201.24	5,919.67	5,859.44	60.22	98.294	
9,200.00	8,853.73	7,777.00	7,774.28	34.30	26.78	73.39	-6,204.13	-1,201.24	5,912.19	5,851.89	60.30	98.054	
9,300.00	8,873.56	7,777.00	7,774.28	34.70	26.78	75.23	-6,204.13	-1,201.24	5,876.43	5,815.80	60.64	96.914	
9,400.00	8,884.77	7,777.00	7,774.28	35.10	26.78	77.13	-6,204.13	-1,201.24	5,840.09	5,779.10	60.98	95.766	
9,478.80	8,887.48	7,777.00	7,774.28	35.42	26.78	78.64	-6,204.13	-1,201.24	5,811.20	5,749.94	61.26	94.860	
9,500.00	8,887.48	7,777.00	7,774.28	35.50	26.78	78.64	-6,204.13	-1,201.24	5,803.45	5,742.11	61.34	94.617	
9,600.00	8,887.48	7,777.00	7,774.28	35.91	26.78	78.64	-6,204.13	-1,201.24	5,767.79	5,706.08	61.71	93.471	
9,700.00	8,887.48	7,777.00	7,774.28	36.33	26.78	78.64	-6,204.13	-1,201.24	5,733.65	5,671.55	62.10	92.329	
9,800.00	8,887.48	7,777.00	7,774.28	36.78	26.78	78.64	-6,204.13	-1,201.24	5,701.07	5,638.55	62.52	91.194	
9,900.00	8,887.48	7,777.00	7,774.28	37.25	26.78	78.64	-6,204.13	-1,201.24	5,670.06	5,607.10	62.95	90.068	
10,000.00	8,887.48	7,777.00	7,774.28	37.74	26.78	78.64	-6,204.13	-1,201.24	5,640.65	5,577.24	63.41	88.953	
10,100.00	8,887.48	7,777.00	7,774.28	38.24	26.78	78.64	-6,204.13	-1,201.24	5,612.87	5,548.98	63.89	87.852	
10,133.80	8,887.48	7,777.00	7,774.28	38.41	26.78	78.64	-6,204.13	-1,201.24	5,603.85	5,539.80	64.06	87.485	
10,200.00	8,887.48	7,777.00	7,774.28	38.76	26.78	78.57	-6,204.13	-1,201.24	5,586.02	5,521.63	64.38	86.761	
10,300.00	8,887.48	7,777.00	7,774.28	39.29	26.78	78.45	-6,204.13	-1,201.24	5,557.72	5,492.83	64.89	85.650	
10,400.00	8,887.48	7,777.00	7,774.28	39.83	26.78	78.33	-6,204.13	-1,201.24	5,527.79	5,462.40	65.40	84.525	
10,500.00	8,887.48	7,777.00	7,774.28	40.37	26.78	78.19	-6,204.13	-1,201.24	5,496.26	5,430.35	65.91	83.389	
10,600.00	8,887.48	7,777.00	7,774.28	40.92	26.78	78.05	-6,204.13	-1,201.24	5,463.11	5,396.69	66.43	82.245	
10,700.00	8,887.48	7,777.00	7,774.28	41.47	26.78	77.89	-6,204.13	-1,201.24	5,428.38	5,361.44	66.94	81.095	
10,800.00	8,887.47	7,777.00	7,774.28	42.02	26.78	77.73	-6,204.13	-1,201.24	5,392.06	5,324.61	67.45	79.942	
10,900.00	8,887.47	7,777.00	7,774.28	42.56	26.78	77.55	-6,204.13	-1,201.24	5,354.18	5,286.22	67.96	78.788	
11,000.00	8,887.47	7,791.85	7,788.79	43.11	26.79	77.54	-6,207.22	-1,201.86	5,314.45	5,245.96	68.49	77.593	
11,100.00	8,887.47	7,793.26	7,790.16	43.65	26.79	77.36	-6,207.54	-1,201.92	5,273.41	5,204.42	68.99	76.437	
11,200.00	8,887.46	7,808.00	7,804.41	44.18	26.79	77.33	-6,211.21	-1,202.73	5,231.07	5,161.56	69.51	75.254	
11,300.00	8,887.46	7,808.00	7,804.41	44.71	26.79	77.11	-6,211.21	-1,202.73	5,186.93	5,116.94	69.99	74.107	
11,400.00	8,887.46	7,808.00	7,804.41	45.22	26.79	76.88	-6,211.21	-1,202.73	5,141.28	5,070.82	70.46	72.966	
11,500.00	8,887.45	7,808.00	7,804.41	45.73	26.79	76.63	-6,211.21	-1,202.73	5,094.15	5,023.23	70.92	71.830	
11,600.00	8,887.45	7,808.00	7,804.41	46.23	26.79	76.37	-6,211.21	-1,202.73	5,045.56	4,974.19	71.36	70.701	
11,700.00	8,887.45	7,808.00	7,804.41	46.72	26.79	76.10	-6,211.21	-1,202.73	4,995.51	4,923.71	71.80	69.578	
11,800.00	8,887.44	7,808.00	7,804.41	47.20	26.79	75.81	-6,211.21	-1,202.73	4,944.02	4,871.81	72.22	68.461	
11,900.00	8,887.44	7,808.00	7,804.41	47.67	26.79	75.50	-6,211.21	-1,202.73	4,891.12	4,818.50	72.62	67.352	
12,000.00	8,887.43	7,808.00	7,804.41	48.13	26.79	75.17	-6,211.21	-1,202.73	4,836.83	4,763.82	73.01	66.249	
12,078.43	8,887.43	7,808.00	7,804.41	48.48	26.79	74.90	-6,211.21	-1,202.73	4,793.29	4,719.98	73.30	65.389	
12,100.00	8,887.43	7,808.00	7,804.41	48.57	26.79	74.90	-6,211.21	-1,202.73	4,781.23	4,707.84	73.38	65.154	
12,200.00	8,887.42	7,808.00	7,804.41	49.01	26.79	74.90	-6,211.21	-1,202.73	4,726.21	4,652.45	73.75	64.080	
12,300.00	8,887.42	7,808.00	7,804.41	49.47	26.79	74.90	-6,211.21	-1,202.73	4,672.68	4,598.55	74.13	63.034	
12,400.00	8,887.41	7,808.00	7,804.41	49.92	26.79	74.90	-6,211.21	-1,202.73	4,620.70	4,546.19	74.51	62.016	
12,500.00	8,887.41	7,808.00	7,804.41	50.39	26.79	74.90	-6,211.21	-1,202.73	4,570.31	4,495.42	74.89	61.026	
12,600.00	8,887.40	7,824.99	7,820.64	50.86	26.79	75.13	-6,216.09	-1,203.90	4,521.24	4,445.90	75.33	60.015	
12,700.00	8,887.40	7,840.00	7,834.78	51.34	26.80	75.34	-6,220.98	-1,205.16	4,474.25	4,398.48	75.78	59.046	
12,800.00	8,887.39	7,840.00	7,834.78	51.82	26.80	75.34	-6,220.98	-1,205.16	4,428.76	4,352.59	76.17	58.146	
12,900.00	8,887.39	7,840.00	7,834.78	52.31	26.80	75.34	-6,220.98	-1,205.16	4,385.07	4,308.51	76.56	57.279	
13,000.00	8,887.38	7,840.00	7,834.78	52.81	26.80	75.34	-6,220.98	-1,205.16	4,343.25	4,266.30	76.95	56.445	
13,100.00	8,887.37	7,840.00	7,834.78	53.31	26.80	75.34	-6,220.98	-1,205.16	4,303.34	4,226.01	77.33	55.647	
13,200.00	8,887.37	7,840.00	7,834.78	53.82	26.80	75.34	-6,220.98	-1,205.16	4,265.41	4,187.69	77.72	54.884	
13,300.00	8,887.36	7,840.00	7,834.78	54.34	26.80	75.34	-6,220.98	-1,205.16	4,229.50	4,151.40	78.10	54.157	
13,400.00	8,887.36	7,872.00	7,864.32	54.86	26.80	75.76	-6,232.85	-1,208.35	4,195.54	4,116.93	78.61	53.371	
13,500.00	8,887.35	7,872.00	7,864.32	55.38	26.80	75.76	-6,232.85	-1,208.35	4,163.55	4,084.57	78.98	52.715	
13,600.00	8,887.35	7,872.00	7,864.32	55.91	26.80	75.76	-6,232.85	-1,208.35	4,133.73	4,054.39	79.35	52.098	
13,700.00	8,887.34	7,872.00	7,864.32	56.45	26.80	75.76	-6,232.85	-1,208.35	4,106.13	4,026.43	79.70	51.520	
13,800.00	8,887.34	7,885.41	7,876.48	56.99	26.81	75.94	-6,238.30	-1,209.86	4,080.67	4,000.56	80.11	50.939	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD

Rule Assigned:

Offset Well Error: 0.50 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
13,900.00	8,887.33	7,904.00	7,893.15	57.54	26.81	76.18	-6,246.18	-1,212.21	4,057.56	3,977.02	80.54	50.382	
14,000.00	8,887.33	7,904.00	7,893.15	58.09	26.81	76.18	-6,246.18	-1,212.21	4,036.55	3,955.69	80.86	49.920	
14,100.00	8,887.32	7,913.92	7,901.98	58.64	26.81	76.31	-6,250.51	-1,213.54	4,017.89	3,936.66	81.22	49.468	
14,200.00	8,887.32	7,935.00	7,920.63	59.20	26.82	76.58	-6,259.89	-1,216.42	4,001.45	3,919.82	81.63	49.018	
14,300.00	8,887.31	7,935.00	7,920.63	59.77	26.82	76.58	-6,259.89	-1,216.42	3,987.33	3,905.41	81.91	48.677	
14,400.00	8,887.31	7,967.00	7,948.61	60.34	26.83	76.99	-6,274.67	-1,221.19	3,975.52	3,893.16	82.36	48.268	
14,500.00	8,887.30	7,967.00	7,948.61	60.91	26.83	76.99	-6,274.67	-1,221.19	3,965.98	3,883.36	82.61	48.006	
14,600.00	8,887.30	7,967.00	7,948.61	61.49	26.83	76.99	-6,274.67	-1,221.19	3,958.94	3,876.09	82.85	47.786	
14,700.00	8,887.29	7,984.91	7,963.98	62.07	26.83	77.22	-6,283.36	-1,224.18	3,954.21	3,871.04	83.17	47.543	
14,800.00	8,887.29	7,999.00	7,975.87	62.65	26.84	77.39	-6,290.47	-1,226.72	3,951.94	3,868.49	83.46	47.354	
14,844.67	8,887.28	7,999.00	7,975.87	62.91	26.84	77.39	-6,290.47	-1,226.72	3,951.69	3,868.15	83.54	47.305	CC, ES
14,900.00	8,887.28	7,999.00	7,975.87	63.24	26.84	77.39	-6,290.47	-1,226.72	3,952.08	3,868.45	83.63	47.256	
15,000.00	8,887.28	7,999.00	7,975.87	63.83	26.84	77.39	-6,290.47	-1,226.72	3,954.74	3,870.96	83.78	47.201	
15,100.00	8,887.27	8,031.00	8,002.16	64.43	26.85	77.79	-6,307.48	-1,233.30	3,959.68	3,875.54	84.14	47.061	
15,200.00	8,887.27	8,031.00	8,002.16	65.03	26.85	77.79	-6,307.48	-1,233.30	3,966.95	3,882.70	84.25	47.083	
15,300.00	8,887.26	8,031.00	8,002.16	65.63	26.85	77.79	-6,307.48	-1,233.30	3,976.73	3,892.38	84.35	47.147	
15,400.00	8,887.25	8,047.47	8,015.24	66.24	26.86	77.98	-6,316.72	-1,237.16	3,988.80	3,904.25	84.54	47.180	
15,500.00	8,887.25	8,062.00	8,026.47	66.85	26.87	78.15	-6,325.18	-1,240.82	4,003.23	3,918.52	84.71	47.259	
15,600.00	8,887.24	8,062.00	8,026.47	67.46	26.87	78.15	-6,325.18	-1,240.82	4,019.95	3,935.20	84.74	47.437	
15,700.00	8,887.24	8,078.21	8,038.67	68.07	26.88	78.34	-6,334.92	-1,245.19	4,038.88	3,953.99	84.89	47.578	
15,800.00	8,887.23	8,094.00	8,050.23	68.69	26.90	78.52	-6,344.66	-1,249.75	4,060.08	3,975.06	85.02	47.756	
15,900.00	8,887.23	8,094.00	8,050.23	69.31	26.90	78.52	-6,344.66	-1,249.75	4,083.44	3,998.45	84.99	48.044	
16,000.00	8,887.22	8,126.00	8,072.66	69.94	26.94	78.86	-6,365.15	-1,259.78	4,108.94	4,023.70	85.24	48.205	
16,100.00	8,887.22	8,126.00	8,072.66	70.56	26.94	78.86	-6,365.15	-1,259.78	4,136.37	4,051.18	85.18	48.557	
16,200.00	8,887.21	8,143.31	8,084.18	71.19	26.97	79.04	-6,376.68	-1,265.61	4,165.86	4,080.58	85.28	48.851	
16,300.00	8,887.21	8,158.00	8,093.58	71.83	26.99	79.19	-6,386.71	-1,270.77	4,197.28	4,111.95	85.33	49.186	
16,400.00	8,887.20	8,158.00	8,093.58	72.46	26.99	79.19	-6,386.71	-1,270.77	4,230.72	4,145.48	85.24	49.636	
16,500.00	8,887.20	9,327.45	8,285.98	73.10	34.64	82.51	-7,463.00	-1,569.09	4,264.64	4,163.85	100.79	42.313	
16,600.00	8,887.19	9,498.09	8,290.20	73.74	36.42	82.60	-7,632.60	-1,587.31	4,275.06	4,171.47	103.59	41.269	
16,700.00	8,887.19	9,578.00	8,291.87	74.38	37.29	82.64	-7,712.10	-1,595.28	4,284.90	4,179.86	105.04	40.793	
16,800.00	8,887.18	9,612.43	8,292.81	75.02	37.68	82.66	-7,746.29	-1,599.20	4,295.87	4,190.09	105.78	40.612	
16,900.00	8,887.18	9,664.17	8,294.52	75.67	38.27	82.69	-7,797.59	-1,605.74	4,308.14	4,201.34	106.80	40.340	
17,000.00	8,887.17	9,812.50	8,298.67	76.32	40.01	82.78	-7,944.67	-1,624.54	4,320.67	4,211.20	109.47	39.469	
17,100.00	8,887.17	9,927.17	8,300.79	76.97	41.41	82.83	-8,058.55	-1,637.72	4,332.01	4,220.40	111.61	38.813	
17,200.00	8,887.16	10,047.06	8,301.39	77.62	42.90	82.86	-8,177.70	-1,650.98	4,343.13	4,229.25	113.88	38.139	
17,300.00	8,887.16	10,151.00	8,300.74	78.28	44.22	82.87	-8,281.07	-1,661.89	4,353.80	4,237.91	115.89	37.568	
17,400.00	8,887.15	10,192.76	8,300.35	78.93	44.76	82.87	-8,322.57	-1,666.54	4,365.15	4,248.33	116.82	37.367	
17,500.00	8,887.14	10,234.69	8,300.09	79.59	45.31	82.88	-8,364.17	-1,671.78	4,377.81	4,260.07	117.74	37.182	
17,600.00	8,887.14	10,278.00	8,300.13	80.25	45.88	82.89	-8,407.06	-1,677.80	4,391.75	4,273.07	118.68	37.005	
17,700.00	8,887.13	10,354.35	8,300.44	80.91	46.89	82.91	-8,482.56	-1,689.11	4,406.59	4,286.34	120.24	36.647	
17,800.00	8,887.13	10,852.00	8,302.00	81.58	53.69	83.01	-8,977.29	-1,737.15	4,412.90	4,283.28	129.62	34.045	
17,900.00	8,887.12	10,872.97	8,301.83	82.24	53.98	83.01	-8,998.20	-1,738.67	4,420.00	4,289.72	130.28	33.926	
18,000.00	8,887.12	10,916.00	8,302.05	82.91	54.59	83.02	-9,041.08	-1,742.40	4,428.60	4,297.27	131.33	33.722	
18,100.00	8,887.11	11,044.15	8,302.83	83.58	56.41	83.05	-9,168.68	-1,754.06	4,437.84	4,303.88	133.96	33.128	
18,200.00	8,887.11	11,107.00	8,302.39	84.25	57.30	83.05	-9,231.30	-1,759.49	4,446.71	4,311.33	135.38	32.846	
18,300.00	8,887.10	11,152.31	8,302.00	84.92	57.96	83.05	-9,276.40	-1,763.85	4,456.61	4,320.15	136.47	32.657	
18,400.00	8,887.10	11,201.74	8,301.80	85.60	58.67	83.06	-9,325.53	-1,769.31	4,467.77	4,330.15	137.62	32.465	
18,500.00	8,887.09	11,279.63	8,302.04	86.27	59.80	83.08	-9,402.85	-1,778.67	4,479.81	4,340.49	139.33	32.153	
18,600.00	8,887.09	11,380.73	8,301.38	86.95	61.28	83.09	-9,503.25	-1,790.52	4,491.71	4,350.21	141.50	31.744	
18,700.00	8,887.08	11,425.00	8,301.16	87.63	61.93	83.09	-9,547.17	-1,796.08	4,504.42	4,361.88	142.54	31.600	
18,800.00	8,887.08	11,515.77	8,300.88	88.31	63.27	83.11	-9,637.19	-1,807.63	4,517.32	4,372.80	144.52	31.257	
18,900.00	8,887.07	11,552.00	8,300.78	88.99	63.81	83.11	-9,673.06	-1,812.76	4,531.54	4,386.15	145.39	31.169	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD

Rule Assigned:

Offset Well Error: 0.50 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
19,000.00	8,887.07	12,060.00	8,307.48	89.67	71.40	83.28	-10,177.46	-1,867.65	4,543.80	4,388.17	155.63	29.196	
19,100.00	8,887.06	12,123.00	8,306.21	90.36	72.34	83.27	-10,240.34	-1,871.38	4,550.12	4,392.98	157.14	28.956	
19,200.00	8,887.06	12,187.00	8,304.09	91.04	73.31	83.25	-10,304.15	-1,875.84	4,557.49	4,398.83	158.66	28.725	
19,300.00	8,887.05	12,224.43	8,302.60	91.73	73.87	83.24	-10,341.44	-1,878.76	4,565.76	4,406.10	159.66	28.597	
19,400.00	8,887.05	12,271.73	8,300.50	92.42	74.59	83.22	-10,388.50	-1,882.93	4,575.23	4,414.40	160.83	28.448	
19,500.00	8,887.04	12,325.42	8,298.72	93.11	75.40	83.20	-10,441.89	-1,888.34	4,585.78	4,423.66	162.11	28.288	
19,600.00	8,887.04	12,425.31	8,300.22	93.80	76.93	83.24	-10,541.13	-1,899.52	4,596.91	4,432.56	164.35	27.971	
19,700.00	8,887.03	12,532.81	8,302.72	94.49	78.58	83.29	-10,647.96	-1,911.21	4,607.61	4,440.87	166.74	27.633	
19,800.00	8,887.02	12,610.61	8,303.33	95.18	79.77	83.31	-10,725.28	-1,919.78	4,618.65	4,450.12	168.53	27.405	
19,900.00	8,887.02	12,893.64	8,305.78	95.87	84.13	83.38	-11,007.00	-1,946.48	4,628.35	4,453.91	174.43	26.534	
20,000.00	8,887.01	13,022.11	8,305.14	96.57	86.11	83.38	-11,135.14	-1,955.51	4,635.63	4,458.40	177.23	26.156	
20,100.00	8,887.01	13,110.51	8,306.41	97.26	87.48	83.41	-11,223.33	-1,961.38	4,642.27	4,463.00	179.27	25.896	
20,200.00	8,887.00	13,228.18	8,305.95	97.96	89.30	83.41	-11,340.73	-1,969.41	4,649.33	4,467.46	181.87	25.565	
20,266.44	8,887.00	13,300.17	8,304.63	98.42	90.42	83.40	-11,412.57	-1,973.83	4,653.64	4,470.17	183.47	25.365	SF

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 89-MWD+HRGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	29.71	3,824.98	2,182.73	4,404.00				
100.00	100.00	54.42	54.42	0.28	0.51	29.71	3,825.15	2,182.74	4,404.18	4,403.40	0.78	5,637.302	
200.00	200.00	143.01	143.00	0.63	0.59	29.71	3,825.96	2,182.84	4,405.01	4,403.79	1.22	3,603.489	
300.00	300.00	246.78	246.77	0.99	0.84	29.70	3,826.71	2,183.10	4,405.76	4,403.93	1.84	2,398.330	
400.00	400.00	384.82	384.81	1.35	1.27	29.71	3,827.25	2,183.72	4,406.41	4,403.80	2.62	1,683.117	
499.25	499.25	479.26	479.25	1.71	1.57	29.71	3,826.75	2,184.07	4,406.15	4,402.87	3.28	1,343.619	
500.00	500.00	479.81	479.80	1.71	1.57	29.72	3,826.75	2,184.07	4,406.15	4,402.87	3.28	1,341.773	
600.00	600.00	562.21	562.20	2.07	1.85	29.72	3,826.84	2,184.33	4,406.39	4,402.47	3.92	1,123.974	
700.00	700.00	657.65	657.64	2.43	2.18	29.72	3,827.28	2,184.50	4,406.88	4,402.28	4.61	956.393	
800.00	800.00	750.14	750.12	2.79	2.50	29.71	3,827.83	2,184.59	4,407.45	4,402.16	5.29	833.535	
900.00	900.00	846.34	846.32	3.14	2.84	29.71	3,828.65	2,184.59	4,408.19	4,402.21	5.98	736.889	
1,000.00	1,000.00	935.31	935.28	3.50	3.15	29.70	3,829.56	2,184.56	4,409.06	4,402.41	6.65	662.754	
1,100.00	1,100.00	1,040.55	1,040.52	3.86	3.52	29.69	3,830.96	2,184.24	4,410.07	4,402.69	7.38	597.520	
1,200.00	1,200.00	1,146.39	1,146.35	4.22	3.89	29.68	3,832.20	2,183.88	4,410.92	4,402.81	8.11	543.776	
1,300.00	1,299.98	1,289.53	1,289.48	4.56	4.39	-90.36	3,833.07	2,183.07	4,411.16	4,402.21	8.95	492.600	
1,400.00	1,399.84	1,397.62	1,397.57	4.90	4.76	-90.45	3,833.11	2,182.20	4,410.83	4,401.17	9.66	456.605	
1,500.00	1,499.45	1,489.32	1,489.26	5.24	5.08	-90.57	3,833.19	2,181.45	4,410.58	4,400.27	10.32	427.577	
1,600.00	1,598.70	1,616.68	1,616.59	5.58	5.52	-90.82	3,833.95	2,178.51	4,410.10	4,399.00	11.10	397.231	
1,700.00	1,697.47	1,708.16	1,707.97	5.93	5.84	-91.07	3,835.32	2,174.53	4,409.55	4,397.78	11.77	374.634	
1,800.00	1,795.62	1,799.38	1,799.10	6.28	6.16	-91.35	3,836.75	2,170.88	4,409.38	4,396.94	12.44	354.365	
1,807.71	1,803.16	1,807.29	1,807.01	6.31	6.19	-91.47	3,836.86	2,170.59	4,409.38	4,396.88	12.50	352.803	
1,810.29	1,805.68	1,809.93	1,809.65	6.32	6.20	-91.51	3,836.90	2,170.50	4,409.38	4,396.86	12.52	352.284	
1,900.00	1,893.37	1,888.04	1,887.71	6.63	6.48	-91.76	3,837.87	2,167.85	4,409.47	4,396.36	13.11	336.302	
2,000.00	1,991.11	1,958.95	1,958.57	6.99	6.73	-91.99	3,839.09	2,165.50	4,410.14	4,396.42	13.72	321.391	
2,100.00	2,088.85	2,032.00	2,031.57	7.35	6.99	-92.22	3,840.76	2,163.48	4,411.63	4,397.28	14.34	307.565	
2,200.00	2,186.59	2,107.17	2,106.70	7.72	7.26	-92.46	3,842.59	2,162.03	4,413.76	4,398.78	14.98	294.726	
2,300.00	2,284.33	2,188.10	2,187.57	8.08	7.55	-92.71	3,844.97	2,160.11	4,416.30	4,400.67	15.63	282.531	
2,400.00	2,382.07	2,294.12	2,293.34	8.45	7.93	-93.09	3,849.79	2,154.68	4,419.17	4,402.78	16.38	269.771	
2,500.00	2,479.81	2,385.38	2,384.41	8.82	8.26	-93.41	3,853.57	2,150.41	4,422.05	4,404.97	17.08	258.911	
2,600.00	2,577.55	2,478.00	2,476.97	9.19	8.59	-93.70	3,856.32	2,148.39	4,425.13	4,407.34	17.78	248.844	
2,700.00	2,675.29	2,563.57	2,562.42	9.57	8.90	-93.99	3,859.53	2,145.44	4,428.51	4,410.04	18.46	239.860	
2,800.00	2,773.03	2,654.90	2,653.41	9.94	9.23	-94.33	3,864.58	2,139.53	4,432.32	4,413.15	19.17	231.241	
2,900.00	2,870.77	2,760.68	2,758.73	10.32	9.62	-94.74	3,870.77	2,131.73	4,436.23	4,416.31	19.93	222.603	
3,000.00	2,968.51	2,840.00	2,837.68	10.70	9.91	-95.05	3,875.43	2,125.61	4,440.28	4,419.69	20.59	215.619	
3,100.00	3,066.25	2,890.45	2,887.83	11.07	10.09	-95.25	3,878.90	2,121.45	4,445.23	4,424.08	21.15	210.179	
3,200.00	3,163.99	2,929.00	2,926.09	11.45	10.24	-95.41	3,882.16	2,118.04	4,451.52	4,429.86	21.66	205.535	
3,300.00	3,261.73	3,007.51	3,003.81	11.83	10.53	-95.76	3,889.92	2,110.08	4,458.77	4,436.44	22.32	199.729	
3,400.00	3,359.47	3,100.92	3,096.04	12.21	10.88	-96.18	3,900.06	2,099.28	4,466.56	4,443.51	23.05	193.758	
3,500.00	3,457.21	3,198.00	3,191.91	12.59	11.25	-96.62	3,910.33	2,087.95	4,474.37	4,450.57	23.80	188.015	
3,600.00	3,554.95	3,261.28	3,254.33	12.97	11.50	-96.92	3,917.32	2,080.30	4,482.78	4,458.37	24.41	183.655	
3,700.00	3,652.69	3,310.81	3,303.05	13.35	11.69	-97.15	3,923.50	2,073.87	4,492.36	4,467.39	24.96	179.969	
3,800.00	3,750.43	3,376.00	3,366.99	13.73	11.95	-97.47	3,932.61	2,065.05	4,503.23	4,477.65	25.58	176.041	
3,900.00	3,848.17	3,451.32	3,440.76	14.12	12.24	-97.84	3,943.64	2,054.55	4,514.91	4,488.67	26.24	172.034	
4,000.00	3,945.91	3,573.09	3,560.11	14.50	12.73	-98.43	3,960.80	2,037.56	4,526.52	4,499.41	27.11	166.956	
4,100.00	4,043.65	3,719.76	3,704.19	14.88	13.32	-99.13	3,979.68	2,017.67	4,537.45	4,509.36	28.09	161.536	
4,200.00	4,141.39	12,454.96	8,406.10	15.27	67.06	-65.84	-281.84	1,959.41	4,528.71	4,481.19	47.51	95.314	
4,300.00	4,239.13	12,483.00	8,406.46	15.65	67.42	-64.26	-309.87	1,958.73	4,430.48	4,382.48	47.99	92.317	
4,400.00	4,336.87	12,483.00	8,406.46	16.03	67.42	-64.26	-309.87	1,958.73	4,332.13	4,283.87	48.26	89.765	
4,500.00	4,434.61	12,483.00	8,406.46	16.42	67.42	-64.26	-309.87	1,958.73	4,233.87	4,185.33	48.54	87.227	
4,600.00	4,532.35	12,483.00	8,406.46	16.80	67.42	-64.26	-309.87	1,958.73	4,135.68	4,086.86	48.83	84.703	
4,700.00	4,630.09	12,483.00	8,406.46	17.19	67.42	-64.26	-309.87	1,958.73	4,037.59	3,988.47	49.12	82.192	
4,800.00	4,727.83	12,492.35	8,406.61	17.57	67.54	-63.71	-319.22	1,958.54	3,939.58	3,890.07	49.51	79.578	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 89-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,825.57	12,503.26	8,406.78	17.96	67.68	-63.06	-330.13	1,958.32	3,841.64	3,791.73	49.91	76.969	
5,000.00	4,923.31	12,514.20	8,406.95	18.34	67.82	-62.40	-341.06	1,958.11	3,743.77	3,693.44	50.33	74.385	
5,100.00	5,021.05	12,525.16	8,407.12	18.73	67.97	-61.73	-352.01	1,957.90	3,645.99	3,595.23	50.76	71.826	
5,200.00	5,118.79	12,536.14	8,407.30	19.11	68.11	-61.05	-362.99	1,957.70	3,548.29	3,497.08	51.21	69.292	
5,300.00	5,216.53	12,547.14	8,407.47	19.50	68.25	-60.36	-373.99	1,957.51	3,450.69	3,399.02	51.67	66.783	
5,400.00	5,314.27	12,558.16	8,407.64	19.89	68.39	-59.65	-385.01	1,957.33	3,353.18	3,301.04	52.15	64.301	
5,500.00	5,412.01	12,572.00	8,407.86	20.27	68.57	-58.75	-398.84	1,957.10	3,255.79	3,203.13	52.67	61.818	
5,600.00	5,509.75	12,582.13	8,408.02	20.66	68.70	-58.07	-408.97	1,956.95	3,158.52	3,105.34	53.18	59.396	
5,700.00	5,607.50	12,595.53	8,408.21	21.05	68.88	-57.17	-422.37	1,956.74	3,061.37	3,007.64	53.73	56.972	
5,800.00	5,705.24	12,608.79	8,408.40	21.43	69.05	-56.26	-435.63	1,956.55	2,964.36	2,910.05	54.31	54.577	
5,900.00	5,802.98	12,621.90	8,408.57	21.82	69.22	-55.34	-448.73	1,956.37	2,867.50	2,812.58	54.92	52.213	
6,000.00	5,900.72	12,634.85	8,408.73	22.21	69.39	-54.42	-461.69	1,956.19	2,770.81	2,715.26	55.55	49.878	
6,100.00	5,998.46	12,647.67	8,408.88	22.59	69.56	-53.50	-474.50	1,956.03	2,674.31	2,618.10	56.22	47.572	
6,200.00	6,096.20	12,660.34	8,409.02	22.98	69.72	-52.57	-487.17	1,955.87	2,578.02	2,521.11	56.91	45.297	
6,300.00	6,193.94	12,673.12	8,409.15	23.37	69.89	-51.62	-499.95	1,955.71	2,481.96	2,424.31	57.65	43.050	
6,400.00	6,291.68	12,685.79	8,409.27	23.75	70.05	-50.67	-512.62	1,955.55	2,386.17	2,327.73	58.43	40.835	
6,500.00	6,389.42	12,698.35	8,409.39	24.14	70.22	-49.71	-525.17	1,955.39	2,290.67	2,231.40	59.27	38.651	
6,600.00	6,487.16	12,710.79	8,409.50	24.53	70.38	-48.75	-537.61	1,955.23	2,195.51	2,135.36	60.15	36.499	
6,700.00	6,584.90	12,723.12	8,409.60	24.92	70.54	-47.78	-549.94	1,955.06	2,100.73	2,039.63	61.10	34.380	
6,800.00	6,682.64	12,735.33	8,409.70	25.30	70.70	-46.81	-562.15	1,954.90	2,006.39	1,944.27	62.12	32.296	
6,900.00	6,780.38	12,747.44	8,409.78	25.69	70.86	-45.84	-574.25	1,954.73	1,912.56	1,849.33	63.23	30.248	
7,000.00	6,878.12	12,759.26	8,409.86	26.08	71.01	-44.88	-586.07	1,954.57	1,819.31	1,754.88	64.43	28.238	
7,100.00	6,975.86	12,770.83	8,409.93	26.47	71.16	-43.94	-597.64	1,954.42	1,726.74	1,661.01	65.73	26.269	
7,200.00	7,073.60	12,782.20	8,409.98	26.86	71.31	-43.00	-609.02	1,954.29	1,634.97	1,567.81	67.17	24.343	
7,300.00	7,171.34	12,793.40	8,410.02	27.24	71.46	-42.07	-620.21	1,954.18	1,544.15	1,475.41	68.74	22.463	
7,323.61	7,194.42	12,796.02	8,410.02	27.34	71.49	-41.85	-622.83	1,954.15	1,522.86	1,453.72	69.14	22.026	
7,400.00	7,269.29	12,803.91	8,410.04	27.63	71.59	-39.24	-630.72	1,954.08	1,454.80	1,384.29	70.51	20.632	
7,500.00	7,367.86	12,812.57	8,410.05	28.01	71.71	-36.42	-639.38	1,954.01	1,368.19	1,295.64	72.55	18.857	
7,600.00	7,466.96	12,819.35	8,410.06	28.38	71.80	-34.17	-646.16	1,953.96	1,285.06	1,210.15	74.91	17.154	
7,700.00	7,566.46	12,824.29	8,410.06	28.74	71.86	-32.39	-651.10	1,953.92	1,206.27	1,128.66	77.61	15.543	
7,800.00	7,666.25	12,827.43	8,410.06	29.09	71.90	-31.02	-654.24	1,953.90	1,132.84	1,052.18	80.66	14.044	
7,900.00	7,766.20	12,828.81	8,410.06	29.43	71.92	-30.01	-655.62	1,953.89	1,066.02	981.98	84.04	12.685	
7,933.80	7,800.00	12,828.88	8,410.06	29.55	71.92	90.39	-655.69	1,953.89	1,045.17	959.93	85.24	12.262	
8,000.00	7,866.20	12,828.84	8,410.06	29.76	71.92	90.39	-655.65	1,953.89	1,006.65	919.01	87.64	11.486	
8,100.00	7,966.20	12,828.78	8,410.06	30.07	71.92	90.38	-655.59	1,953.89	954.24	862.92	91.32	10.450	
8,200.00	8,066.20	12,828.71	8,410.06	30.39	71.92	90.38	-655.53	1,953.89	909.83	814.94	94.89	9.588	
8,300.00	8,166.20	12,828.65	8,410.06	30.71	71.92	90.38	-655.46	1,953.89	874.66	776.53	98.13	8.913	
8,400.00	8,266.20	12,828.59	8,410.06	31.04	71.92	90.37	-655.41	1,953.89	849.86	749.09	100.77	8.434	
8,428.80	8,295.00	12,828.58	8,410.06	31.13	71.92	90.37	-655.39	1,953.89	844.78	743.40	101.38	8.333	
8,450.00	8,316.20	12,828.85	8,410.06	31.20	71.92	-50.88	-655.66	1,953.89	841.40	739.62	101.78	8.267	
8,500.00	8,366.02	12,831.71	8,410.05	31.38	71.96	-51.29	-658.52	1,953.87	833.57	730.97	102.61	8.124	
8,550.00	8,415.30	12,840.00	8,410.04	31.56	72.07	-51.32	-666.81	1,953.83	825.95	722.69	103.26	7.999	
8,600.00	8,463.67	12,847.04	8,410.03	31.75	72.16	-51.43	-673.85	1,953.79	818.52	714.88	103.63	7.898	
8,650.00	8,510.75	12,859.77	8,410.01	31.95	72.33	-51.13	-686.58	1,953.73	811.22	707.39	103.83	7.813	
8,700.00	8,556.19	12,875.62	8,409.99	32.16	72.53	-50.62	-702.43	1,953.65	803.98	700.16	103.82	7.744	
8,750.00	8,599.64	12,894.48	8,409.98	32.37	72.78	-49.93	-721.29	1,953.57	796.66	693.04	103.62	7.688	
8,800.00	8,640.77	12,916.21	8,409.97	32.58	73.07	-49.09	-743.02	1,953.48	789.11	685.88	103.23	7.644	
8,850.00	8,679.28	12,940.13	8,409.96	32.80	73.38	-48.17	-766.94	1,953.40	781.14	678.47	102.67	7.608	
8,900.00	8,714.85	12,965.81	8,409.92	33.02	73.72	-47.21	-792.62	1,953.35	772.59	670.63	101.96	7.577	
8,950.00	8,747.24	12,993.64	8,409.84	33.24	74.09	-46.21	-820.45	1,953.34	763.28	662.16	101.12	7.548	
9,000.00	8,776.18	13,023.31	8,409.70	33.45	74.48	-45.21	-850.12	1,953.37	753.00	652.82	100.18	7.516	
9,050.00	8,801.45	13,054.28	8,409.55	33.67	74.89	-44.27	-881.09	1,953.51	741.57	642.41	99.16	7.478	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 89-MWD+HRGM

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.00	8,822.88	13,087.00	8,409.42	33.88	75.32	-43.38	-913.80	1,953.80	728.81	630.72	98.09	7.430	
9,150.00	8,840.29	13,121.52	8,409.30	34.09	75.78	-42.56	-948.32	1,954.27	714.52	617.51	97.01	7.365	
9,178.80	8,848.43	13,142.30	8,409.27	34.21	76.05	-42.13	-969.10	1,954.63	705.51	609.11	96.40	7.319	
9,200.00	8,853.73	13,157.82	8,409.26	34.30	76.26	-41.58	-984.62	1,954.93	698.62	602.68	95.94	7.282	
9,300.00	8,873.56	13,231.51	8,409.49	34.70	77.24	-39.02	-1,058.28	1,956.87	665.17	571.55	93.62	7.105	
9,400.00	8,884.77	13,295.00	8,409.82	35.10	78.09	-37.00	-1,121.74	1,958.97	629.79	538.92	90.87	6.931	
9,478.80	8,887.48	13,295.00	8,409.82	35.42	78.09	-37.81	-1,121.74	1,958.97	604.66	517.20	87.46	6.913	SF
9,500.00	8,887.48	13,295.00	8,409.82	35.50	78.09	-37.81	-1,121.74	1,958.97	598.93	512.47	86.46	6.927	
9,600.00	8,887.48	13,295.00	8,409.82	35.91	78.09	-37.81	-1,121.74	1,958.97	581.63	500.39	81.24	7.159	ES
9,652.14	8,887.48	13,295.00	8,409.82	36.13	78.09	-37.81	-1,121.74	1,958.97	579.28	500.95	78.34	7.395	CC
9,700.00	8,887.48	13,295.00	8,409.82	36.33	78.09	-37.81	-1,121.74	1,958.97	581.26	505.56	75.70	7.678	
9,800.00	8,887.48	13,295.00	8,409.82	36.78	78.09	-37.81	-1,121.74	1,958.97	597.86	527.10	70.76	8.449	
9,900.00	8,887.48	13,295.00	8,409.82	37.25	78.09	-37.81	-1,121.74	1,958.97	630.09	562.90	67.18	9.378	
10,000.00	8,887.48	13,295.00	8,409.82	37.74	78.09	-37.81	-1,121.74	1,958.97	675.71	610.41	65.29	10.349	
10,100.00	8,887.48	13,295.00	8,409.82	38.24	78.09	-37.81	-1,121.74	1,958.97	732.22	667.33	64.89	11.283	
10,133.80	8,887.48	13,295.00	8,409.82	38.41	78.09	-37.81	-1,121.74	1,958.97	753.37	688.35	65.02	11.587	
10,200.00	8,887.48	13,295.00	8,409.82	38.76	78.09	-36.86	-1,121.74	1,958.97	797.66	732.14	65.52	12.174	
10,300.00	8,887.48	13,295.00	8,409.82	39.29	78.09	-35.11	-1,121.74	1,958.97	870.99	804.34	66.65	13.068	
10,400.00	8,887.48	13,295.00	8,409.82	39.83	78.09	-32.94	-1,121.74	1,958.97	950.38	882.48	67.90	13.996	
10,500.00	8,887.48	13,295.00	8,409.82	40.37	78.09	-30.30	-1,121.74	1,958.97	1,034.36	965.28	69.08	14.972	
10,600.00	8,887.48	13,295.00	8,409.82	40.92	78.09	-27.13	-1,121.74	1,958.97	1,121.80	1,051.69	70.11	16.001	
10,700.00	8,887.48	13,295.00	8,409.82	41.47	78.09	-23.38	-1,121.74	1,958.97	1,211.86	1,140.92	70.95	17.081	
10,800.00	8,887.47	13,295.00	8,409.82	42.02	78.09	-18.98	-1,121.74	1,958.97	1,303.90	1,232.29	71.61	18.209	
10,900.00	8,887.47	13,295.00	8,409.82	42.56	78.09	-13.91	-1,121.74	1,958.97	1,397.43	1,325.32	72.11	19.379	
11,000.00	8,887.47	13,295.00	8,409.82	43.11	78.09	-8.16	-1,121.74	1,958.97	1,492.06	1,419.59	72.47	20.589	
11,100.00	8,887.47	13,295.00	8,409.82	43.65	78.09	-1.79	-1,121.74	1,958.97	1,587.49	1,514.78	72.71	21.833	
11,200.00	8,887.46	13,295.00	8,409.82	44.18	78.09	5.05	-1,121.74	1,958.97	1,683.49	1,610.64	72.85	23.110	
11,300.00	8,887.46	13,295.00	8,409.82	44.71	78.09	12.17	-1,121.74	1,958.97	1,779.84	1,706.94	72.90	24.415	
11,400.00	8,887.46	13,295.00	8,409.82	45.22	78.09	19.30	-1,121.74	1,958.97	1,876.39	1,803.52	72.88	25.748	
11,500.00	8,887.45	13,295.00	8,409.82	45.73	78.09	26.20	-1,121.74	1,958.97	1,973.00	1,900.21	72.79	27.105	
11,600.00	8,887.45	13,295.00	8,409.82	46.23	78.09	32.66	-1,121.74	1,958.97	2,069.56	1,996.90	72.66	28.484	
11,700.00	8,887.45	13,295.00	8,409.82	46.72	78.09	38.54	-1,121.74	1,958.97	2,165.95	2,093.47	72.48	29.884	
11,800.00	8,887.44	13,295.00	8,409.82	47.20	78.09	43.80	-1,121.74	1,958.97	2,262.09	2,189.82	72.27	31.302	
11,900.00	8,887.44	13,295.00	8,409.82	47.67	78.09	48.43	-1,121.74	1,958.97	2,357.90	2,285.88	72.03	32.736	
12,000.00	8,887.43	13,295.00	8,409.82	48.13	78.09	52.49	-1,121.74	1,958.97	2,453.32	2,381.55	71.77	34.185	
12,078.43	8,887.43	13,295.00	8,409.82	48.48	78.09	55.30	-1,121.74	1,958.97	2,527.82	2,456.27	71.55	35.330	
12,100.00	8,887.43	13,295.00	8,409.82	48.57	78.09	55.30	-1,121.74	1,958.97	2,548.28	2,476.80	71.49	35.646	
12,200.00	8,887.42	13,295.00	8,409.82	49.01	78.09	55.30	-1,121.74	1,958.97	2,643.36	2,572.14	71.23	37.111	
12,300.00	8,887.42	13,295.00	8,409.82	49.47	78.09	55.30	-1,121.74	1,958.97	2,738.79	2,667.80	70.99	38.577	
12,400.00	8,887.41	13,295.00	8,409.82	49.92	78.09	55.30	-1,121.74	1,958.97	2,834.54	2,763.75	70.79	40.044	
12,500.00	8,887.41	13,295.00	8,409.82	50.39	78.09	55.30	-1,121.74	1,958.97	2,930.57	2,859.97	70.60	41.511	
12,600.00	8,887.40	13,295.00	8,409.82	50.86	78.09	55.30	-1,121.74	1,958.97	3,026.86	2,956.43	70.43	42.978	
12,700.00	8,887.40	13,295.00	8,409.82	51.34	78.09	55.30	-1,121.74	1,958.97	3,123.38	3,053.10	70.28	44.444	
12,800.00	8,887.39	13,295.00	8,409.82	51.82	78.09	55.30	-1,121.74	1,958.97	3,220.11	3,149.97	70.14	45.910	
12,900.00	8,887.39	13,295.00	8,409.82	52.31	78.09	55.30	-1,121.74	1,958.97	3,317.03	3,247.02	70.02	47.374	
13,000.00	8,887.38	13,295.00	8,409.82	52.81	78.09	55.30	-1,121.74	1,958.97	3,414.14	3,344.23	69.91	48.837	
13,100.00	8,887.37	13,295.00	8,409.82	53.31	78.09	55.30	-1,121.74	1,958.97	3,511.40	3,441.59	69.81	50.298	
13,200.00	8,887.37	13,295.00	8,409.82	53.82	78.09	55.30	-1,121.74	1,958.97	3,608.82	3,539.09	69.73	51.757	
13,300.00	8,887.36	13,295.00	8,409.82	54.34	78.09	55.30	-1,121.74	1,958.97	3,706.37	3,636.72	69.65	53.215	
13,400.00	8,887.36	13,295.00	8,409.82	54.86	78.09	55.30	-1,121.74	1,958.97	3,804.05	3,734.47	69.58	54.670	
13,500.00	8,887.35	13,295.00	8,409.82	55.38	78.09	55.30	-1,121.74	1,958.97	3,901.85	3,832.33	69.52	56.124	
13,600.00	8,887.35	13,295.00	8,409.82	55.91	78.09	55.30	-1,121.74	1,958.97	3,999.76	3,930.29	69.47	57.575	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 89-MWD+HRGM

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
13,700.00	8,887.34	13,295.00	8,409.82	56.45	78.09	55.30	-1,121.74	1,958.97	4,097.77	4,028.34	69.43	59.024	
13,800.00	8,887.34	13,295.00	8,409.82	56.99	78.09	55.30	-1,121.74	1,958.97	4,195.87	4,126.48	69.39	60.470	
13,900.00	8,887.33	13,295.00	8,409.82	57.54	78.09	55.30	-1,121.74	1,958.97	4,294.06	4,224.70	69.36	61.914	
14,000.00	8,887.33	13,295.00	8,409.82	58.09	78.09	55.30	-1,121.74	1,958.97	4,392.33	4,323.00	69.33	63.355	
14,100.00	8,887.32	13,295.00	8,409.82	58.64	78.09	55.30	-1,121.74	1,958.97	4,490.67	4,421.37	69.31	64.793	
14,200.00	8,887.32	13,295.00	8,409.82	59.20	78.09	55.30	-1,121.74	1,958.97	4,589.09	4,519.80	69.29	66.229	
14,300.00	8,887.31	13,295.00	8,409.82	59.77	78.09	55.30	-1,121.74	1,958.97	4,687.58	4,618.30	69.28	67.662	
14,400.00	8,887.31	13,295.00	8,409.82	60.34	78.09	55.30	-1,121.74	1,958.97	4,786.13	4,716.86	69.27	69.092	
14,500.00	8,887.30	13,295.00	8,409.82	60.91	78.09	55.30	-1,121.74	1,958.97	4,884.74	4,815.47	69.27	70.519	
14,600.00	8,887.30	13,295.00	8,409.82	61.49	78.09	55.30	-1,121.74	1,958.97	4,983.40	4,914.13	69.27	71.943	
14,700.00	8,887.29	13,295.00	8,409.82	62.07	78.09	55.30	-1,121.74	1,958.97	5,082.11	5,012.84	69.27	73.364	
14,800.00	8,887.29	13,295.00	8,409.82	62.65	78.09	55.30	-1,121.74	1,958.97	5,180.88	5,111.60	69.28	74.783	
14,900.00	8,887.28	13,295.00	8,409.82	63.24	78.09	55.30	-1,121.74	1,958.97	5,279.69	5,210.40	69.29	76.198	
15,000.00	8,887.28	13,295.00	8,409.82	63.83	78.09	55.30	-1,121.74	1,958.97	5,378.55	5,309.24	69.30	77.610	
15,100.00	8,887.27	13,295.00	8,409.82	64.43	78.09	55.30	-1,121.74	1,958.97	5,477.44	5,408.12	69.32	79.018	
15,200.00	8,887.27	13,295.00	8,409.82	65.03	78.09	55.30	-1,121.74	1,958.97	5,576.38	5,507.04	69.34	80.424	
15,300.00	8,887.26	13,295.00	8,409.82	65.63	78.09	55.30	-1,121.74	1,958.97	5,675.35	5,605.99	69.36	81.826	
15,400.00	8,887.25	13,295.00	8,409.82	66.24	78.09	55.30	-1,121.74	1,958.97	5,774.36	5,704.98	69.38	83.225	
15,500.00	8,887.25	13,295.00	8,409.82	66.85	78.09	55.30	-1,121.74	1,958.97	5,873.40	5,803.99	69.41	84.621	
15,600.00	8,887.24	13,295.00	8,409.82	67.46	78.09	55.30	-1,121.74	1,958.97	5,972.48	5,903.04	69.44	86.013	
15,700.00	8,887.24	13,295.00	8,409.82	68.07	78.09	55.30	-1,121.74	1,958.97	6,071.58	6,002.11	69.47	87.402	
15,800.00	8,887.23	13,295.00	8,409.82	68.69	78.09	55.30	-1,121.74	1,958.97	6,170.71	6,101.21	69.50	88.787	
15,900.00	8,887.23	13,295.00	8,409.82	69.31	78.09	55.30	-1,121.74	1,958.97	6,269.87	6,200.34	69.53	90.170	
16,000.00	8,887.22	13,295.00	8,409.82	69.94	78.09	55.30	-1,121.74	1,958.97	6,369.06	6,299.49	69.57	91.548	
16,100.00	8,887.22	13,295.00	8,409.82	70.56	78.09	55.30	-1,121.74	1,958.97	6,468.27	6,398.67	69.61	92.923	
16,200.00	8,887.21	13,295.00	8,409.82	71.19	78.09	55.30	-1,121.74	1,958.97	6,567.51	6,497.86	69.65	94.295	
16,300.00	8,887.21	13,295.00	8,409.82	71.83	78.09	55.30	-1,121.74	1,958.97	6,666.77	6,597.08	69.69	95.663	
16,400.00	8,887.20	13,295.00	8,409.82	72.46	78.09	55.30	-1,121.74	1,958.97	6,766.05	6,696.32	69.73	97.028	
16,500.00	8,887.20	13,295.00	8,409.82	73.10	78.09	55.30	-1,121.74	1,958.97	6,865.35	6,795.57	69.78	98.389	
16,600.00	8,887.19	13,295.00	8,409.82	73.74	78.09	55.30	-1,121.74	1,958.97	6,964.67	6,894.85	69.82	99.746	
16,700.00	8,887.19	13,295.00	8,409.82	74.38	78.09	55.30	-1,121.74	1,958.97	7,064.01	6,994.14	69.87	101.100	
16,800.00	8,887.18	13,295.00	8,409.82	75.02	78.09	55.30	-1,121.74	1,958.97	7,163.37	7,093.45	69.92	102.450	
16,900.00	8,887.18	13,295.00	8,409.82	75.67	78.09	55.30	-1,121.74	1,958.97	7,262.75	7,192.78	69.97	103.796	
17,000.00	8,887.17	13,295.00	8,409.82	76.32	78.09	55.30	-1,121.74	1,958.97	7,362.14	7,292.12	70.02	105.138	
17,100.00	8,887.17	13,295.00	8,409.82	76.97	78.09	55.30	-1,121.74	1,958.97	7,461.55	7,391.48	70.08	106.477	
17,200.00	8,887.16	13,295.00	8,409.82	77.62	78.09	55.30	-1,121.74	1,958.97	7,560.98	7,490.85	70.13	107.812	
17,300.00	8,887.16	13,295.00	8,409.82	78.28	78.09	55.30	-1,121.74	1,958.97	7,660.42	7,590.23	70.19	109.144	
17,400.00	8,887.15	13,295.00	8,409.82	78.93	78.09	55.30	-1,121.74	1,958.97	7,759.87	7,689.63	70.24	110.471	
17,500.00	8,887.14	13,295.00	8,409.82	79.59	78.09	55.30	-1,121.74	1,958.97	7,859.34	7,789.04	70.30	111.795	
17,600.00	8,887.14	13,295.00	8,409.82	80.25	78.09	55.30	-1,121.74	1,958.97	7,958.82	7,888.46	70.36	113.115	
17,700.00	8,887.13	13,295.00	8,409.82	80.91	78.09	55.30	-1,121.74	1,958.97	8,058.32	7,987.90	70.42	114.431	
17,800.00	8,887.13	13,295.00	8,409.82	81.58	78.09	55.30	-1,121.74	1,958.97	8,157.83	8,087.34	70.48	115.743	
17,900.00	8,887.12	13,295.00	8,409.82	82.24	78.09	55.30	-1,121.74	1,958.97	8,257.34	8,186.80	70.54	117.052	
18,000.00	8,887.12	13,295.00	8,409.82	82.91	78.09	55.30	-1,121.74	1,958.97	8,356.88	8,286.27	70.61	118.356	
18,100.00	8,887.11	13,295.00	8,409.82	83.58	78.09	55.30	-1,121.74	1,958.97	8,456.42	8,385.74	70.67	119.657	
18,200.00	8,887.11	13,295.00	8,409.82	84.25	78.09	55.30	-1,121.74	1,958.97	8,555.97	8,485.23	70.74	120.953	
18,300.00	8,887.10	13,295.00	8,409.82	84.92	78.09	55.30	-1,121.74	1,958.97	8,655.53	8,584.73	70.80	122.246	
18,400.00	8,887.10	13,295.00	8,409.82	85.60	78.09	55.30	-1,121.74	1,958.97	8,755.10	8,684.23	70.87	123.535	
18,500.00	8,887.09	13,295.00	8,409.82	86.27	78.09	55.30	-1,121.74	1,958.97	8,854.69	8,783.75	70.94	124.820	
18,600.00	8,887.09	13,295.00	8,409.82	86.95	78.09	55.30	-1,121.74	1,958.97	8,954.28	8,883.27	71.01	126.100	
18,700.00	8,887.08	13,295.00	8,409.82	87.63	78.09	55.30	-1,121.74	1,958.97	9,053.88	8,982.80	71.08	127.377	
18,800.00	8,887.08	13,295.00	8,409.82	88.31	78.09	55.30	-1,121.74	1,958.97	9,153.49	9,082.34	71.15	128.650	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 89-MWD+HRGM

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
18,900.00	8,887.07	13,295.00	8,409.82	88.99	78.09	55.30	-1,121.74	1,958.97	9,253.10	9,181.88	71.22	129.919	
19,000.00	8,887.07	13,295.00	8,409.82	89.67	78.09	55.30	-1,121.74	1,958.97	9,352.73	9,281.44	71.30	131.183	
19,100.00	8,887.06	13,295.00	8,409.82	90.36	78.09	55.30	-1,121.74	1,958.97	9,452.36	9,381.00	71.37	132.444	
19,200.00	8,887.06	13,295.00	8,409.82	91.04	78.09	55.30	-1,121.74	1,958.97	9,552.01	9,480.56	71.44	133.701	
19,300.00	8,887.05	13,295.00	8,409.82	91.73	78.09	55.30	-1,121.74	1,958.97	9,651.65	9,580.14	71.52	134.954	
19,400.00	8,887.05	13,295.00	8,409.82	92.42	78.09	55.30	-1,121.74	1,958.97	9,751.31	9,679.72	71.59	136.202	
19,500.00	8,887.04	13,295.00	8,409.82	93.11	78.09	55.30	-1,121.74	1,958.97	9,850.97	9,779.30	71.67	137.447	
19,600.00	8,887.04	13,295.00	8,409.82	93.80	78.09	55.30	-1,121.74	1,958.97	9,950.64	9,878.89	71.75	138.687	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 145-MWD+HRGM

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	Rule Assigned: Warning
0.00	0.00	0.00	0.00	0.00	0.50	29.37	3,824.98	2,152.72	4,389.20				
100.00	100.00	54.90	54.90	0.28	0.51	29.37	3,825.12	2,152.80	4,389.40	4,388.61	0.78	5,605.776	
200.00	200.00	145.00	144.99	0.63	0.55	29.37	3,825.98	2,153.27	4,390.44	4,389.26	1.18	3,722.760	
300.00	300.00	262.00	261.99	0.99	0.80	29.37	3,826.64	2,153.88	4,391.21	4,389.41	1.80	2,442.597	
400.00	400.00	334.00	333.99	1.35	1.02	29.38	3,827.15	2,154.32	4,392.08	4,389.71	2.37	1,853.668	
500.00	500.00	437.75	437.73	1.71	1.35	29.38	3,828.06	2,155.24	4,393.29	4,390.23	3.06	1,433.950	
600.00	600.00	540.65	540.63	2.07	1.70	29.38	3,828.62	2,155.92	4,394.08	4,390.31	3.77	1,165.551	
700.00	700.00	620.95	620.92	2.43	1.98	29.38	3,829.54	2,156.27	4,395.28	4,390.88	4.40	998.068	
800.00	800.00	721.63	721.59	2.79	2.32	29.37	3,831.05	2,156.39	4,396.64	4,391.53	5.11	860.419	
900.00	900.00	814.33	814.28	3.14	2.65	29.37	3,832.41	2,156.56	4,398.02	4,392.23	5.79	759.422	
1,000.00	1,000.00	909.21	909.14	3.50	2.98	29.35	3,834.28	2,156.51	4,399.70	4,393.22	6.48	678.822	
1,100.00	1,100.00	1,038.84	1,038.72	3.86	3.43	29.32	3,837.11	2,154.95	4,401.02	4,393.73	7.29	603.623	
1,200.00	1,200.00	1,164.82	1,164.58	4.22	3.87	29.25	3,840.34	2,150.55	4,401.52	4,393.43	8.09	544.337	
1,300.00	1,299.98	1,253.86	1,253.51	4.56	4.18	-90.82	3,843.00	2,146.94	4,402.15	4,393.41	8.74	503.558	
1,400.00	1,399.84	1,405.61	1,405.10	4.90	4.71	-91.01	3,846.37	2,141.01	4,402.28	4,392.68	9.61	458.170	
1,487.80	1,487.31	1,477.59	1,477.03	5.20	4.96	-91.13	3,847.53	2,138.34	4,402.09	4,391.93	10.16	433.318	
1,500.00	1,499.45	1,487.49	1,486.92	5.24	5.00	-91.15	3,847.70	2,138.00	4,402.09	4,391.86	10.24	430.094	
1,600.00	1,598.70	1,639.13	1,638.41	5.58	5.53	-91.48	3,850.07	2,131.61	4,401.75	4,390.64	11.11	396.161	
1,700.00	1,697.47	1,733.17	1,732.30	5.93	5.86	-91.76	3,851.29	2,126.45	4,400.72	4,388.93	11.79	373.245	
1,792.41	1,788.19	1,801.38	1,800.40	6.25	6.11	-91.98	3,852.46	2,122.89	4,400.40	4,388.04	12.36	356.090	
1,800.00	1,795.62	1,807.03	1,806.05	6.28	6.13	-92.00	3,852.56	2,122.61	4,400.40	4,388.00	12.40	354.746	
1,810.29	1,805.68	1,814.68	1,813.68	6.32	6.15	-92.16	3,852.70	2,122.25	4,400.42	4,387.95	12.47	352.940	
1,900.00	1,893.37	1,899.65	1,898.56	6.63	6.46	-92.44	3,854.22	2,118.55	4,400.77	4,387.68	13.09	336.219	
2,000.00	1,991.11	2,055.55	2,054.38	6.99	7.00	-92.92	3,854.64	2,113.86	4,400.63	4,386.64	13.99	314.539	
2,100.00	2,088.85	2,171.16	2,169.96	7.35	7.40	-93.26	3,852.97	2,111.59	4,399.55	4,384.80	14.75	298.311	
2,200.00	2,186.59	2,286.42	2,285.14	7.72	7.80	-93.61	3,851.76	2,107.90	4,398.41	4,382.90	15.51	283.547	
2,300.00	2,284.33	2,407.31	2,405.95	8.08	8.22	-93.97	3,849.60	2,104.07	4,396.74	4,380.44	16.30	269.797	
2,400.00	2,382.07	2,479.00	2,477.61	8.45	8.47	-94.18	3,847.95	2,102.57	4,395.24	4,378.33	16.91	259.859	
2,500.00	2,479.81	2,568.00	2,566.58	8.82	8.78	-94.44	3,846.41	2,100.74	4,394.35	4,376.75	17.59	249.778	
2,600.00	2,577.55	2,648.41	2,646.94	9.19	9.06	-94.68	3,845.85	2,098.04	4,393.91	4,375.65	18.25	240.754	
2,698.19	2,673.52	2,736.38	2,734.85	9.56	9.38	-94.96	3,845.52	2,094.80	4,393.76	4,374.83	18.93	232.111	
2,700.00	2,675.29	2,738.00	2,736.47	9.57	9.38	-94.97	3,845.52	2,094.74	4,393.76	4,374.82	18.94	231.958	
2,800.00	2,773.03	2,824.66	2,823.02	9.94	9.69	-95.25	3,845.80	2,090.65	4,393.94	4,374.32	19.63	223.871	
2,900.00	2,870.77	2,894.48	2,892.66	10.32	9.95	-95.51	3,847.09	2,085.71	4,394.66	4,374.40	20.26	216.923	
3,000.00	2,968.51	2,959.75	2,957.58	10.70	10.19	-95.77	3,849.51	2,079.50	4,396.21	4,375.34	20.88	210.585	
3,100.00	3,066.25	3,023.71	3,020.99	11.07	10.43	-96.05	3,853.05	2,071.89	4,398.65	4,377.16	21.49	204.699	
3,200.00	3,163.99	3,109.00	3,105.11	11.45	10.74	-96.46	3,859.54	2,059.43	4,402.09	4,379.91	22.18	198.465	
3,300.00	3,261.73	3,166.18	3,161.27	11.83	10.96	-96.75	3,864.66	2,050.03	4,406.21	4,383.44	22.77	193.477	
3,400.00	3,359.47	3,257.84	3,251.20	12.21	11.31	-97.22	3,873.11	2,034.39	4,410.82	4,387.32	23.50	187.655	
3,500.00	3,457.21	3,368.34	3,359.52	12.59	11.75	-97.79	3,883.29	2,015.07	4,415.65	4,391.33	24.32	181.585	
3,600.00	3,554.95	3,472.03	3,461.10	12.97	12.16	-98.33	3,892.58	1,996.46	4,420.45	4,395.34	25.11	176.048	
3,700.00	3,652.69	3,577.04	3,564.00	13.35	12.58	-98.88	3,901.69	1,977.61	4,425.37	4,399.46	25.91	170.804	
3,800.00	3,750.43	3,686.86	3,671.78	13.73	13.02	-99.43	3,910.51	1,958.50	4,430.27	4,403.53	26.73	165.731	
3,900.00	3,848.17	3,776.27	3,759.54	14.12	13.38	-99.89	3,917.52	1,942.89	4,435.32	4,407.85	27.47	161.446	
4,000.00	3,945.91	3,869.99	3,851.41	14.50	13.77	-100.37	3,925.21	1,926.02	4,440.88	4,412.65	28.24	157.282	
4,100.00	4,043.65	3,979.48	3,958.54	14.88	14.22	-100.94	3,934.16	1,905.27	4,446.48	4,417.41	29.07	152.949	
4,200.00	4,141.39	4,085.29	4,061.95	15.27	14.67	-101.50	3,942.65	1,884.52	4,452.14	4,422.24	29.90	148.922	
4,300.00	4,239.13	4,190.33	4,164.53	15.65	15.12	-102.06	3,950.87	1,863.45	4,457.88	4,427.15	30.73	145.084	
4,400.00	4,336.87	4,295.23	4,266.93	16.03	15.57	-102.61	3,958.83	1,842.14	4,463.71	4,432.15	31.56	141.449	
4,500.00	4,434.61	4,400.01	4,369.18	16.42	16.02	-103.17	3,966.51	1,820.59	4,469.64	4,437.26	32.39	138.005	
4,600.00	4,532.35	4,534.32	4,500.30	16.80	16.60	-103.88	3,975.61	1,792.96	4,475.52	4,442.17	33.35	134.204	
4,700.00	4,630.09	4,708.21	4,670.75	17.19	17.34	-104.76	3,984.03	1,759.66	4,480.40	4,445.93	34.47	129.969	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 145-MWD+HRGM

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	Rule Assigned: Warning
4,800.00	4,727.83	4,924.18	4,884.08	17.57	18.21	-105.73	3,985.77	1,726.32	4,482.12	4,446.41	35.71	125.502	
4,900.00	4,825.57	4,985.00	4,944.44	17.96	18.45	-105.98	3,985.91	1,718.79	4,484.83	4,448.49	36.34	123.421	
5,000.00	4,923.31	4,985.00	4,944.44	18.34	18.45	-105.98	3,985.91	1,718.79	4,488.74	4,452.02	36.72	122.230	
5,100.00	5,021.05	5,039.97	4,999.06	18.73	18.66	-106.19	3,986.90	1,712.73	4,494.06	4,456.75	37.31	120.447	
5,200.00	5,118.79	5,078.62	5,037.50	19.11	18.81	-106.34	3,988.11	1,708.88	4,500.84	4,463.01	37.83	118.973	
5,300.00	5,216.53	5,164.00	5,122.46	19.50	19.13	-106.66	3,992.26	1,701.53	4,509.62	4,471.08	38.53	117.028	
5,400.00	5,314.27	5,164.00	5,122.46	19.89	19.13	-106.66	3,992.26	1,701.53	4,518.60	4,479.72	38.88	116.204	
5,500.00	5,412.01	5,277.94	5,235.90	20.27	19.56	-107.08	3,998.67	1,692.91	4,528.83	4,489.14	39.70	114.082	
5,600.00	5,509.75	14,114.00	9,898.97	20.66	71.28	-113.17	-411.75	1,630.51	4,495.57	4,445.47	50.09	89.749	
5,700.00	5,607.50	14,145.37	9,898.75	21.05	71.67	-112.70	-443.12	1,630.79	4,395.92	4,345.41	50.51	87.025	
5,800.00	5,705.24	14,149.59	9,898.75	21.43	71.72	-112.64	-447.35	1,630.84	4,296.51	4,245.77	50.74	84.679	
5,900.00	5,802.98	14,153.94	9,898.75	21.82	71.78	-112.57	-451.69	1,630.89	4,197.11	4,146.14	50.97	82.348	
6,000.00	5,900.72	14,158.41	9,898.76	22.21	71.84	-112.49	-456.16	1,630.94	4,097.73	4,046.53	51.20	80.031	
6,100.00	5,998.46	14,163.01	9,898.77	22.59	71.89	-112.41	-460.76	1,631.00	3,998.37	3,946.93	51.44	77.729	
6,200.00	6,096.20	14,167.75	9,898.80	22.98	71.95	-112.33	-465.50	1,631.07	3,899.03	3,847.35	51.68	75.443	
6,300.00	6,193.94	14,172.63	9,898.83	23.37	72.01	-112.25	-470.38	1,631.14	3,799.71	3,747.78	51.93	73.172	
6,400.00	6,291.68	14,177.66	9,898.87	23.75	72.08	-112.15	-475.40	1,631.21	3,700.41	3,648.23	52.18	70.917	
6,500.00	6,389.42	14,208.00	9,899.30	24.14	72.46	-111.55	-505.74	1,631.74	3,601.33	3,548.71	52.62	68.443	
6,600.00	6,487.16	14,208.00	9,899.30	24.53	72.46	-111.55	-505.74	1,631.74	3,502.00	3,449.16	52.84	66.277	
6,700.00	6,584.90	14,208.00	9,899.30	24.92	72.46	-111.55	-505.74	1,631.74	3,402.70	3,349.64	53.06	64.125	
6,800.00	6,682.64	14,208.00	9,899.30	25.30	72.46	-111.55	-505.74	1,631.74	3,303.46	3,250.16	53.29	61.987	
6,900.00	6,780.38	14,208.00	9,899.30	25.69	72.46	-111.55	-505.74	1,631.74	3,204.26	3,150.73	53.53	59.863	
7,000.00	6,878.12	14,220.91	9,899.53	26.08	72.62	-111.26	-518.65	1,632.03	3,105.09	3,051.23	53.86	57.654	
7,100.00	6,975.86	14,243.57	9,899.82	26.47	72.91	-110.67	-541.30	1,632.74	3,005.89	2,951.63	54.26	55.395	
7,200.00	7,073.60	14,264.98	9,899.98	26.86	73.18	-110.00	-562.68	1,633.66	2,906.66	2,851.99	54.67	53.172	
7,300.00	7,171.34	14,285.22	9,900.01	27.24	73.44	-109.25	-582.90	1,634.75	2,807.39	2,752.32	55.07	50.982	
7,323.61	7,194.42	14,289.84	9,900.01	27.34	73.50	-109.06	-587.51	1,635.03	2,783.95	2,728.79	55.16	50.470	
7,400.00	7,269.29	14,303.47	9,899.96	27.63	73.67	-95.27	-601.10	1,635.91	2,708.06	2,652.60	55.47	48.824	
7,500.00	7,367.86	14,317.70	9,899.86	28.01	73.85	-75.98	-615.29	1,636.93	2,608.69	2,552.82	55.87	46.691	
7,600.00	7,466.96	14,325.25	9,899.81	28.38	73.95	-59.75	-622.83	1,637.43	2,509.44	2,453.18	56.26	44.602	
7,700.00	7,566.46	14,331.64	9,899.75	28.74	74.03	-47.61	-629.20	1,637.89	2,410.47	2,353.78	56.69	42.520	
7,800.00	7,666.25	14,335.18	9,899.72	29.09	74.07	-39.23	-632.73	1,638.15	2,311.96	2,254.81	57.15	40.456	
7,900.00	7,766.20	14,336.03	9,899.71	29.43	74.08	-33.49	-633.58	1,638.22	2,214.11	2,156.46	57.65	38.408	
7,933.80	7,800.00	14,335.73	9,899.71	29.55	74.08	88.15	-633.28	1,638.19	2,181.22	2,123.40	57.83	37.720	
8,000.00	7,866.20	14,334.87	9,899.72	29.76	74.07	88.06	-632.43	1,638.13	2,116.98	2,058.78	58.20	36.376	
8,100.00	7,966.20	14,333.62	9,899.73	30.07	74.05	87.92	-631.18	1,638.04	2,020.17	1,961.37	58.80	34.358	
8,200.00	8,066.20	14,332.41	9,899.74	30.39	74.04	87.79	-629.98	1,637.95	1,923.69	1,864.23	59.46	32.354	
8,300.00	8,166.20	14,331.25	9,899.76	30.71	74.02	87.66	-628.82	1,637.87	1,827.59	1,767.40	60.19	30.366	
8,400.00	8,266.20	14,330.13	9,899.77	31.04	74.01	87.53	-627.70	1,637.79	1,731.93	1,670.93	61.00	28.394	
8,428.80	8,295.00	14,329.81	9,899.77	31.13	74.00	87.50	-627.38	1,637.76	1,704.47	1,643.22	61.25	27.830	
8,450.00	8,316.20	14,329.96	9,899.77	31.20	74.01	-59.18	-627.53	1,637.77	1,684.22	1,622.78	61.44	27.414	
8,500.00	8,366.02	14,333.29	9,899.74	31.38	74.05	-74.90	-630.85	1,638.02	1,636.13	1,574.24	61.89	26.437	
8,550.00	8,415.30	14,340.69	9,899.66	31.56	74.14	-92.51	-638.23	1,638.56	1,587.83	1,525.49	62.34	25.471	
8,600.00	8,463.67	14,352.03	9,899.53	31.75	74.29	-109.18	-649.53	1,639.41	1,539.64	1,476.86	62.78	24.525	
8,650.00	8,510.75	14,367.16	9,899.32	31.95	74.48	-122.83	-664.62	1,640.59	1,491.87	1,428.68	63.19	23.608	
8,700.00	8,556.19	14,385.94	9,899.02	32.16	74.72	-133.20	-683.34	1,642.09	1,444.85	1,381.27	63.57	22.727	
8,750.00	8,599.64	14,397.00	9,898.81	32.37	74.86	-140.98	-694.36	1,643.01	1,398.93	1,335.13	63.80	21.928	
8,800.00	8,640.77	14,420.10	9,898.46	32.58	75.16	-146.77	-717.38	1,644.93	1,354.49	1,290.43	64.05	21.146	
8,850.00	8,679.28	14,438.64	9,898.30	32.80	75.40	-151.16	-735.85	1,646.46	1,312.00	1,247.83	64.17	20.447	
8,900.00	8,714.85	14,459.42	9,898.27	33.02	75.66	-154.60	-756.56	1,648.16	1,271.85	1,207.64	64.20	19.810	
8,950.00	8,747.24	14,585.32	9,894.16	33.24	77.28	-159.92	-882.11	1,655.29	1,232.85	1,167.69	65.16	18.921	
9,000.00	8,776.18	14,593.00	9,893.67	33.45	77.38	-161.91	-889.77	1,655.58	1,195.99	1,131.17	64.81	18.452	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 145-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,050.00	8,801.45	14,593.00	9,893.67	33.67	77.38	-163.22	-889.77	1,655.58	1,163.13	1,098.80	64.33	18.081	
9,100.00	8,822.88	14,593.00	9,893.67	33.88	77.38	-164.18	-889.77	1,655.58	1,134.92	1,071.10	63.81	17.785	
9,150.00	8,840.29	14,593.00	9,893.67	34.09	77.38	-164.88	-889.77	1,655.58	1,111.92	1,048.61	63.31	17.564	
9,178.80	8,848.43	14,593.00	9,893.67	34.21	77.38	-165.17	-889.77	1,655.58	1,101.24	1,038.21	63.03	17.471	
9,200.00	8,853.73	14,593.00	9,893.67	34.30	77.38	-165.27	-889.77	1,655.58	1,094.47	1,031.62	62.85	17.415	
9,300.00	8,873.56	14,593.00	9,893.67	34.70	77.38	-165.55	-889.77	1,655.58	1,072.63	1,010.38	62.25	17.230	
9,374.66	8,882.75	14,593.00	9,893.67	35.00	77.38	-165.61	-889.77	1,655.58	1,067.68	1,005.54	62.14	17.181	CC, ES, SF
9,400.00	8,884.77	14,593.00	9,893.67	35.10	77.38	-165.60	-889.77	1,655.58	1,068.25	1,006.08	62.18	17.181	
9,478.80	8,887.48	14,593.00	9,893.67	35.42	77.38	-165.49	-889.77	1,655.58	1,077.29	1,014.80	62.49	17.240	
9,500.00	8,887.48	14,593.00	9,893.67	35.50	77.38	-165.49	-889.77	1,655.58	1,081.39	1,018.76	62.63	17.267	
9,600.00	8,887.48	14,593.00	9,893.67	35.91	77.38	-165.49	-889.77	1,655.58	1,105.99	1,042.42	63.57	17.398	
9,700.00	8,887.48	14,593.00	9,893.67	36.33	77.38	-165.49	-889.77	1,655.58	1,138.87	1,073.97	64.91	17.547	
9,800.00	8,887.48	14,593.00	9,893.67	36.78	77.38	-165.49	-889.77	1,655.58	1,179.34	1,112.82	66.52	17.729	
9,900.00	8,887.48	14,593.00	9,893.67	37.25	77.38	-165.49	-889.77	1,655.58	1,226.64	1,158.35	68.30	17.961	
10,000.00	8,887.48	14,593.00	9,893.67	37.74	77.38	-165.49	-889.77	1,655.58	1,280.03	1,209.89	70.14	18.250	
10,100.00	8,887.48	14,593.00	9,893.67	38.24	77.38	-165.49	-889.77	1,655.58	1,338.76	1,266.80	71.96	18.603	
10,133.80	8,887.48	14,593.00	9,893.67	38.41	77.38	-165.49	-889.77	1,655.58	1,359.70	1,287.13	72.57	18.737	
10,200.00	8,887.48	14,593.00	9,893.67	38.76	77.38	-166.57	-889.77	1,655.58	1,402.32	1,328.60	73.71	19.024	
10,300.00	8,887.48	14,593.00	9,893.67	39.29	77.38	-168.39	-889.77	1,655.58	1,470.48	1,395.18	75.29	19.530	
10,400.00	8,887.48	14,593.00	9,893.67	39.83	77.38	-170.44	-889.77	1,655.58	1,542.59	1,465.91	76.68	20.117	
10,500.00	8,887.48	14,593.00	9,893.67	40.37	77.38	-172.71	-889.77	1,655.58	1,618.04	1,540.17	77.87	20.778	
10,600.00	8,887.48	14,593.00	9,893.67	40.92	77.38	-175.22	-889.77	1,655.58	1,696.31	1,617.43	78.88	21.505	
10,700.00	8,887.48	14,593.00	9,893.67	41.47	77.38	-177.94	-889.77	1,655.58	1,776.92	1,697.21	79.71	22.293	
10,800.00	8,887.47	14,593.00	9,893.67	42.02	77.38	179.14	-889.77	1,655.58	1,859.49	1,779.11	80.38	23.135	
10,900.00	8,887.47	14,593.00	9,893.67	42.56	77.38	176.02	-889.77	1,655.58	1,943.67	1,862.76	80.90	24.025	
11,000.00	8,887.47	14,593.00	9,893.67	43.11	77.38	172.74	-889.77	1,655.58	2,029.16	1,947.85	81.30	24.958	
11,100.00	8,887.47	14,593.00	9,893.67	43.65	77.38	169.33	-889.77	1,655.58	2,115.70	2,034.11	81.59	25.931	
11,200.00	8,887.46	14,593.00	9,893.67	44.18	77.38	165.82	-889.77	1,655.58	2,203.08	2,121.30	81.78	26.938	
11,300.00	8,887.46	14,593.00	9,893.67	44.71	77.38	162.25	-889.77	1,655.58	2,291.10	2,209.21	81.89	27.978	
11,400.00	8,887.46	14,593.00	9,893.67	45.22	77.38	158.67	-889.77	1,655.58	2,379.58	2,297.66	81.92	29.047	
11,500.00	8,887.45	14,593.00	9,893.67	45.73	77.38	155.12	-889.77	1,655.58	2,468.38	2,386.49	81.89	30.142	
11,600.00	8,887.45	14,593.00	9,893.67	46.23	77.38	151.64	-889.77	1,655.58	2,557.35	2,475.55	81.80	31.262	
11,700.00	8,887.45	14,593.00	9,893.67	46.72	77.38	148.25	-889.77	1,655.58	2,646.38	2,564.72	81.67	32.404	
11,800.00	8,887.44	14,593.00	9,893.67	47.20	77.38	145.00	-889.77	1,655.58	2,735.36	2,653.87	81.49	33.566	
11,900.00	8,887.44	14,593.00	9,893.67	47.67	77.38	141.89	-889.77	1,655.58	2,824.19	2,742.91	81.28	34.746	
12,000.00	8,887.43	14,593.00	9,893.67	48.13	77.38	138.95	-889.77	1,655.58	2,912.78	2,831.74	81.04	35.942	
12,078.43	8,887.43	14,593.00	9,893.67	48.48	77.38	136.76	-889.77	1,655.58	2,982.04	2,901.21	80.83	36.891	
12,100.00	8,887.43	14,593.00	9,893.67	48.57	77.38	136.76	-889.77	1,655.58	3,001.08	2,920.30	80.78	37.153	
12,200.00	8,887.42	14,593.00	9,893.67	49.01	77.38	136.76	-889.77	1,655.58	3,089.76	3,009.24	80.52	38.373	
12,300.00	8,887.42	14,593.00	9,893.67	49.47	77.38	136.76	-889.77	1,655.58	3,179.11	3,098.83	80.28	39.601	
12,400.00	8,887.41	14,593.00	9,893.67	49.92	77.38	136.76	-889.77	1,655.58	3,269.08	3,189.03	80.05	40.836	
12,500.00	8,887.41	14,593.00	9,893.67	50.39	77.38	136.76	-889.77	1,655.58	3,359.62	3,279.77	79.85	42.076	
12,600.00	8,887.40	14,593.00	9,893.67	50.86	77.38	136.76	-889.77	1,655.58	3,450.68	3,371.03	79.65	43.322	
12,700.00	8,887.40	14,593.00	9,893.67	51.34	77.38	136.76	-889.77	1,655.58	3,542.22	3,462.75	79.47	44.573	
12,800.00	8,887.39	14,593.00	9,893.67	51.82	77.38	136.76	-889.77	1,655.58	3,634.21	3,554.91	79.30	45.828	
12,900.00	8,887.39	14,593.00	9,893.67	52.31	77.38	136.76	-889.77	1,655.58	3,726.61	3,647.46	79.15	47.086	
13,000.00	8,887.38	14,593.00	9,893.67	52.81	77.38	136.76	-889.77	1,655.58	3,819.39	3,740.39	79.00	48.347	
13,100.00	8,887.37	14,593.00	9,893.67	53.31	77.38	136.76	-889.77	1,655.58	3,912.53	3,833.67	78.87	49.610	
13,200.00	8,887.37	14,593.00	9,893.67	53.82	77.38	136.76	-889.77	1,655.58	4,006.00	3,927.26	78.74	50.876	
13,300.00	8,887.36	14,593.00	9,893.67	54.34	77.38	136.76	-889.77	1,655.58	4,099.78	4,021.15	78.62	52.144	
13,400.00	8,887.36	14,593.00	9,893.67	54.86	77.38	136.76	-889.77	1,655.58	4,193.85	4,115.33	78.52	53.413	
13,500.00	8,887.35	14,593.00	9,893.67	55.38	77.38	136.76	-889.77	1,655.58	4,288.18	4,209.76	78.42	54.683	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 145-MWD+HRGM **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
13,600.00	8,887.35	14,593.00	9,893.67	55.91	77.38	136.76	-889.77	1,655.58	4,382.76	4,304.44	78.33	55.954	
13,700.00	8,887.34	14,593.00	9,893.67	56.45	77.38	136.76	-889.77	1,655.58	4,477.58	4,399.34	78.24	57.226	
13,800.00	8,887.34	14,593.00	9,893.67	56.99	77.38	136.76	-889.77	1,655.58	4,572.63	4,494.46	78.17	58.498	
13,900.00	8,887.33	14,593.00	9,893.67	57.54	77.38	136.76	-889.77	1,655.58	4,667.87	4,589.78	78.10	59.770	
14,000.00	8,887.33	14,593.00	9,893.67	58.09	77.38	136.76	-889.77	1,655.58	4,763.32	4,685.29	78.03	61.043	
14,100.00	8,887.32	14,593.00	9,893.67	58.64	77.38	136.76	-889.77	1,655.58	4,858.94	4,780.97	77.97	62.315	
14,200.00	8,887.32	14,593.00	9,893.67	59.20	77.38	136.76	-889.77	1,655.58	4,954.74	4,876.82	77.92	63.586	
14,300.00	8,887.31	14,593.00	9,893.67	59.77	77.38	136.76	-889.77	1,655.58	5,050.71	4,972.83	77.87	64.858	
14,400.00	8,887.31	14,593.00	9,893.67	60.34	77.38	136.76	-889.77	1,655.58	5,146.82	5,068.99	77.83	66.128	
14,500.00	8,887.30	14,593.00	9,893.67	60.91	77.38	136.76	-889.77	1,655.58	5,243.08	5,165.29	77.79	67.398	
14,600.00	8,887.30	14,593.00	9,893.67	61.49	77.38	136.76	-889.77	1,655.58	5,339.48	5,261.72	77.76	68.667	
14,700.00	8,887.29	14,593.00	9,893.67	62.07	77.38	136.76	-889.77	1,655.58	5,436.01	5,358.28	77.73	69.935	
14,800.00	8,887.29	14,593.00	9,893.67	62.65	77.38	136.76	-889.77	1,655.58	5,532.66	5,454.96	77.70	71.201	
14,900.00	8,887.28	14,593.00	9,893.67	63.24	77.38	136.76	-889.77	1,655.58	5,629.43	5,551.75	77.68	72.467	
15,000.00	8,887.28	14,593.00	9,893.67	63.83	77.38	136.76	-889.77	1,655.58	5,726.31	5,648.65	77.67	73.730	
15,100.00	8,887.27	14,593.00	9,893.67	64.43	77.38	136.76	-889.77	1,655.58	5,823.30	5,745.64	77.65	74.993	
15,200.00	8,887.27	14,593.00	9,893.67	65.03	77.38	136.76	-889.77	1,655.58	5,920.38	5,842.74	77.64	76.254	
15,300.00	8,887.26	14,593.00	9,893.67	65.63	77.38	136.76	-889.77	1,655.58	6,017.56	5,939.93	77.63	77.513	
15,400.00	8,887.25	14,593.00	9,893.67	66.24	77.38	136.76	-889.77	1,655.58	6,114.84	6,037.21	77.63	78.771	
15,500.00	8,887.25	14,593.00	9,893.67	66.85	77.38	136.76	-889.77	1,655.58	6,212.19	6,134.57	77.63	80.026	
15,600.00	8,887.24	14,593.00	9,893.67	67.46	77.38	136.76	-889.77	1,655.58	6,309.64	6,232.01	77.63	81.280	
15,700.00	8,887.24	14,593.00	9,893.67	68.07	77.38	136.76	-889.77	1,655.58	6,407.16	6,329.52	77.63	82.532	
15,800.00	8,887.23	14,593.00	9,893.67	68.69	77.38	136.76	-889.77	1,655.58	6,504.75	6,427.11	77.64	83.782	
15,900.00	8,887.23	14,593.00	9,893.67	69.31	77.38	136.76	-889.77	1,655.58	6,602.42	6,524.77	77.65	85.030	
16,000.00	8,887.22	14,593.00	9,893.67	69.94	77.38	136.76	-889.77	1,655.58	6,700.15	6,622.49	77.66	86.276	
16,100.00	8,887.22	14,593.00	9,893.67	70.56	77.38	136.76	-889.77	1,655.58	6,797.96	6,720.28	77.67	87.519	
16,200.00	8,887.21	14,593.00	9,893.67	71.19	77.38	136.76	-889.77	1,655.58	6,895.82	6,818.13	77.69	88.760	
16,300.00	8,887.21	14,593.00	9,893.67	71.83	77.38	136.76	-889.77	1,655.58	6,993.75	6,916.04	77.71	89.999	
16,400.00	8,887.20	14,593.00	9,893.67	72.46	77.38	136.76	-889.77	1,655.58	7,091.73	7,014.00	77.73	91.236	
16,500.00	8,887.20	14,593.00	9,893.67	73.10	77.38	136.76	-889.77	1,655.58	7,189.77	7,112.02	77.75	92.470	
16,600.00	8,887.19	14,593.00	9,893.67	73.74	77.38	136.76	-889.77	1,655.58	7,287.86	7,210.09	77.78	93.702	
16,700.00	8,887.19	14,593.00	9,893.67	74.38	77.38	136.76	-889.77	1,655.58	7,386.01	7,308.20	77.80	94.932	
16,800.00	8,887.18	14,593.00	9,893.67	75.02	77.38	136.76	-889.77	1,655.58	7,484.20	7,406.37	77.83	96.158	
16,900.00	8,887.18	14,593.00	9,893.67	75.67	77.38	136.76	-889.77	1,655.58	7,582.44	7,504.58	77.86	97.383	
17,000.00	8,887.17	14,593.00	9,893.67	76.32	77.38	136.76	-889.77	1,655.58	7,680.72	7,602.83	77.89	98.604	
17,100.00	8,887.17	14,593.00	9,893.67	76.97	77.38	136.76	-889.77	1,655.58	7,779.05	7,701.12	77.93	99.824	
17,200.00	8,887.16	14,593.00	9,893.67	77.62	77.38	136.76	-889.77	1,655.58	7,877.42	7,799.46	77.96	101.040	
17,300.00	8,887.16	14,593.00	9,893.67	78.28	77.38	136.76	-889.77	1,655.58	7,975.83	7,897.83	78.00	102.254	
17,400.00	8,887.15	14,593.00	9,893.67	78.93	77.38	136.76	-889.77	1,655.58	8,074.29	7,996.25	78.04	103.465	
17,500.00	8,887.14	14,593.00	9,893.67	79.59	77.38	136.76	-889.77	1,655.58	8,172.77	8,094.69	78.08	104.673	
17,600.00	8,887.14	14,593.00	9,893.67	80.25	77.38	136.76	-889.77	1,655.58	8,271.30	8,193.18	78.12	105.878	
17,700.00	8,887.13	14,593.00	9,893.67	80.91	77.38	136.76	-889.77	1,655.58	8,369.86	8,291.69	78.16	107.081	
17,800.00	8,887.13	14,593.00	9,893.67	81.58	77.38	136.76	-889.77	1,655.58	8,468.45	8,390.24	78.21	108.280	
17,900.00	8,887.12	14,593.00	9,893.67	82.24	77.38	136.76	-889.77	1,655.58	8,567.08	8,488.82	78.25	109.477	
18,000.00	8,887.12	14,593.00	9,893.67	82.91	77.38	136.76	-889.77	1,655.58	8,665.73	8,587.43	78.30	110.671	
18,100.00	8,887.11	14,593.00	9,893.67	83.58	77.38	136.76	-889.77	1,655.58	8,764.42	8,686.07	78.35	111.862	
18,200.00	8,887.11	14,593.00	9,893.67	84.25	77.38	136.76	-889.77	1,655.58	8,863.14	8,784.74	78.40	113.050	
18,300.00	8,887.10	14,593.00	9,893.67	84.92	77.38	136.76	-889.77	1,655.58	8,961.88	8,883.43	78.45	114.235	
18,400.00	8,887.10	14,593.00	9,893.67	85.60	77.38	136.76	-889.77	1,655.58	9,060.66	8,982.15	78.50	115.417	
18,500.00	8,887.09	14,593.00	9,893.67	86.27	77.38	136.76	-889.77	1,655.58	9,159.46	9,080.90	78.56	116.596	
18,600.00	8,887.09	14,593.00	9,893.67	86.95	77.38	136.76	-889.77	1,655.58	9,258.28	9,179.67	78.61	117.772	
18,700.00	8,887.08	14,593.00	9,893.67	87.63	77.38	136.76	-889.77	1,655.58	9,357.13	9,278.47	78.67	118.945	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 145-MWD+HRGM **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
18,800.00	8,887.08	14,593.00	9,893.67	88.31	77.38	136.76	-889.77	1,655.58	9,456.01	9,377.28	78.73	120.114	
18,900.00	8,887.07	14,593.00	9,893.67	88.99	77.38	136.76	-889.77	1,655.58	9,554.91	9,476.12	78.78	121.281	
19,000.00	8,887.07	14,593.00	9,893.67	89.67	77.38	136.76	-889.77	1,655.58	9,653.83	9,574.98	78.84	122.444	
19,100.00	8,887.06	14,593.00	9,893.67	90.36	77.38	136.76	-889.77	1,655.58	9,752.77	9,673.87	78.90	123.605	
19,200.00	8,887.06	14,593.00	9,893.67	91.04	77.38	136.76	-889.77	1,655.58	9,851.73	9,772.77	78.96	124.762	
19,300.00	8,887.05	14,593.00	9,893.67	91.73	77.38	136.76	-889.77	1,655.58	9,950.72	9,871.69	79.03	125.916	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 55-MWD+HRGM

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	30.05	3,824.98	2,212.72	4,418.94				
100.00	100.00	55.00	54.99	0.28	0.51	30.06	3,824.75	2,213.41	4,419.10	4,418.33	0.78	5,671.047	
200.00	200.00	119.83	119.82	0.63	0.58	30.06	3,825.02	2,214.14	4,420.05	4,418.84	1.21	3,653.375	
300.00	300.00	261.93	261.87	0.99	0.93	30.02	3,827.70	2,212.14	4,420.99	4,419.07	1.92	2,301.719	
400.00	400.00	334.00	333.94	1.35	1.15	30.02	3,828.55	2,211.81	4,421.76	4,419.26	2.50	1,765.908	
500.00	500.00	564.42	564.33	1.71	1.92	29.98	3,828.80	2,209.04	4,421.16	4,417.53	3.63	1,218.434	
600.00	600.00	661.13	661.00	2.07	2.25	29.96	3,827.95	2,206.75	4,419.22	4,414.91	4.32	1,023.855	
700.00	700.00	729.20	729.06	2.43	2.48	29.95	3,827.46	2,205.45	4,417.68	4,412.77	4.91	899.883	
800.00	800.00	781.00	780.86	2.79	2.66	29.95	3,827.28	2,205.04	4,417.04	4,411.59	5.45	810.947	
821.47	821.47	800.65	800.51	2.86	2.73	29.95	3,827.27	2,205.00	4,417.01	4,411.42	5.59	790.058	
900.00	900.00	846.18	846.03	3.14	2.89	29.95	3,827.41	2,205.11	4,417.32	4,411.30	6.03	732.854	
1,000.00	1,000.00	938.41	938.26	3.50	3.20	29.95	3,828.21	2,205.64	4,418.35	4,411.65	6.70	659.255	
1,100.00	1,100.00	1,059.97	1,059.82	3.86	3.62	29.95	3,829.09	2,205.83	4,419.06	4,411.58	7.48	590.800	
1,200.00	1,200.00	1,125.63	1,125.47	4.22	3.84	29.95	3,829.32	2,206.61	4,419.93	4,411.87	8.06	548.262	
1,300.00	1,299.98	1,190.04	1,189.86	4.56	4.06	-90.01	3,829.65	2,208.12	4,421.55	4,412.92	8.63	512.535	
1,400.00	1,399.84	1,246.00	1,245.80	4.90	4.26	-89.99	3,830.27	2,209.76	4,424.03	4,414.88	9.15	483.366	
1,500.00	1,499.45	1,317.57	1,317.31	5.24	4.50	-89.98	3,831.47	2,212.35	4,427.32	4,417.58	9.74	454.643	
1,600.00	1,598.70	1,391.19	1,390.84	5.58	4.76	-89.99	3,832.95	2,215.66	4,431.32	4,420.99	10.33	428.770	
1,700.00	1,697.47	1,500.43	1,499.91	5.93	5.14	-90.08	3,835.09	2,221.33	4,435.66	4,424.60	11.06	400.924	
1,800.00	1,795.62	1,623.95	1,623.29	6.28	5.58	-90.26	3,837.18	2,226.94	4,439.49	4,427.64	11.85	374.639	
1,810.29	1,805.68	1,636.48	1,635.81	6.32	5.62	-90.41	3,837.39	2,227.44	4,439.86	4,427.93	11.93	372.145	
1,900.00	1,893.37	1,741.47	1,740.72	6.63	5.99	-90.67	3,839.13	2,231.12	4,442.94	4,430.32	12.62	352.055	
2,000.00	1,991.11	1,830.40	1,829.59	6.99	6.31	-90.89	3,840.66	2,233.84	4,446.30	4,433.01	13.29	334.491	
2,100.00	2,088.85	1,906.36	1,905.49	7.35	6.58	-91.07	3,842.03	2,236.75	4,450.18	4,436.26	13.92	319.651	
2,200.00	2,186.59	1,994.75	1,993.75	7.72	6.89	-91.28	3,843.66	2,240.95	4,454.58	4,439.98	14.60	305.130	
2,300.00	2,284.33	2,108.40	2,107.20	8.08	7.30	-91.52	3,844.84	2,247.57	4,458.87	4,443.50	15.37	290.086	
2,400.00	2,382.07	2,243.93	2,242.47	8.45	7.78	-91.79	3,845.06	2,255.99	4,462.62	4,446.40	16.22	275.050	
2,500.00	2,479.81	2,318.00	2,316.40	8.82	8.05	-91.94	3,845.12	2,260.56	4,466.35	4,449.49	16.86	264.942	
2,600.00	2,577.55	2,395.17	2,393.38	9.19	8.33	-92.09	3,845.26	2,266.00	4,470.63	4,453.13	17.50	255.397	
2,700.00	2,675.29	2,478.52	2,476.46	9.57	8.63	-92.25	3,845.43	2,272.63	4,475.38	4,457.21	18.18	246.221	
2,800.00	2,773.03	2,558.30	2,556.00	9.94	8.92	-92.40	3,845.99	2,278.80	4,480.54	4,461.70	18.84	237.871	
2,900.00	2,870.77	2,664.00	2,661.48	10.32	9.30	-92.62	3,847.69	2,285.43	4,485.87	4,466.28	19.59	228.952	
3,000.00	2,968.51	2,754.00	2,751.28	10.70	9.63	-92.81	3,849.17	2,291.20	4,491.36	4,471.06	20.29	221.327	
3,100.00	3,066.25	2,754.00	2,751.28	11.07	9.63	-92.81	3,849.17	2,291.20	4,498.02	4,477.36	20.65	217.805	
3,200.00	3,163.99	2,808.88	2,805.96	11.45	9.83	-92.91	3,850.79	2,295.70	4,505.87	4,484.65	21.22	212.369	
3,300.00	3,261.73	2,843.00	2,839.87	11.83	9.96	-92.97	3,852.28	2,299.03	4,515.39	4,493.69	21.70	208.092	
3,400.00	3,359.47	2,843.00	2,839.87	12.21	9.96	-92.97	3,852.28	2,299.03	4,526.70	4,504.66	22.04	205.399	
3,500.00	3,457.21	2,932.00	2,928.06	12.59	10.29	-93.13	3,858.16	2,309.47	4,539.17	4,516.43	22.74	199.631	
3,600.00	3,554.95	2,932.00	2,928.06	12.97	10.29	-93.13	3,858.16	2,309.47	4,552.90	4,529.83	23.07	197.385	
3,700.00	3,652.69	2,979.84	2,975.27	13.35	10.47	-93.21	3,862.33	2,316.01	4,568.20	4,544.61	23.59	193.644	
3,800.00	3,750.43	3,022.00	3,016.77	13.73	10.63	-93.27	3,866.35	2,322.23	4,584.72	4,560.64	24.09	190.338	
3,900.00	3,848.17	3,090.90	3,084.46	14.12	10.90	-93.37	3,873.32	2,333.06	4,602.17	4,577.47	24.70	186.318	
4,000.00	3,945.91	3,178.45	3,170.35	14.50	11.24	-93.49	3,882.42	2,347.34	4,620.14	4,594.74	25.40	181.912	
4,100.00	4,043.65	3,289.46	3,279.31	14.88	11.67	-93.65	3,894.03	2,365.11	4,638.08	4,611.88	26.20	177.015	
4,200.00	4,141.39	3,400.62	3,388.53	15.27	12.11	-93.81	3,905.50	2,382.32	4,655.69	4,628.68	27.01	172.380	
4,300.00	4,239.13	3,528.58	3,514.35	15.65	12.62	-94.00	3,918.68	2,401.53	4,673.18	4,645.28	27.89	167.549	
4,400.00	4,336.87	3,675.39	3,659.13	16.03	13.20	-94.24	3,932.59	2,421.42	4,689.13	4,660.27	28.86	162.492	
4,500.00	4,434.61	3,737.00	3,719.84	16.42	13.45	-94.33	3,938.46	2,430.17	4,705.53	4,676.09	29.45	159.804	
4,600.00	4,532.35	3,784.07	3,766.11	16.80	13.64	-94.40	3,943.16	2,437.41	4,722.85	4,692.88	29.97	157.597	
4,700.00	4,630.09	3,845.12	3,826.01	17.19	13.89	-94.48	3,949.63	2,447.28	4,741.10	4,710.55	30.55	155.180	
4,800.00	4,727.83	3,931.82	3,910.99	17.57	14.25	-94.59	3,959.02	2,461.68	4,759.81	4,728.55	31.26	152.282	
4,900.00	4,825.57	4,021.79	3,999.16	17.96	14.62	-94.71	3,969.02	2,476.56	4,778.76	4,746.78	31.98	149.443	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 55-MWD+HRGM

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	Rule Assigned: Warning
5,000.00	4,923.31	4,227.39	4,201.06	18.34	15.47	-94.99	3,990.59	2,508.80	4,796.99	4,763.75	33.24	144.324	
5,100.00	5,021.05	4,542.00	4,511.94	18.73	16.73	-95.43	4,012.56	2,551.44	4,809.80	4,774.84	34.96	137.586	
5,200.00	5,118.79	4,631.00	4,600.07	19.11	17.09	-95.56	4,017.68	2,562.72	4,822.41	4,786.73	35.68	135.166	
5,300.00	5,216.53	4,775.29	4,743.02	19.50	17.66	-95.77	4,025.80	2,580.54	4,834.91	4,798.28	36.63	131.979	
5,400.00	5,314.27	5,358.74	5,324.13	19.89	19.81	-96.76	4,033.68	2,627.54	4,842.00	4,802.78	39.22	123.457	
5,500.00	5,412.01	13,925.00	9,756.29	20.27	70.03	-58.58	-325.59	2,629.82	4,760.63	4,707.47	53.15	89.564	
5,600.00	5,509.75	13,925.00	9,756.29	20.66	70.03	-58.58	-325.59	2,629.82	4,664.02	4,610.49	53.53	87.125	
5,700.00	5,607.50	13,925.00	9,756.29	21.05	70.03	-58.58	-325.59	2,629.82	4,567.56	4,513.63	53.92	84.703	
5,800.00	5,705.24	13,925.00	9,756.29	21.43	70.03	-58.58	-325.59	2,629.82	4,471.25	4,416.92	54.33	82.298	
5,900.00	5,802.98	13,925.00	9,756.29	21.82	70.03	-58.58	-325.59	2,629.82	4,375.11	4,320.36	54.75	79.909	
6,000.00	5,900.72	13,925.00	9,756.29	22.21	70.03	-58.58	-325.59	2,629.82	4,279.15	4,223.96	55.19	77.539	
6,100.00	5,998.46	13,926.45	9,756.33	22.59	70.05	-58.52	-327.04	2,629.88	4,183.38	4,127.73	55.65	75.171	
6,200.00	6,096.20	13,942.16	9,756.68	22.98	70.25	-57.86	-342.72	2,630.54	4,087.78	4,031.53	56.24	72.682	
6,300.00	6,193.94	13,957.73	9,757.02	23.37	70.45	-57.20	-358.28	2,631.19	3,992.34	3,935.49	56.85	70.225	
6,400.00	6,291.68	13,973.17	9,757.34	23.75	70.64	-56.54	-373.70	2,631.84	3,897.07	3,839.59	57.48	67.801	
6,500.00	6,389.42	13,988.49	9,757.66	24.14	70.84	-55.87	-389.01	2,632.48	3,802.00	3,743.87	58.13	65.409	
6,600.00	6,487.16	14,003.69	9,757.97	24.53	71.03	-55.21	-404.18	2,633.11	3,707.13	3,648.33	58.80	63.049	
6,700.00	6,584.90	14,018.76	9,758.26	24.92	71.22	-54.54	-419.24	2,633.74	3,612.48	3,552.99	59.49	60.722	
6,800.00	6,682.64	14,030.45	9,758.48	25.30	71.37	-54.02	-430.92	2,634.24	3,518.07	3,457.88	60.19	58.452	
6,900.00	6,780.38	14,041.83	9,758.69	25.69	71.52	-53.51	-442.29	2,634.75	3,423.94	3,363.03	60.91	56.213	
7,000.00	6,878.12	14,053.20	9,758.90	26.08	71.66	-52.99	-453.64	2,635.28	3,330.11	3,268.44	61.66	54.004	
7,100.00	6,975.86	14,064.55	9,759.10	26.47	71.81	-52.47	-464.98	2,635.83	3,236.60	3,174.14	62.45	51.826	
7,200.00	7,073.60	14,075.90	9,759.30	26.86	71.95	-51.95	-476.31	2,636.39	3,143.44	3,080.16	63.28	49.678	
7,300.00	7,171.34	14,087.23	9,759.49	27.24	72.09	-51.43	-487.62	2,636.98	3,050.66	2,986.52	64.14	47.562	
7,323.61	7,194.42	14,089.90	9,759.54	27.34	72.13	-51.30	-490.29	2,637.13	3,028.81	2,964.46	64.35	47.067	
7,400.00	7,269.29	14,098.08	9,759.67	27.63	72.23	-48.19	-498.46	2,637.57	2,958.56	2,893.51	65.06	45.476	
7,500.00	7,367.86	14,107.35	9,759.82	28.01	72.35	-44.66	-507.71	2,638.08	2,867.90	2,801.85	66.05	43.419	
7,600.00	7,466.96	14,164.07	9,760.16	28.38	73.08	-39.56	-564.37	2,640.62	2,778.54	2,711.00	67.54	41.141	
7,700.00	7,566.46	14,216.28	9,760.29	28.74	73.74	-35.20	-616.53	2,642.73	2,691.79	2,622.69	69.10	38.954	
7,800.00	7,666.25	14,218.61	9,760.28	29.09	73.77	-33.31	-618.86	2,642.79	2,607.13	2,536.75	70.37	37.047	
7,900.00	7,766.20	14,219.37	9,760.27	29.43	73.78	-31.75	-619.62	2,642.81	2,525.25	2,453.49	71.76	35.191	
7,933.80	7,800.00	14,219.26	9,760.27	29.55	73.78	88.85	-619.52	2,642.81	2,498.27	2,426.02	72.25	34.579	
8,000.00	7,866.20	14,218.89	9,760.27	29.76	73.78	88.84	-619.14	2,642.80	2,446.13	2,372.89	73.24	33.397	
8,100.00	7,966.20	14,218.32	9,760.28	30.07	73.77	88.82	-618.57	2,642.78	2,368.70	2,293.88	74.82	31.658	
8,200.00	8,066.20	14,177.15	9,760.21	30.39	73.24	87.27	-577.44	2,641.18	2,292.83	2,216.70	76.13	30.116	
8,300.00	8,166.20	14,177.58	9,760.22	30.71	73.25	87.29	-577.87	2,641.19	2,219.07	2,141.17	77.90	28.485	
8,400.00	8,266.20	14,178.02	9,760.22	31.04	73.26	87.30	-578.31	2,641.21	2,147.43	2,067.67	79.77	26.922	
8,428.80	8,295.00	14,178.15	9,760.22	31.13	73.26	87.31	-578.43	2,641.22	2,127.23	2,046.91	80.32	26.484	
8,450.00	8,316.20	14,178.55	9,760.22	31.20	73.26	-55.39	-578.84	2,641.24	2,112.32	2,031.58	80.74	26.163	
8,500.00	8,366.02	14,182.01	9,760.23	31.38	73.31	-59.62	-582.29	2,641.38	2,076.35	1,994.62	81.73	25.404	
8,550.00	8,415.30	14,188.93	9,760.26	31.56	73.39	-64.17	-589.21	2,641.68	2,039.42	1,956.68	82.74	24.648	
8,600.00	8,463.67	14,233.23	9,760.18	31.75	73.96	-67.61	-633.48	2,643.22	2,001.58	1,917.50	84.07	23.808	
8,650.00	8,510.75	14,244.79	9,760.12	31.95	74.11	-72.79	-645.03	2,643.56	1,963.11	1,878.04	85.06	23.078	
8,700.00	8,556.19	14,259.25	9,760.04	32.16	74.30	-78.20	-659.48	2,644.00	1,924.23	1,838.20	86.04	22.366	
8,750.00	8,599.64	14,276.52	9,759.96	32.37	74.52	-83.73	-676.75	2,644.54	1,885.16	1,798.18	86.98	21.673	
8,800.00	8,640.77	14,296.50	9,759.88	32.58	74.77	-89.29	-696.72	2,645.18	1,846.10	1,758.21	87.90	21.003	
8,850.00	8,679.28	14,302.00	9,759.86	32.80	74.84	-95.24	-702.21	2,645.36	1,807.36	1,718.75	88.61	20.397	
8,900.00	8,714.85	14,333.62	9,759.84	33.02	75.25	-100.35	-733.81	2,646.51	1,769.00	1,679.51	89.49	19.768	
8,950.00	8,747.24	14,354.35	9,759.93	33.24	75.52	-105.49	-754.52	2,647.38	1,731.50	1,641.32	90.18	19.200	
9,000.00	8,776.18	14,376.83	9,760.11	33.45	75.81	-110.29	-776.98	2,648.42	1,695.03	1,604.23	90.80	18.668	
9,050.00	8,801.45	14,396.00	9,760.35	33.67	76.06	-114.72	-796.12	2,649.38	1,659.88	1,568.59	91.28	18.184	
9,100.00	8,822.88	14,426.23	9,760.83	33.88	76.45	-118.71	-826.30	2,651.07	1,626.28	1,534.51	91.77	17.722	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 55-MWD+HRGM **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,150.00	8,840.29	14,455.84	9,761.43	34.09	76.83	-122.34	-855.84	2,652.94	1,594.54	1,502.41	92.13	17.308	
9,178.80	8,848.43	14,478.54	9,761.90	34.21	77.13	-124.31	-878.50	2,654.40	1,577.13	1,484.80	92.33	17.081	
9,200.00	8,853.73	14,495.40	9,762.26	34.30	77.35	-125.08	-895.32	2,655.49	1,564.65	1,472.18	92.46	16.922	
9,300.00	8,873.56	14,503.00	9,762.41	34.70	77.45	-127.77	-902.90	2,655.98	1,510.18	1,417.95	92.23	16.374	
9,400.00	8,884.77	14,503.00	9,762.41	35.10	77.45	-129.73	-902.90	2,655.98	1,465.29	1,373.70	91.59	15.998	
9,478.80	8,887.48	14,503.00	9,762.41	35.42	77.45	-130.86	-902.90	2,655.98	1,437.51	1,346.67	90.84	15.825	
9,500.00	8,887.48	14,503.00	9,762.41	35.50	77.45	-130.86	-902.90	2,655.98	1,431.14	1,340.53	90.61	15.795	
9,600.00	8,887.48	14,503.00	9,762.41	35.91	77.45	-130.86	-902.90	2,655.98	1,404.99	1,315.54	89.45	15.707	SF
9,700.00	8,887.48	14,503.00	9,762.41	36.33	77.45	-130.86	-902.90	2,655.98	1,385.59	1,297.39	88.21	15.709	
9,800.00	8,887.48	14,503.00	9,762.41	36.78	77.45	-130.86	-902.90	2,655.98	1,373.22	1,286.34	86.88	15.806	
9,900.00	8,887.48	14,503.00	9,762.41	37.25	77.45	-130.86	-902.90	2,655.98	1,368.06	1,282.57	85.49	16.003	ES
9,920.71	8,887.48	14,503.00	9,762.41	37.35	77.45	-130.86	-902.90	2,655.98	1,367.90	1,282.71	85.19	16.057	CC
10,000.00	8,887.48	14,503.00	9,762.41	37.74	77.45	-130.86	-902.90	2,655.98	1,370.20	1,286.15	84.05	16.302	
10,100.00	8,887.48	14,503.00	9,762.41	38.24	77.45	-130.86	-902.90	2,655.98	1,379.60	1,297.00	82.60	16.703	
10,133.80	8,887.48	14,503.00	9,762.41	38.41	77.45	-130.86	-902.90	2,655.98	1,384.40	1,302.29	82.11	16.860	
10,200.00	8,887.48	14,503.00	9,762.41	38.76	77.45	-131.03	-902.90	2,655.98	1,396.69	1,315.51	81.18	17.205	
10,300.00	8,887.48	14,503.00	9,762.41	39.29	77.45	-131.39	-902.90	2,655.98	1,423.00	1,343.13	79.87	17.816	
10,400.00	8,887.48	14,503.00	9,762.41	39.83	77.45	-131.89	-902.90	2,655.98	1,458.16	1,379.45	78.71	18.525	
10,500.00	8,887.48	14,503.00	9,762.41	40.37	77.45	-132.53	-902.90	2,655.98	1,501.49	1,423.78	77.71	19.322	
10,600.00	8,887.48	14,503.00	9,762.41	40.92	77.45	-133.34	-902.90	2,655.98	1,552.27	1,475.39	76.88	20.191	
10,700.00	8,887.48	14,503.00	9,762.41	41.47	77.45	-134.31	-902.90	2,655.98	1,609.73	1,533.52	76.21	21.122	
10,800.00	8,887.47	14,503.00	9,762.41	42.02	77.45	-135.47	-902.90	2,655.98	1,673.12	1,597.42	75.70	22.103	
10,900.00	8,887.47	14,503.00	9,762.41	42.56	77.45	-136.83	-902.90	2,655.98	1,741.71	1,666.39	75.32	23.125	
11,000.00	8,887.47	14,503.00	9,762.41	43.11	77.45	-138.41	-902.90	2,655.98	1,814.84	1,739.79	75.05	24.183	
11,100.00	8,887.47	14,503.00	9,762.41	43.65	77.45	-140.25	-902.90	2,655.98	1,891.89	1,817.03	74.87	25.270	
11,200.00	8,887.46	14,503.00	9,762.41	44.18	77.45	-142.36	-902.90	2,655.98	1,972.33	1,897.57	74.76	26.382	
11,300.00	8,887.46	14,503.00	9,762.41	44.71	77.45	-144.79	-902.90	2,655.98	2,055.66	1,980.95	74.71	27.517	
11,400.00	8,887.46	14,503.00	9,762.41	45.22	77.45	-147.57	-902.90	2,655.98	2,141.44	2,066.75	74.69	28.671	
11,500.00	8,887.45	14,503.00	9,762.41	45.73	77.45	-150.73	-902.90	2,655.98	2,229.30	2,154.59	74.71	29.841	
11,600.00	8,887.45	14,503.00	9,762.41	46.23	77.45	-154.31	-902.90	2,655.98	2,318.90	2,244.16	74.74	31.026	
11,700.00	8,887.45	14,503.00	9,762.41	46.72	77.45	-158.34	-902.90	2,655.98	2,409.94	2,335.15	74.79	32.222	
11,800.00	8,887.44	14,503.00	9,762.41	47.20	77.45	-162.84	-902.90	2,655.98	2,502.16	2,427.31	74.85	33.428	
11,900.00	8,887.44	14,503.00	9,762.41	47.67	77.45	-167.80	-902.90	2,655.98	2,595.33	2,520.41	74.92	34.641	
12,000.00	8,887.43	14,503.00	9,762.41	48.13	77.45	-173.19	-902.90	2,655.98	2,689.24	2,614.24	75.00	35.858	
12,078.43	8,887.43	14,503.00	9,762.41	48.48	77.45	-177.67	-902.90	2,655.98	2,763.29	2,688.23	75.06	36.814	
12,100.00	8,887.43	14,503.00	9,762.41	48.57	77.45	-177.67	-902.90	2,655.98	2,783.71	2,708.63	75.08	37.077	
12,200.00	8,887.42	14,503.00	9,762.41	49.01	77.45	-177.67	-902.90	2,655.98	2,878.57	2,803.41	75.16	38.299	
12,300.00	8,887.42	14,503.00	9,762.41	49.47	77.45	-177.67	-902.90	2,655.98	2,973.77	2,898.53	75.24	39.526	
12,400.00	8,887.41	14,503.00	9,762.41	49.92	77.45	-177.67	-902.90	2,655.98	3,069.27	2,993.97	75.31	40.756	
12,500.00	8,887.41	14,503.00	9,762.41	50.39	77.45	-177.67	-902.90	2,655.98	3,165.06	3,089.68	75.38	41.989	
12,600.00	8,887.40	14,503.00	9,762.41	50.86	77.45	-177.67	-902.90	2,655.98	3,261.09	3,185.65	75.44	43.225	
12,700.00	8,887.40	14,503.00	9,762.41	51.34	77.45	-177.67	-902.90	2,655.98	3,357.36	3,281.85	75.51	44.463	
12,800.00	8,887.39	14,503.00	9,762.41	51.82	77.45	-177.67	-902.90	2,655.98	3,453.84	3,378.27	75.57	45.704	
12,900.00	8,887.39	14,503.00	9,762.41	52.31	77.45	-177.67	-902.90	2,655.98	3,550.51	3,474.88	75.63	46.946	
13,000.00	8,887.38	14,503.00	9,762.41	52.81	77.45	-177.67	-902.90	2,655.98	3,647.37	3,571.68	75.69	48.189	
13,100.00	8,887.37	14,503.00	9,762.41	53.31	77.45	-177.67	-902.90	2,655.98	3,744.39	3,668.64	75.75	49.433	
13,200.00	8,887.37	14,503.00	9,762.41	53.82	77.45	-177.67	-902.90	2,655.98	3,841.56	3,765.75	75.80	50.678	
13,300.00	8,887.36	14,503.00	9,762.41	54.34	77.45	-177.67	-902.90	2,655.98	3,938.87	3,863.01	75.86	51.924	
13,400.00	8,887.36	14,503.00	9,762.41	54.86	77.45	-177.67	-902.90	2,655.98	4,036.32	3,960.40	75.91	53.170	
13,500.00	8,887.35	14,503.00	9,762.41	55.38	77.45	-177.67	-902.90	2,655.98	4,133.88	4,057.92	75.97	54.416	
13,600.00	8,887.35	14,503.00	9,762.41	55.91	77.45	-177.67	-902.90	2,655.98	4,231.56	4,155.54	76.02	55.663	
13,700.00	8,887.34	14,503.00	9,762.41	56.45	77.45	-177.67	-902.90	2,655.98	4,329.35	4,253.28	76.07	56.909	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 55-MWD+HRGM **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
13,800.00	8,887.34	14,503.00	9,762.41	56.99	77.45	-177.67	-902.90	2,655.98	4,427.24	4,351.11	76.13	58.155	
13,900.00	8,887.33	14,503.00	9,762.41	57.54	77.45	-177.67	-902.90	2,655.98	4,525.21	4,449.03	76.18	59.401	
14,000.00	8,887.33	14,503.00	9,762.41	58.09	77.45	-177.67	-902.90	2,655.98	4,623.28	4,547.04	76.23	60.646	
14,100.00	8,887.32	14,503.00	9,762.41	58.64	77.45	-177.67	-902.90	2,655.98	4,721.42	4,645.14	76.29	61.891	
14,200.00	8,887.32	14,503.00	9,762.41	59.20	77.45	-177.67	-902.90	2,655.98	4,819.65	4,743.31	76.34	63.134	
14,300.00	8,887.31	14,503.00	9,762.41	59.77	77.45	-177.67	-902.90	2,655.98	4,917.94	4,841.55	76.39	64.377	
14,400.00	8,887.31	14,503.00	9,762.41	60.34	77.45	-177.67	-902.90	2,655.98	5,016.30	4,939.85	76.45	65.619	
14,500.00	8,887.30	14,503.00	9,762.41	60.91	77.45	-177.67	-902.90	2,655.98	5,114.72	5,038.23	76.50	66.860	
14,600.00	8,887.30	14,503.00	9,762.41	61.49	77.45	-177.67	-902.90	2,655.98	5,213.21	5,136.66	76.55	68.100	
14,700.00	8,887.29	14,503.00	9,762.41	62.07	77.45	-177.67	-902.90	2,655.98	5,311.75	5,235.14	76.61	69.339	
14,800.00	8,887.29	14,503.00	9,762.41	62.65	77.45	-177.67	-902.90	2,655.98	5,410.34	5,333.68	76.66	70.577	
14,900.00	8,887.28	14,503.00	9,762.41	63.24	77.45	-177.67	-902.90	2,655.98	5,508.99	5,432.28	76.71	71.813	
15,000.00	8,887.28	14,503.00	9,762.41	63.83	77.45	-177.67	-902.90	2,655.98	5,607.68	5,530.91	76.77	73.047	
15,100.00	8,887.27	14,503.00	9,762.41	64.43	77.45	-177.67	-902.90	2,655.98	5,706.42	5,629.60	76.82	74.280	
15,200.00	8,887.27	14,503.00	9,762.41	65.03	77.45	-177.67	-902.90	2,655.98	5,805.20	5,728.33	76.88	75.512	
15,300.00	8,887.26	14,503.00	9,762.41	65.63	77.45	-177.67	-902.90	2,655.98	5,904.03	5,827.09	76.93	76.742	
15,400.00	8,887.25	14,503.00	9,762.41	66.24	77.45	-177.67	-902.90	2,655.98	6,002.89	5,925.90	76.99	77.970	
15,500.00	8,887.25	14,503.00	9,762.41	66.85	77.45	-177.67	-902.90	2,655.98	6,101.79	6,024.74	77.05	79.197	
15,600.00	8,887.24	14,503.00	9,762.41	67.46	77.45	-177.67	-902.90	2,655.98	6,200.72	6,123.62	77.10	80.421	
15,700.00	8,887.24	14,503.00	9,762.41	68.07	77.45	-177.67	-902.90	2,655.98	6,299.69	6,222.53	77.16	81.644	
15,800.00	8,887.23	14,503.00	9,762.41	68.69	77.45	-177.67	-902.90	2,655.98	6,398.69	6,321.47	77.22	82.865	
15,900.00	8,887.23	14,503.00	9,762.41	69.31	77.45	-177.67	-902.90	2,655.98	6,497.72	6,420.44	77.28	84.084	
16,000.00	8,887.22	14,503.00	9,762.41	69.94	77.45	-177.67	-902.90	2,655.98	6,596.78	6,519.45	77.33	85.302	
16,100.00	8,887.22	14,503.00	9,762.41	70.56	77.45	-177.67	-902.90	2,655.98	6,695.87	6,618.47	77.39	86.517	
16,200.00	8,887.21	14,503.00	9,762.41	71.19	77.45	-177.67	-902.90	2,655.98	6,794.98	6,717.53	77.45	87.730	
16,300.00	8,887.21	14,503.00	9,762.41	71.83	77.45	-177.67	-902.90	2,655.98	6,894.12	6,816.61	77.51	88.940	
16,400.00	8,887.20	14,503.00	9,762.41	72.46	77.45	-177.67	-902.90	2,655.98	6,993.29	6,915.71	77.57	90.149	
16,500.00	8,887.20	14,503.00	9,762.41	73.10	77.45	-177.67	-902.90	2,655.98	7,092.48	7,014.84	77.64	91.356	
16,600.00	8,887.19	14,503.00	9,762.41	73.74	77.45	-177.67	-902.90	2,655.98	7,191.69	7,113.99	77.70	92.560	
16,700.00	8,887.19	14,503.00	9,762.41	74.38	77.45	-177.67	-902.90	2,655.98	7,290.92	7,213.16	77.76	93.762	
16,800.00	8,887.18	14,503.00	9,762.41	75.02	77.45	-177.67	-902.90	2,655.98	7,390.17	7,312.35	77.82	94.962	
16,900.00	8,887.18	14,503.00	9,762.41	75.67	77.45	-177.67	-902.90	2,655.98	7,489.45	7,411.56	77.89	96.159	
17,000.00	8,887.17	14,503.00	9,762.41	76.32	77.45	-177.67	-902.90	2,655.98	7,588.74	7,510.79	77.95	97.354	
17,100.00	8,887.17	14,503.00	9,762.41	76.97	77.45	-177.67	-902.90	2,655.98	7,688.05	7,610.03	78.01	98.547	
17,200.00	8,887.16	14,503.00	9,762.41	77.62	77.45	-177.67	-902.90	2,655.98	7,787.38	7,709.30	78.08	99.737	
17,300.00	8,887.16	14,503.00	9,762.41	78.28	77.45	-177.67	-902.90	2,655.98	7,886.72	7,808.58	78.14	100.924	
17,400.00	8,887.15	14,503.00	9,762.41	78.93	77.45	-177.67	-902.90	2,655.98	7,986.08	7,907.87	78.21	102.109	
17,500.00	8,887.14	14,503.00	9,762.41	79.59	77.45	-177.67	-902.90	2,655.98	8,085.46	8,007.18	78.28	103.292	
17,600.00	8,887.14	14,503.00	9,762.41	80.25	77.45	-177.67	-902.90	2,655.98	8,184.85	8,106.51	78.34	104.472	
17,700.00	8,887.13	14,503.00	9,762.41	80.91	77.45	-177.67	-902.90	2,655.98	8,284.26	8,205.84	78.41	105.650	
17,800.00	8,887.13	14,503.00	9,762.41	81.58	77.45	-177.67	-902.90	2,655.98	8,383.68	8,305.20	78.48	106.825	
17,900.00	8,887.12	14,503.00	9,762.41	82.24	77.45	-177.67	-902.90	2,655.98	8,483.11	8,404.56	78.55	107.997	
18,000.00	8,887.12	14,503.00	9,762.41	82.91	77.45	-177.67	-902.90	2,655.98	8,582.56	8,503.94	78.62	109.167	
18,100.00	8,887.11	14,503.00	9,762.41	83.58	77.45	-177.67	-902.90	2,655.98	8,682.02	8,603.33	78.69	110.334	
18,200.00	8,887.11	14,503.00	9,762.41	84.25	77.45	-177.67	-902.90	2,655.98	8,781.49	8,702.73	78.76	111.498	
18,300.00	8,887.10	14,503.00	9,762.41	84.92	77.45	-177.67	-902.90	2,655.98	8,880.98	8,802.15	78.83	112.659	
18,400.00	8,887.10	14,503.00	9,762.41	85.60	77.45	-177.67	-902.90	2,655.98	8,980.47	8,901.57	78.90	113.818	
18,500.00	8,887.09	14,503.00	9,762.41	86.27	77.45	-177.67	-902.90	2,655.98	9,079.98	9,001.01	78.97	114.974	
18,600.00	8,887.09	14,503.00	9,762.41	86.95	77.45	-177.67	-902.90	2,655.98	9,179.50	9,100.45	79.05	116.128	
18,700.00	8,887.08	14,503.00	9,762.41	87.63	77.45	-177.67	-902.90	2,655.98	9,279.03	9,199.91	79.12	117.278	
18,800.00	8,887.08	14,503.00	9,762.41	88.31	77.45	-177.67	-902.90	2,655.98	9,378.56	9,299.37	79.19	118.426	
18,900.00	8,887.07	14,503.00	9,762.41	88.99	77.45	-177.67	-902.90	2,655.98	9,478.11	9,398.84	79.27	119.571	

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

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Survey Program: 55-MWD+HRGM **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
19,000.00	8,887.07	14,503.00	9,762.41	89.67	77.45	-177.67	-902.90	2,655.98	9,577.67	9,498.33	79.34	120.713	
19,100.00	8,887.06	14,503.00	9,762.41	90.36	77.45	-177.67	-902.90	2,655.98	9,677.24	9,597.82	79.42	121.852	
19,200.00	8,887.06	14,503.00	9,762.41	91.04	77.45	-177.67	-902.90	2,655.98	9,776.81	9,697.32	79.49	122.988	
19,300.00	8,887.05	14,503.00	9,762.41	91.73	77.45	-177.67	-902.90	2,655.98	9,876.39	9,796.82	79.57	124.121	
19,400.00	8,887.05	14,503.00	9,762.41	92.42	77.45	-177.67	-902.90	2,655.98	9,975.99	9,896.34	79.65	125.252	

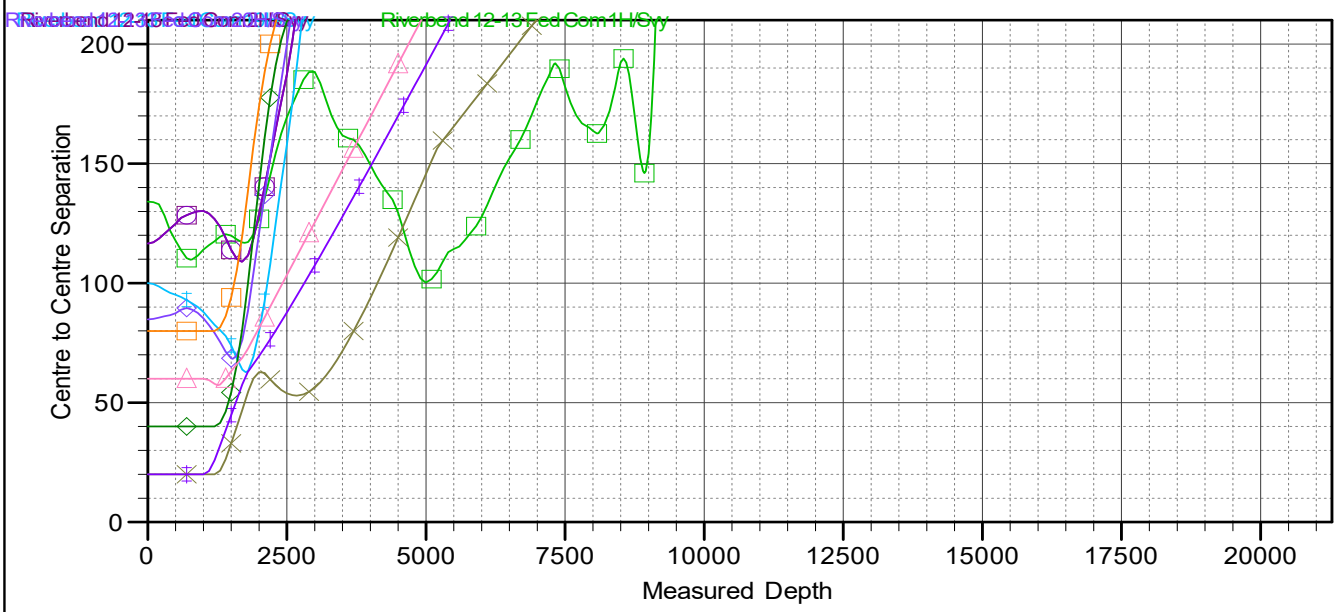
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Riverbend 12-13 Federal Com 8H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

Ladder Plot



LEGEND

- Riverbend 12-13 Fed Com 1H, OH, Svy V0
- Riverbend 12-13 Fed Com 31H, OH, Svy V0
- Riverbend 12-13 Fed Com 30H, OH, Svy V0
- Riverbend 12-13 Fed Com 19H, OH, Svy V0
- Riverbend 12-13 Fed Com 2H, OH, Svy V0
- Riverbend 12-13 Fed Com 2H, ST01, ST01 Svy V0
- Riverbend 12-13 Fed Com 20H, OH, Svy V0
- Riverbend 12-13 Fed Com 29H, OH, Svy V0
- Whistle Pig 1 SB Fee 5H, OH, Svy V0
- Whistle Pig 1 WA Fee 4, OH, Svy V0
- Malaga 13 DM Fed Com 1H, OH, Svy V0
- Whistle Pig 1 WXY Fee 9H, OH, Svy V0
- Riverbend 12-13 Federal Com 4H, OH, Plan 1 V0
- Riverbend 12-13 Federal Com 6H, OH, Plan 1 V0
- Riverbend 12-13 Federal Com 3H, OH, Plan 1 V0
- Riverbend 12-13 Federal Com 5H, OH, Plan 1 V0
- Riverbend 12-13 Federal Com 7H, OH, Plan 1 V0

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 8H
Project:	Eddy County, NM (NAD 83)	**TVD Reference:**	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	**MD Reference:**	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Riverbend 12-13 Federal Com 8H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Riverbend 12-13 Federal Com 8H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

Separation Factor Plot

COTERRA

Coterra Energy

Site: Riverbend 12-13 Federal Com
Well: Riverbend 12-13 Federal Com 8H
Wellbore: OH
Design: Plan 1
Rig:

PROJECT DETAILS: Eddy County, NM (NAD 83)

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

total

T G M

Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.26°

Magnetic Field
Strength: 47172.8nT
Dip Angle: 59.67°
Date: 8/19/2025
Model: HDGM2025

SHL

RKB Elevation: 2934' GL + 23 @ 2957.00usft

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.00	0.00	420300.68	631548.47	32.1551492	-104.0418276	

SECTION DETAILS

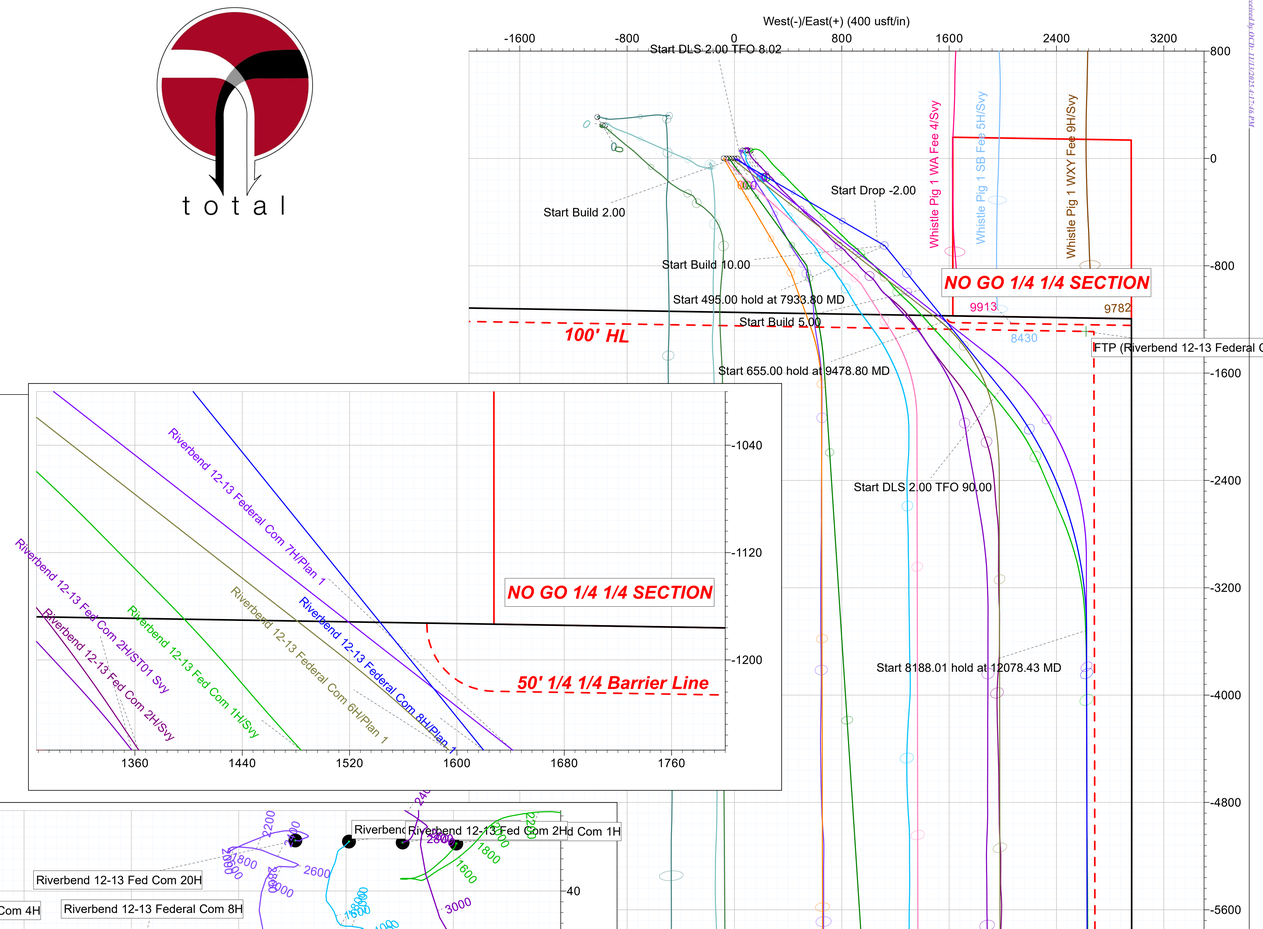
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	
1800.00	12.00	120.00	1795.62	-31.30	54.22	2.00	120.00	31.41	
1810.29	12.20	120.14	1805.68	-32.38	56.08	2.00	8.02	32.49	
7323.61	12.20	120.14	7194.42	-617.50	1064.01	0.00	0.00	619.54	
7933.80	0.00	0.00	7800.00	-650.00	1120.00	2.00	180.00	652.15	
8428.80	0.00	0.00	8295.00	-650.00	1120.00	0.00	0.00	652.15	
9178.80	75.00	141.00	8848.43	-980.03	1387.25	10.00	141.00	982.69	
9478.80	90.00	141.00	8887.48	-1210.52	1573.90	5.00	0.00	1213.54	
10133.80	90.00	141.00	8887.48	-1719.55	1986.10	0.00	0.00	1723.36	
12078.43	90.00	179.89	8887.43	-3517.05	2624.53	2.00	90.00	3522.08	
20266.44	90.00	179.89	8887.00	-11705.04	2639.88	0.00	0.00	11710.09	

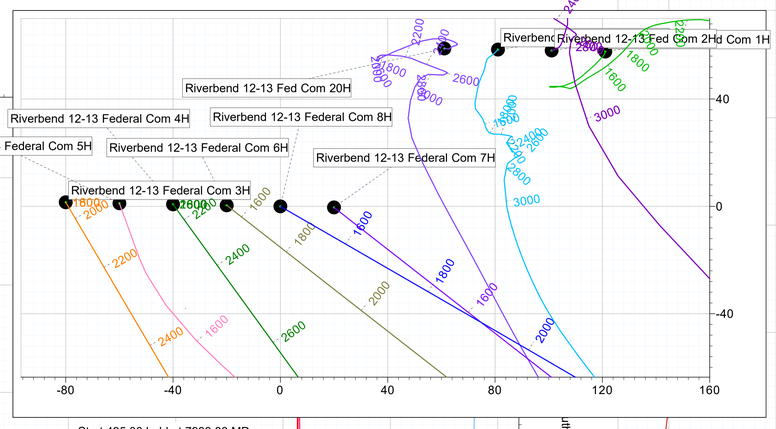
Formations

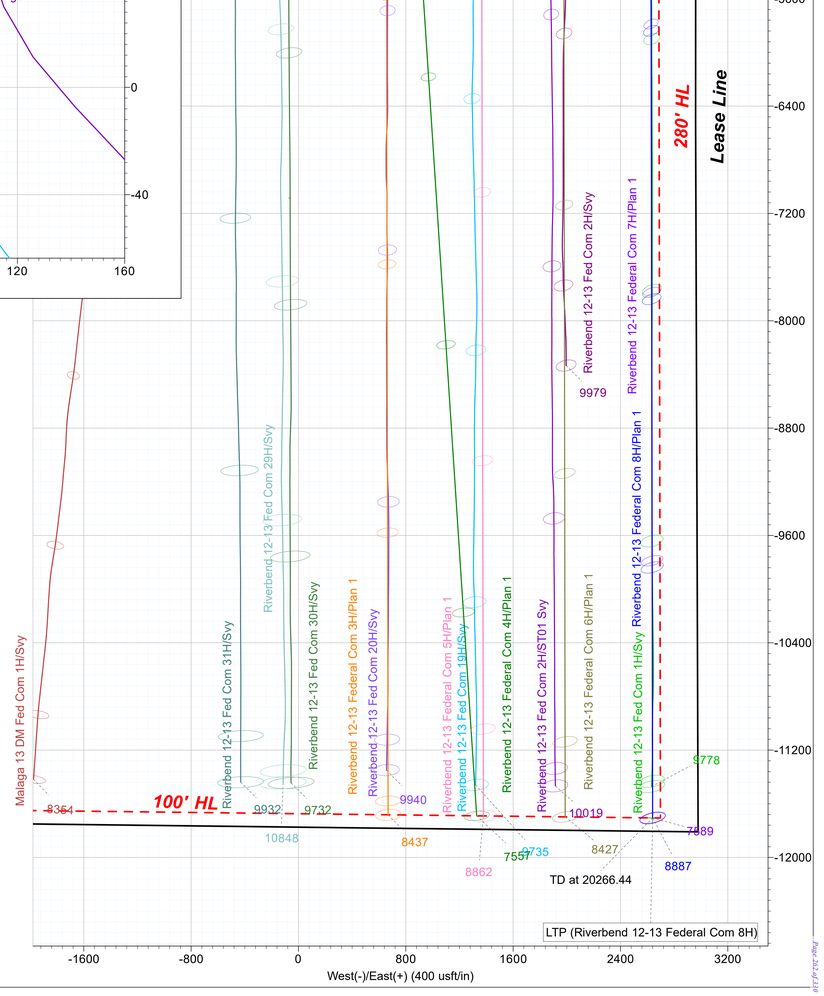
TVDPath	MDPath	Formation
407.00	407.00	Rustler
1952.00	1959.99	Top Salt
2679.00	2703.80	Base Salt/Lamar
2806.00	2833.70	Top Delaware Sands/Bell Canyon
3619.00	3665.53	Cherry Canyon
4817.00	4891.23	Brushy Canyon
5766.00	5862.17	Lower Brushy Canyon
6411.00	6522.08	Bone Spring Lime
7361.00	7493.06	1st Bone Spring Sand
8048.00	8181.80	2nd Bone Spring Sand
8541.00	8683.06	3rd Bone Spring Carb
8807.00	9062.10	Harkey SS
8887.00	9445.60	Harkey LZ

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Riverbend 12-13 Federal Com 8H)	0.00	-1289.34	2620.46	419011.34	634168.93	32.1515851	-104.0333716
LTP (Riverbend 12-13 Federal Com 8H)	0.00	-11705.04	2639.88	408595.64	634188.35	32.1229532	-104.0334026







RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR
04-29-25

N
Prevailing Winds

Edge of Existing Disturbance
Existing Tank (Typ.)
Existing Power Pole (Typ.)
Existing Pipeline
Existing Equipment
Edge of Existing Pad
Existing Topsoil Stockpile
Existing Pipelines
Existing Building
Existing Equipment
Approx. Center of Pod (NAD 83)
Lat: 32°09'19.43"
Long: -104°02'29.88"
Existing Pipelines
Existing Power Line
Existing Pipelines
Existing Road
Existing Anchor (Typ.)
50' Buffer
Cut/Fill Transition Line (Typ.)
Proposed Pad Expansion
Approx. Toe of Fill Slope
Approximate Topsoil Area
Existing 20H
Existing 19H
Existing 2H
Existing 1H

N01°19'54"E
278'
279'
139'
380' (Typ.)
380'
180'
178'
181'
120'
60'
127'
63'
62'
75'
50'
40'
140'
20' 20' 20' 20' 20'

SHL SHL SHL SHL SHL SHL
3H 5H 4H 6H 8H 7H

1 F-1.2' El. 33.1'
2 C-0.4' El. 34.7'
3 F-3.5' El. 30.8'
4 F-3.4' El. 30.9'

"A" "B" "C"

2926 2928 2930 2932 2934 2936 2938 2940

PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:
- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

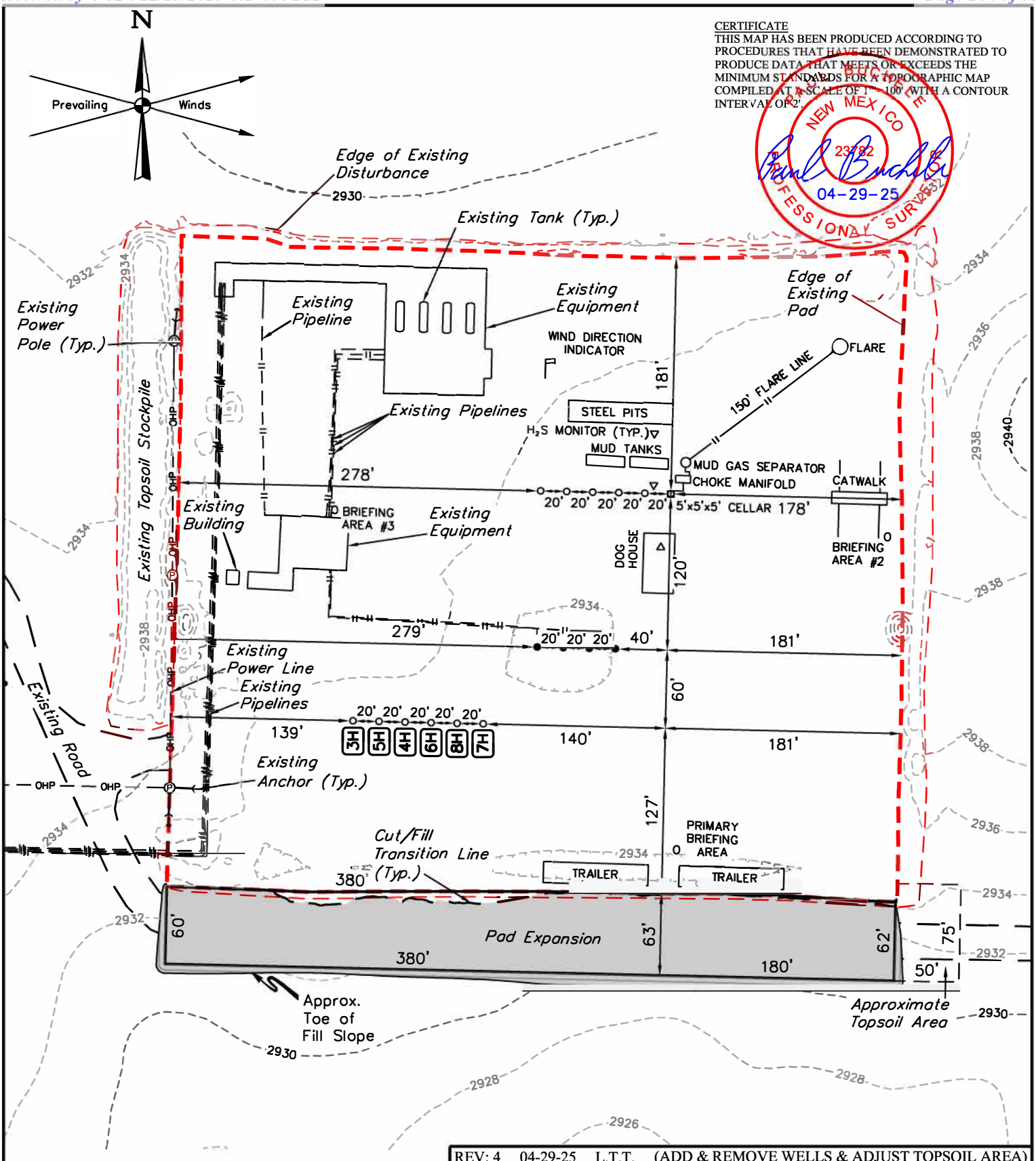
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 4 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 7/10/2025

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: _____

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
Riverbend 12-13 Fed Com 8H		Sec 1 T25S, R28E	1147 FSL/2362 FWL	1550	3100	4106

IV. Central Delivery Point Name: Riverbend CTB [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
Riverbend 12-13 Fed Com 8H		5/4/2027	9/14/2027	11/16/2027	1/15/2028	1/15/2028

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:	Shelly Bowen
Printed Name:	Shelly Bowen
Title:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	5/14/2025
Phone:	432/6201644

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

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

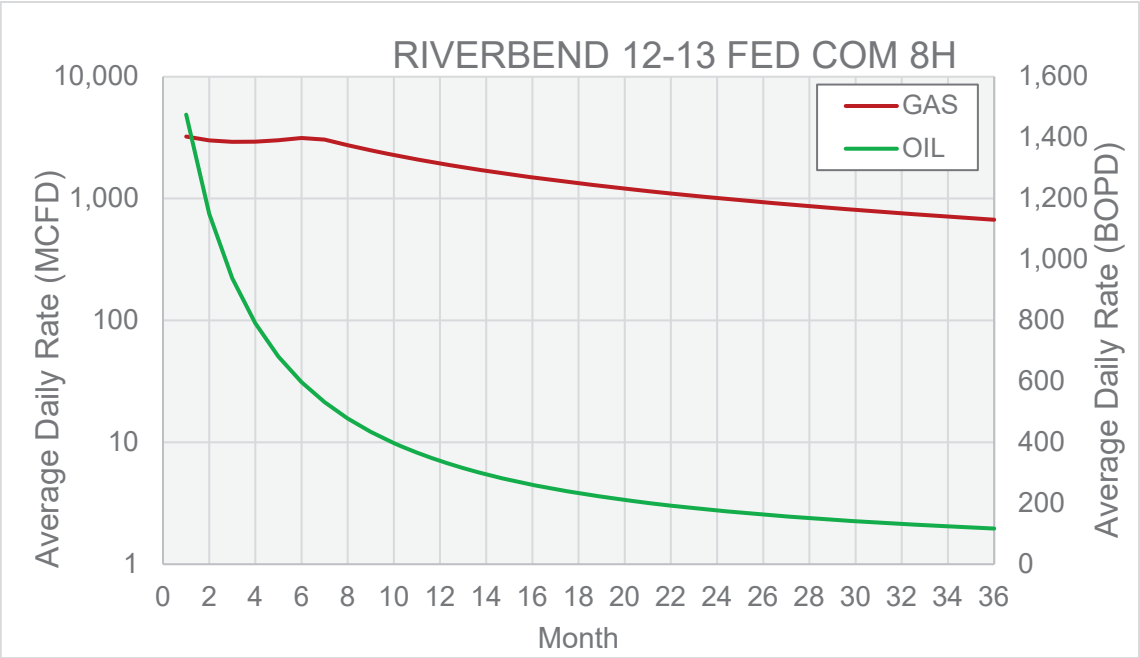
From State of New Mexico, Natural Gas Management Plan

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

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

RIVERBEND 12-13 FED COM 8H	RIVERBEND 12-13 FED COM 8H
GAS MCFD	OIL BOPD
3,225	1,475
2,994	1,150
2,911	938
2,921	790
3,000	681
3,135	597
3,040	531
2,734	478
2,482	434
2,271	397
2,091	366
1,937	339
1,803	315
1,686	295
1,582	277
1,490	260
1,407	246
1,333	233
1,266	221
1,205	211
1,149	201
1,098	192
1,051	184
1,008	176
968	169
931	163
897	157
865	151
835	146
807	141
780	136
756	132
732	128
710	124
690	121
670	117


RIVERBEND 12-13 FED COM 8H
GAS
OIL
Average Daily Rate (MCFD)
Average Daily Rate (BOPD)
Month
10,000
1,000
100
10
1
1,600
1,400
1,200
1,000
800
600
400
200
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

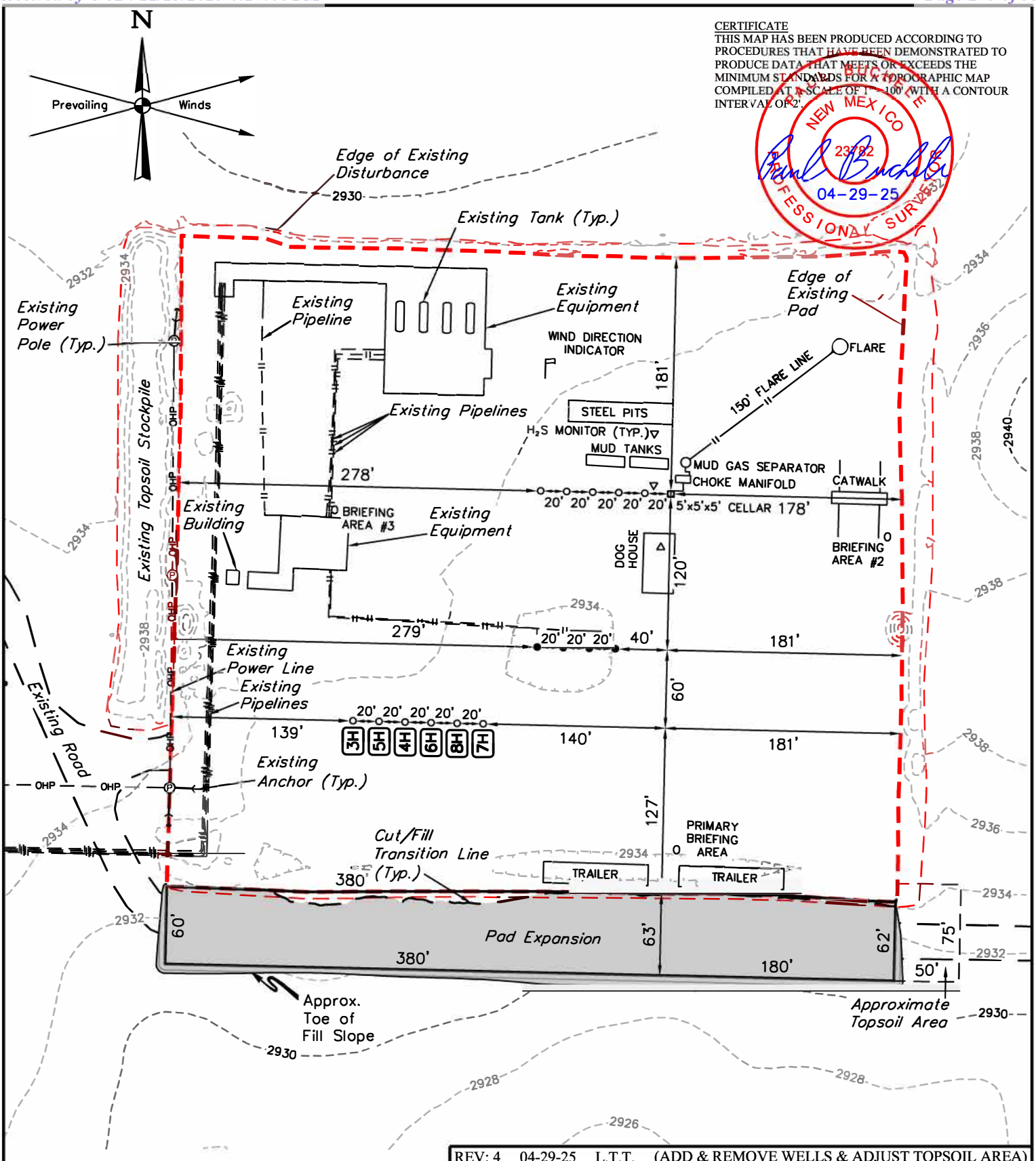
- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.



REV: 4 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

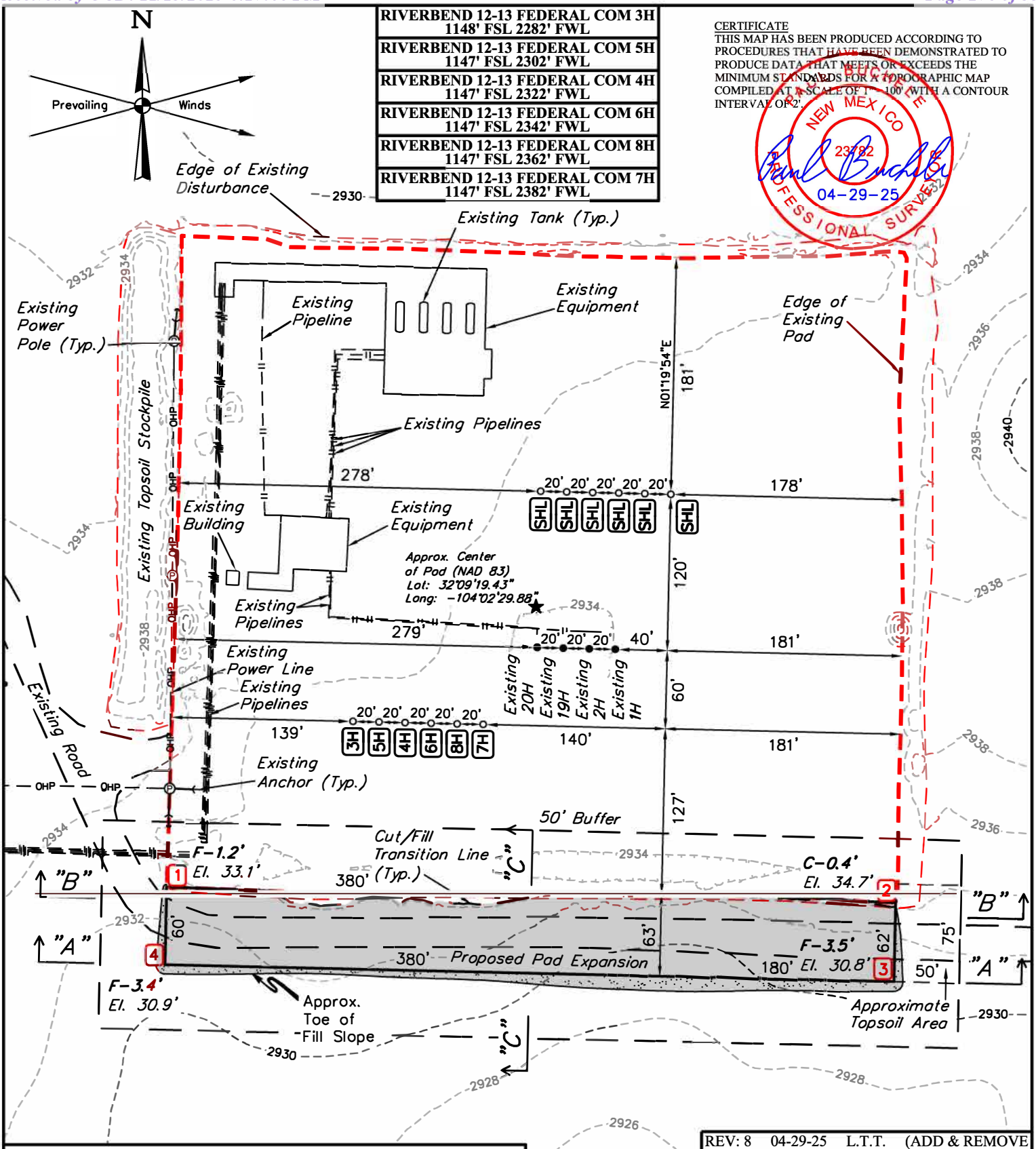
SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 04-29-25



PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 7/10/2025

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: _____

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
Riverbend 12-13 Fed Com 8H		Sec 1 T25S, R28E	1147 FSL/2362 FWL	1550	3100	4106

IV. Central Delivery Point Name: Riverbend CTB [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
Riverbend 12-13 Fed Com 8H		5/4/2027	9/14/2027	11/16/2027	1/15/2028	1/15/2028

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:	Shelly Bowen
Printed Name:	Shelly Bowen
Title:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	5/14/2025
Phone:	432/6201644

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

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

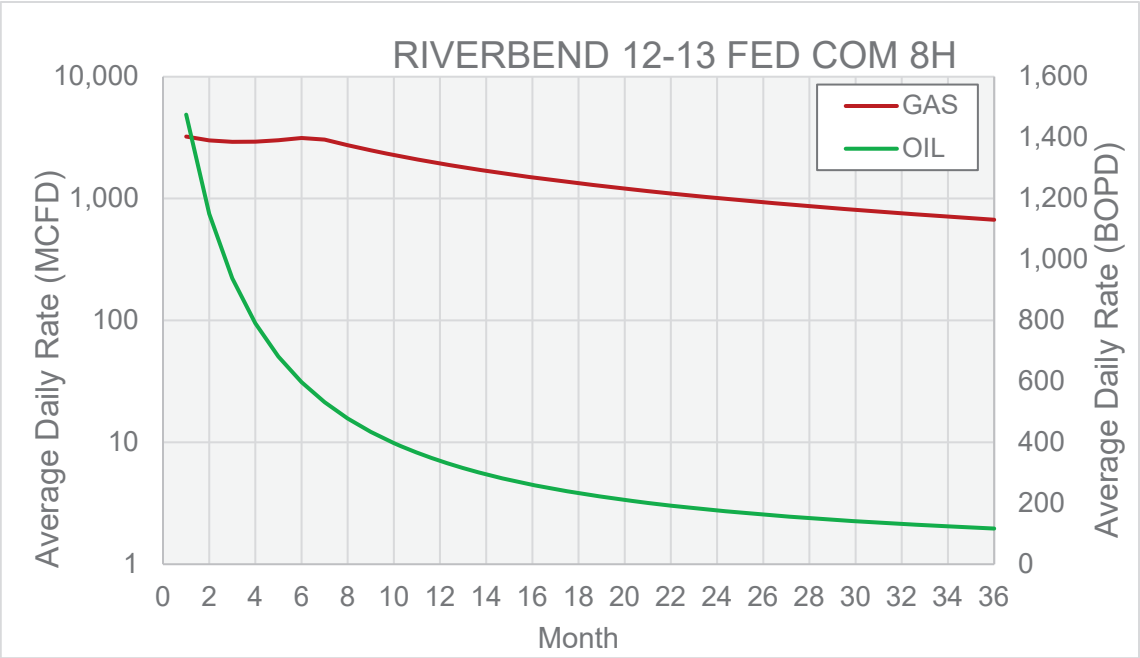
From State of New Mexico, Natural Gas Management Plan

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

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

RIVERBEND 12-13 FED COM 8H	RIVERBEND 12-13 FED COM 8H
GAS MCFD	OIL BOPD
3,225	1,475
2,994	1,150
2,911	938
2,921	790
3,000	681
3,135	597
3,040	531
2,734	478
2,482	434
2,271	397
2,091	366
1,937	339
1,803	315
1,686	295
1,582	277
1,490	260
1,407	246
1,333	233
1,266	221
1,205	211
1,149	201
1,098	192
1,051	184
1,008	176
968	169
931	163
897	157
865	151
835	146
807	141
780	136
756	132
732	128
710	124
690	121
670	117


RIVERBEND 12-13 FED COM 8H
GAS
OIL
Average Daily Rate (MCFD)
Average Daily Rate (BOPD)
Month
10,000
1,000
100
10
1
1,600
1,400
1,200
1,000
800
600
400
200
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

Standard New Mexico Variances

Variance Request #1: Skid Rig after Cementing Surface Casing

Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, and both lead and tail slurries have achieved 500 psi compressive strength. While cement cures, the surface casing of the subject well will be suspended in the well by a mandrel and landing ring system, which is independent from the rig and ensures that casing remains centered while the rig is active on other wells. Before skidding the rig, a TA cap is installed on the subject well.

Variance Request #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

Variance Request #4: Utilize Co-Flex Choke Line

Coterra requests approval to utilize a co-flex choke line between the BOP and choke manifold. Certification for the proposed co-flex choke line is attached. The choke line is not required by the manufacturer to be anchored. In the event the specific co-flex choke line is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

AustinHOSE

CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B №: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3″×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items	Inspection results
Appearance Checking	In accordance with API Spec 16C 3rd edition
Size and Lengths	In accordance with API Spec 16C 3rd edition
Dimensions and Tolerances	In accordance with API Spec 16C 3rd edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 6A 21st edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 17D 3rd edition
Hydrostatic Testing	In accordance with API Spec 16C 3rd edition
product Marking	In accordance with API Spec 16C 3rd edition
Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition
Remarks	16C-0403

Approver	Jane C	Auditor	Alice D	Inspector	Leo W

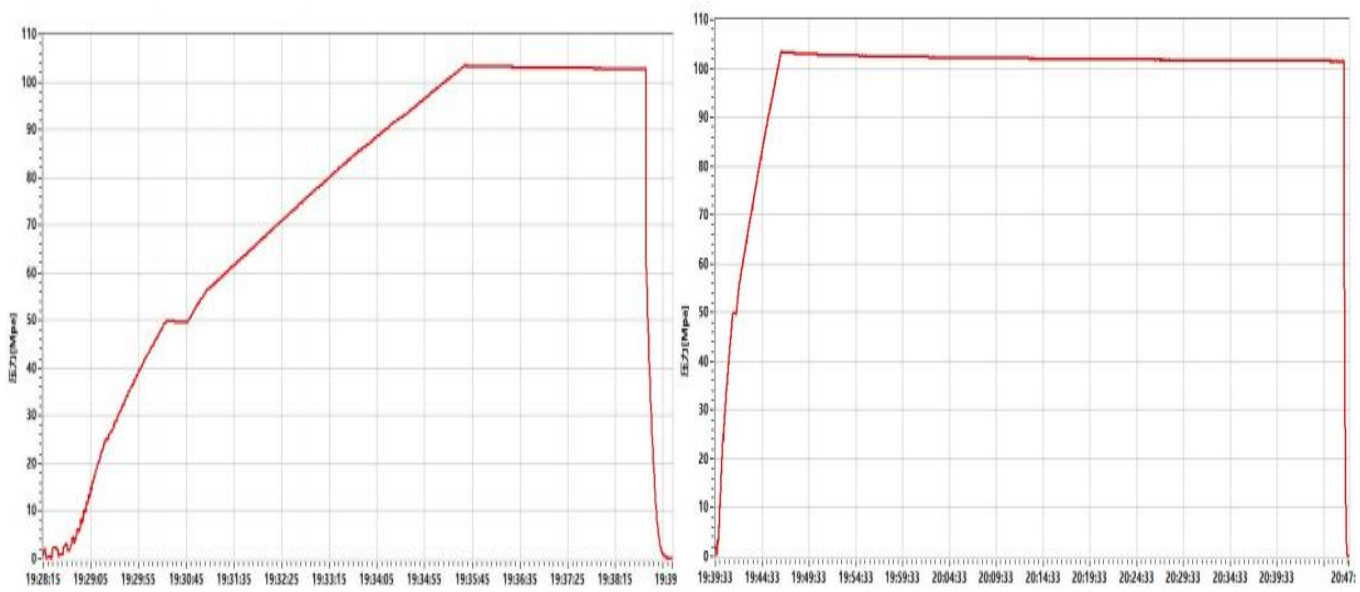
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28 №: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3rd edition
Product Specification	3″×10000psi×35ft（10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing：



Conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition 16C-0403				
Approver	Jane C	Auditor	Alice D	Inspector	Leo W

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name：Choke And Kill Hose

Product Specification：3″×10000psi×35ft（10.67m）

Serial Number：VTC-7660257

customer number：PO890145-001

End Connections: 4-1/16″×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager： Jane C Date:Sep 3, 2024

16C-0403

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	LETONE

Standard New Mexico Variances

Variance Request #1: Skid Rig after Cementing Surface Casing

Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, and both lead and tail slurries have achieved 500 psi compressive strength. While cement cures, the surface casing of the subject well will be suspended in the well by a mandrel and landing ring system, which is independent from the rig and ensures that casing remains centered while the rig is active on other wells. Before skidding the rig, a TA cap is installed on the subject well.

Variance Request #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

Variance Request #4: Utilize Co-Flex Choke Line

Coterra requests approval to utilize a co-flex choke line between the BOP and choke manifold. Certification for the proposed co-flex choke line is attached. The choke line is not required by the manufacturer to be anchored. In the event the specific co-flex choke line is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

AustinHOSE

CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B №: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3″×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items	Inspection results
Appearance Checking	In accordance with API Spec 16C 3rd edition
Size and Lengths	In accordance with API Spec 16C 3rd edition
Dimensions and Tolerances	In accordance with API Spec 16C 3rd edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 6A 21st edition
End Connections: 4-1/16″×10000psi Integral flange for sour gas service	In accordance with API Spec 17D 3rd edition
Hydrostatic Testing	In accordance with API Spec 16C 3rd edition
product Marking	In accordance with API Spec 16C 3rd edition
Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition
Remarks	16C-0403

Approver	Jane C	Auditor	Alice D	Inspector	Leo W

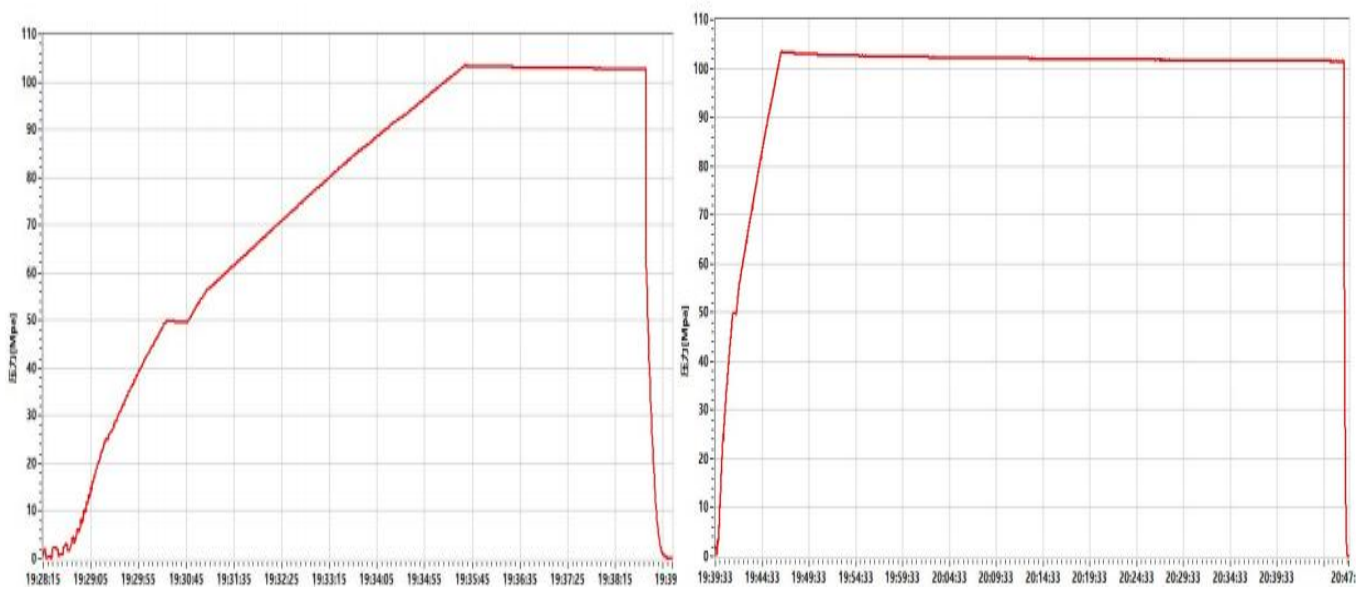
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28 №: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3rd edition
Product Specification	3″×10000psi×35ft（10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing：



Conclusion	The inspected items meet standard requirements of API Spec 16C 3rd edition 16C-0403				
Approver	Jane C	Auditor	Alice D	Inspector	Leo W

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name：Choke And Kill Hose

Product Specification：3″×10000psi×35ft（10.67m）

Serial Number：VTC-7660257

customer number：PO890145-001

End Connections: 4-1/16″×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager： Jane C Date:Sep 3, 2024

16C-0403

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	LETONE

AFMSS

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

SUPO Data Report

10/15/2025

APD ID: 10400105550 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

RIVERBEND_12_13_FED_COM_W2E2_road_access_20250826153231.pdf
RIVERBEND_12_13_FED_COM_W2E2_road_access_20250912071809.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** YES

ROW ID(s)

ID: 140042

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Existing Well map Attachment:

RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250826153252.pdf
RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250912071828.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: An existing battery will be utilized.

Production Facilities map:

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250826153443.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250912071844.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: MUNICIPAL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

City: Carlsbad

Water source permit type: WATER RIGHT

Permit Number:

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 5000

Source volume (acre-feet): 0.64446548

Source volume (gal): 210000

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Water source and transportation

Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250826153534.pdf
Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250912071903.pdf

Water source comments:

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: NO

Construction Materials description:

Construction Materials source location

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.
Amount of waste: 15000 barrels

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Haul to R360 Environmental Solutions, 4507 Carlsbad Hwy, Hobbs, NM 88240

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 32500 pounds

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A licensed 3rd party hauls trash to Lea County Landfill

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 300 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose human waste.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

Cuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250826153608.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250912071934.pdf

Comments:

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** Riverbend 12-13 Fed Com

Multiple Well Pad Number: W2E2

Recontouring

RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250826153629.pdf
RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250912071951.pdf

Drainage/Erosion control construction: To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

Drainage/Erosion control reclamation: All disturbed and re-contoured areas would be reseeded according to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Well pad proposed disturbance (acres): 8.112	**Well pad interim reclamation (acres):** 2.589	**Well pad long term disturbance (acres):** 5.523
Road proposed disturbance (acres):	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 8.112	**Total interim reclamation:** 2.589	**Total long term disturbance:** 5.523

Disturbance Comments:

Reconstruction method: After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Topsoil redistribution: The original stock piled topsoil, if any, will be spread evenly over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pad, production facilities, roads, pipelines, and power line corridors as close as possible to the original topography. The location will then be seeded.

Soil treatment: The soil surface would be prepared to provide a seedbed for reestablishment of desirable vegetation. Establish control of erosion and invasion of non-native plants to reestablish plant community.
Existing Vegetation at the well pad: N/A

Existing Vegetation at the well pad

Existing Vegetation Community at the road: N/A

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: N/A

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: N/A

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: N/A

Weed treatment plan

Monitoring plan description: N/A

Monitoring plan

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW

SUPO Additional Information: Onsite conducted on August 5, 2024 with Brendan Harris & Brandon Carico,

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Ellen Trout. Casey Jones, Shelly Bowen onsite for Coterra.

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4	08-16-24	D.J.S.	(PAD EXPANSION)

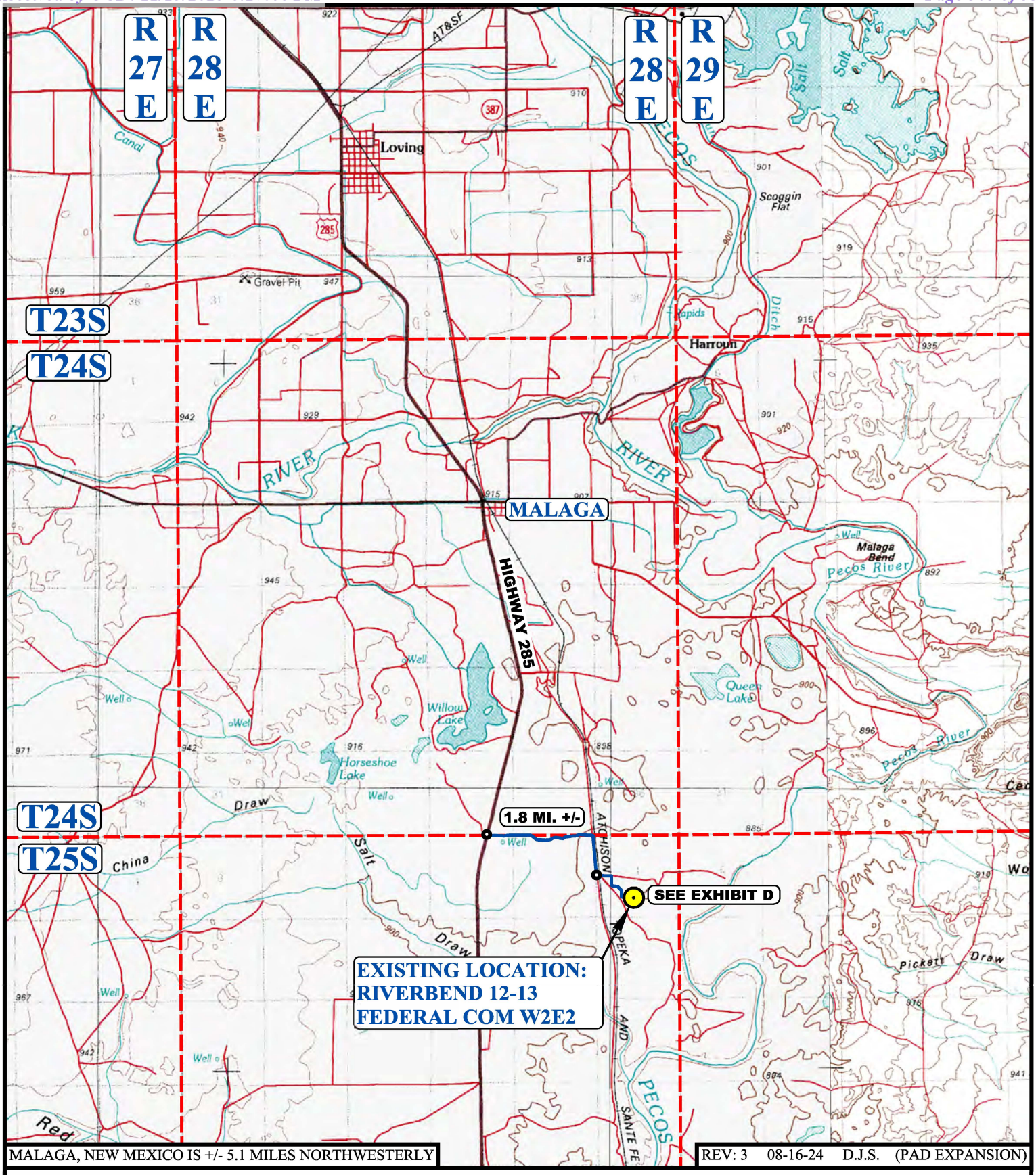
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	

ROAD DESCRIPTION **EXHIBIT A**



MALAGA, NEW MEXICO IS +/- 5.1 MILES NORTHWESTERLY

REV: 3 08-16-24 D.J.S. (PAD EXPANSION)

LEGEND:

⊙ **EXISTING LOCATION**

N

CIMAREX ENERGY CO.

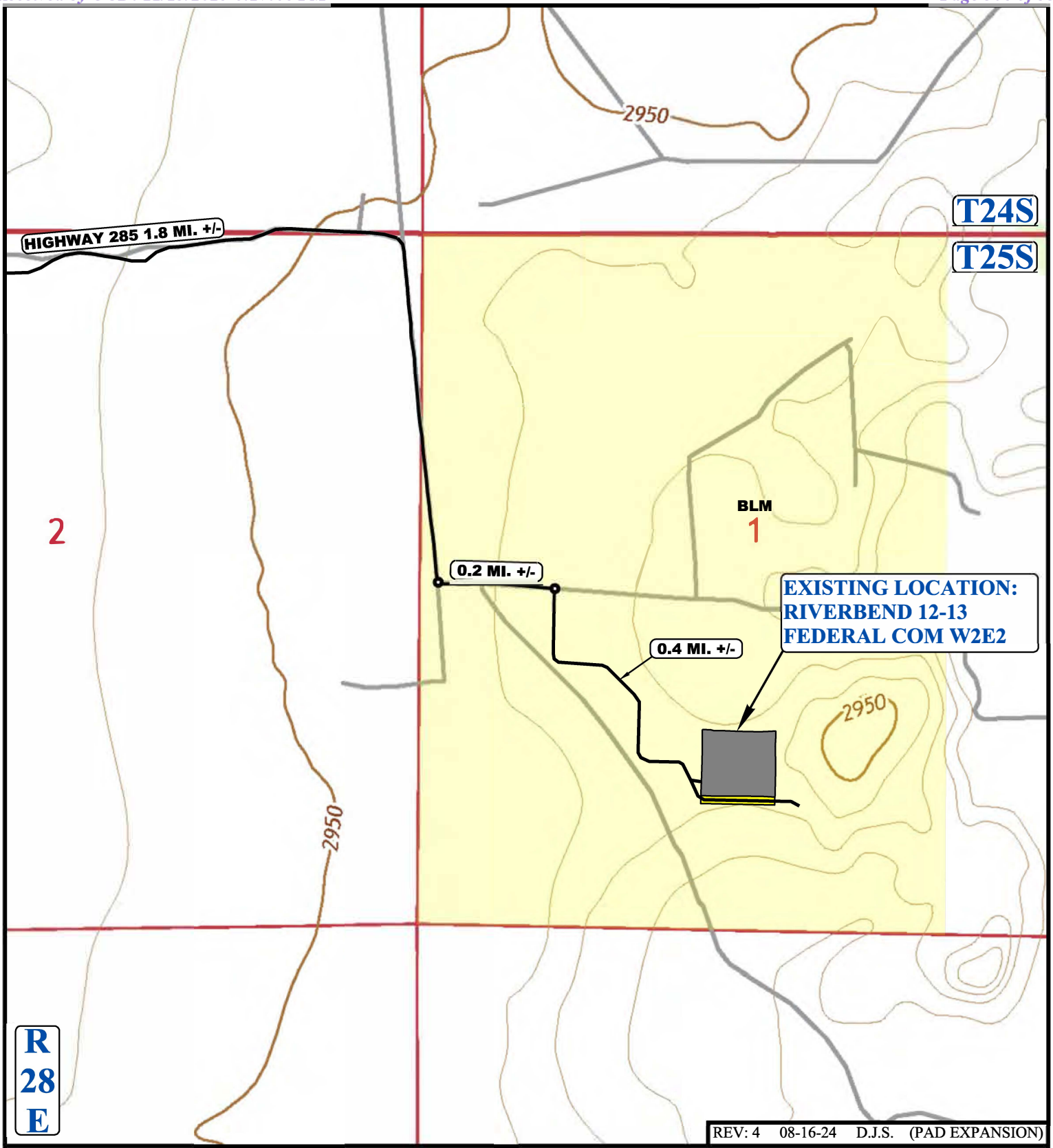
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000

PUBLIC ACCESS ROAD MAP | **EXHIBIT B**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000

NEW ROAD MAP **EXHIBIT D**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4	08-16-24	D.J.S.	(PAD EXPANSION)

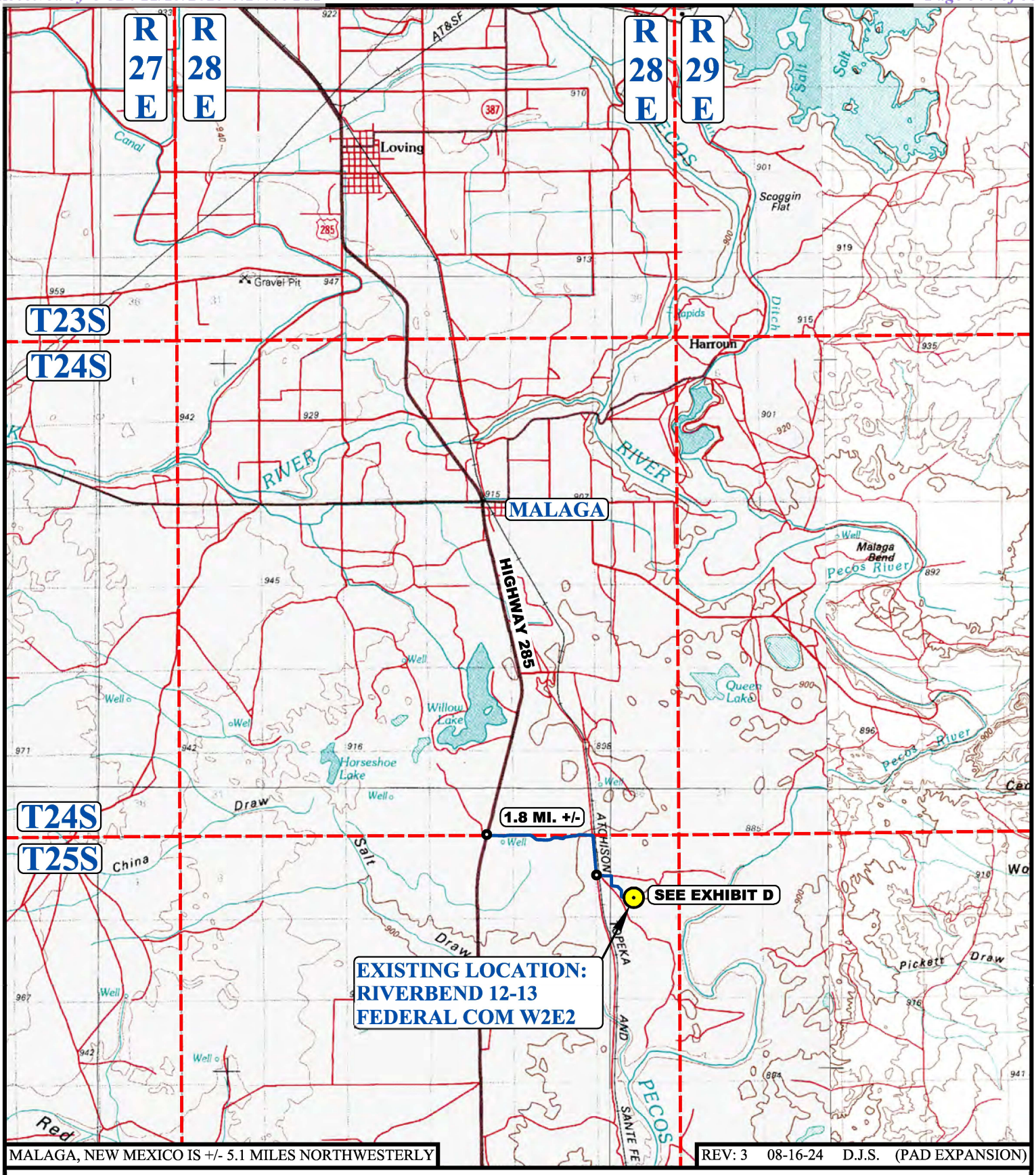
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	

ROAD DESCRIPTION **EXHIBIT A**



MALAGA, NEW MEXICO IS +/- 5.1 MILES NORTHWESTERLY

REV: 3 08-16-24 D.J.S. (PAD EXPANSION)

LEGEND:

⊙ **EXISTING LOCATION**

N

CIMAREX ENERGY CO.

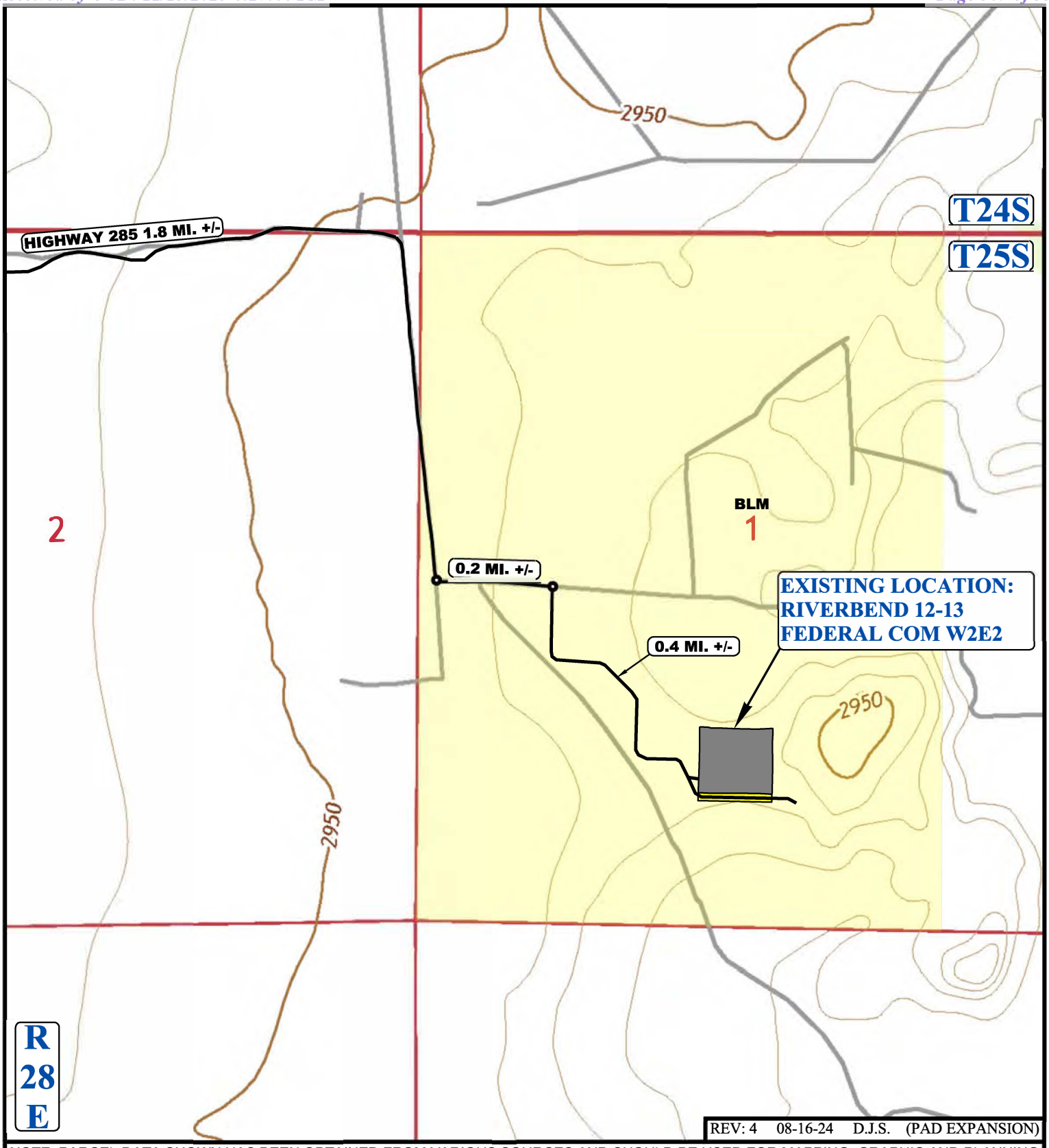
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000

PUBLIC ACCESS ROAD MAP | **EXHIBIT B**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

N

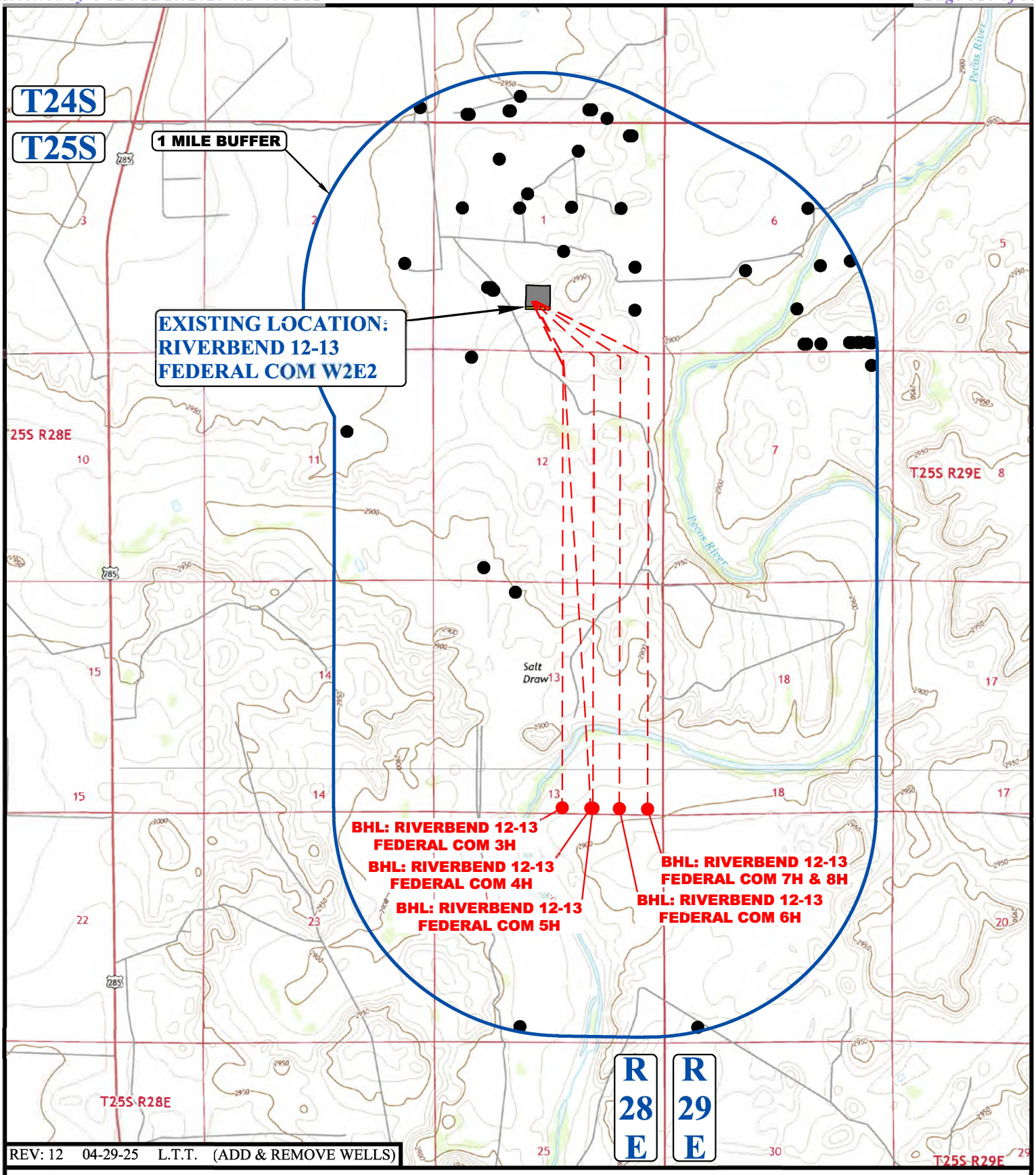
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000

NEW ROAD MAP **EXHIBIT D**

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 12 04-29-25 L.T.T. (ADD & REMOVE WELLS)

LEGEND:

● EXISTING WELLS

N

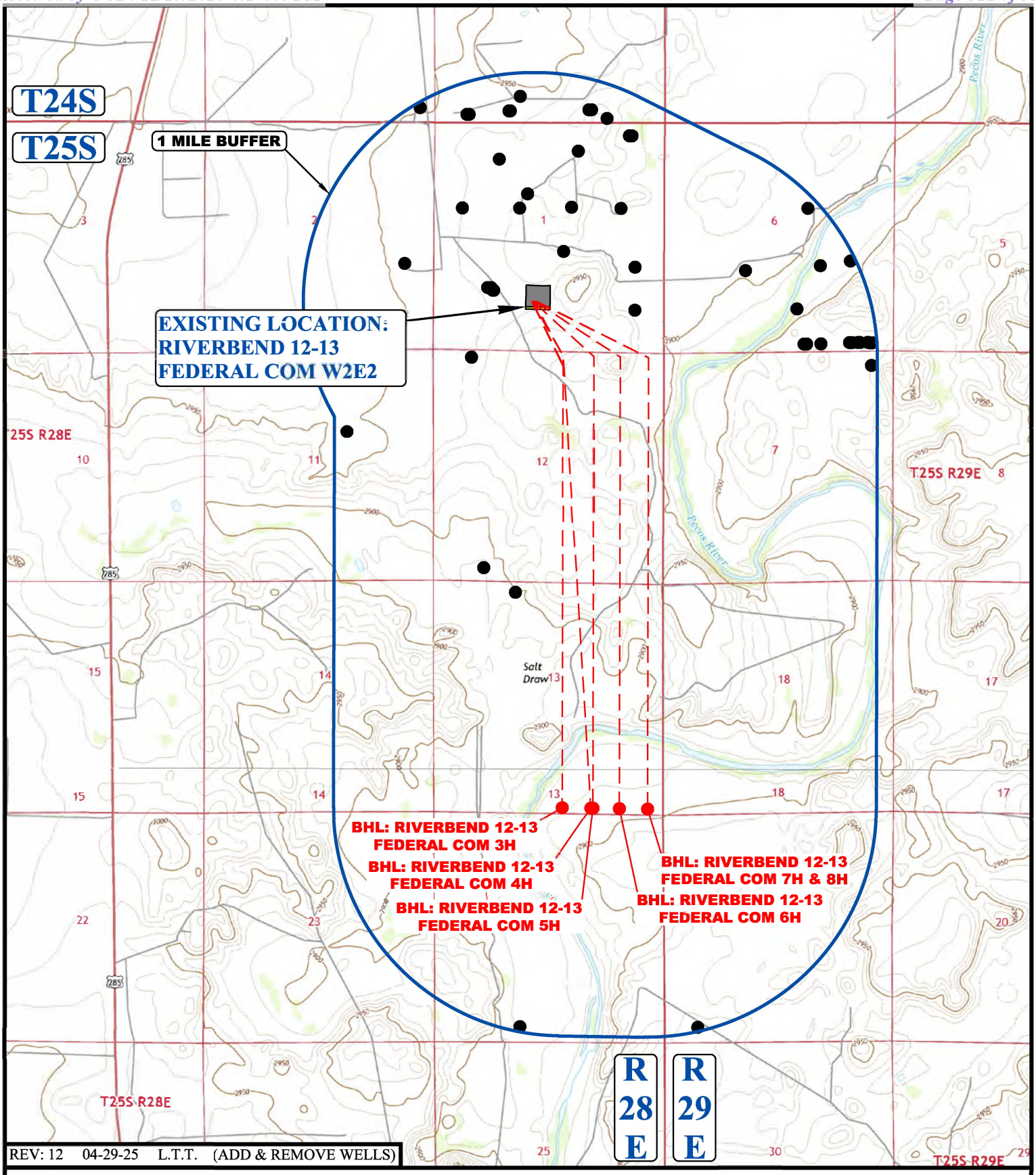
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000
ONE MILE RADIUS PLAT			EXHIBIT E

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 12 04-29-25 L.T.T. (ADD & REMOVE WELLS)

LEGEND:

● EXISTING WELLS

N

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000
ONE MILE RADIUS PLAT			EXHIBIT E

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 Paul Buchli 04-29-25 PROFESSIONAL SURVEYOR

N

Prevailing Winds

Edge of Existing Disturbance

Existing Tank (Typ.)

Existing Power Pole (Typ.)

Existing Pipeline

Existing Equipment

Edge of Existing Pad

Existing Topsoil Stockpile

Existing Pipelines

Existing Building

Existing Equipment

Approx. Center of Pad (NAD 83)
Lat: 32°09'19.43"
Long: -104°02'29.88"

Existing Pipelines

Existing Power Line

Existing Pipelines

Existing Road

Existing Anchor (Typ.)

50' Buffer

Cut/Fill Transition Line (Typ.)

F-1.2'
El. 33.1'

C-0.4'
El. 34.7'

F-3.5'
El. 30.8'

F-3.4'
El. 30.9'

380' Proposed Pad Expansion

Approx. Toe of Fill Slope

Approximate Topsoil Area

N01°19'54"E

278' 178' 279' 181' 139' 140' 181' 380' 180' 50'

20' 20' 20' 20' 20'

SHL SHL SHL SHL SHL SHL

3H 5H 4H 6H 8H 7H

Existing 20H Existing 19H Existing 2H Existing 1H

181' 120' 60' 127' 63' 62' 75'

2926 2928 2930 2932 2934 2936 2938 2940

PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO — 23782 — Paul Buchli — 04-29-25 — PROFESSIONAL SURVEYOR

N

Prevailing Winds

Edge of Existing Disturbance

Existing Tank (Typ.)

Existing Power Pole (Typ.)

Existing Pipeline

Existing Equipment

Edge of Existing Pad

Existing Topsoil Stockpile

Existing Pipelines

Existing Building

Existing Equipment

Approx. Center of Pad (NAD 83)
Lat: 32°09'19.43"
Long: -104°02'29.88"

Existing Pipelines

Existing Power Line

Existing Pipelines

Existing Road

Existing Anchor (Typ.)

50' Buffer

Cut/Fill Transition Line (Typ.)

F-1.2'
El. 33.1'

C-0.4'
El. 34.7'

F-3.5'
El. 30.8'

F-3.4'
El. 30.9'

Approx. Toe of Fill Slope

380' Proposed Pad Expansion

Approximate Topsoil Area

N01°19'54"E

278' 20' 20' 20' 20' 20' 178' 181'

SHL SHL SHL SHL SHL SHL

279' 20' 20' 20' 40' 181' 120'

Existing 20H Existing 19H Existing 2H Existing 1H

139' 20' 20' 20' 20' 20' 140' 181' 60'

3H 5H 4H 6H 8H 7H

380' 63' 62' 75' 50' 127'

PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

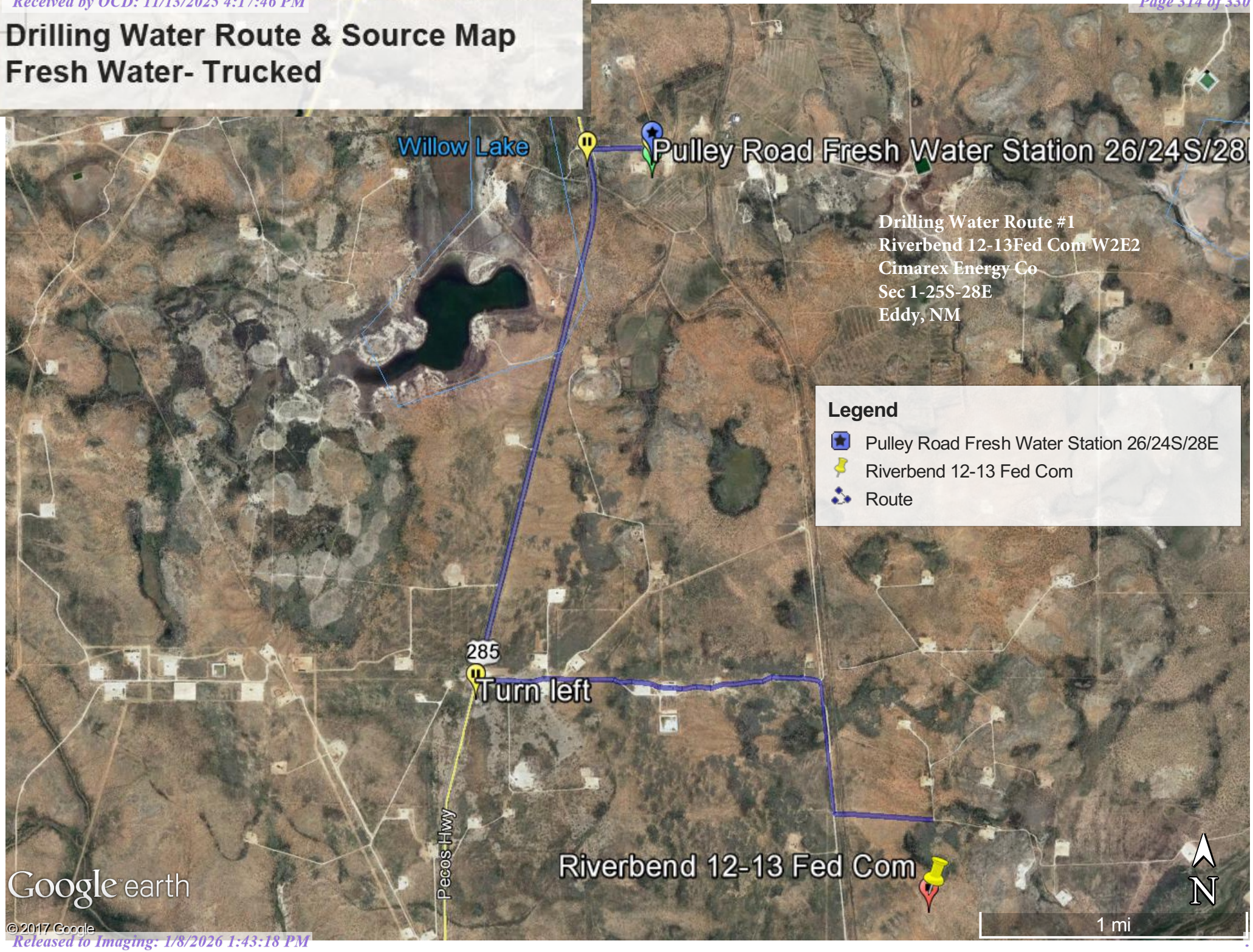
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

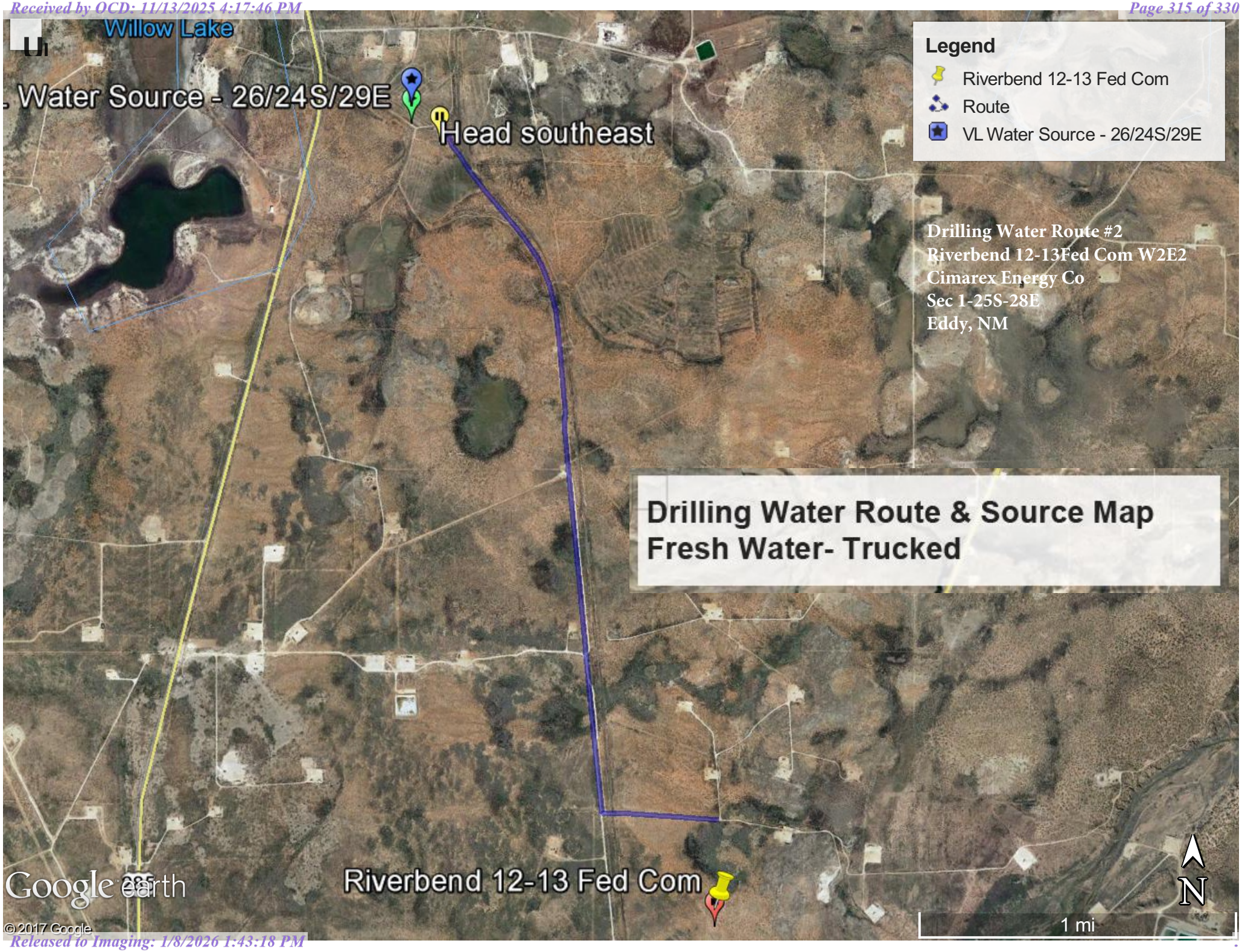
SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING

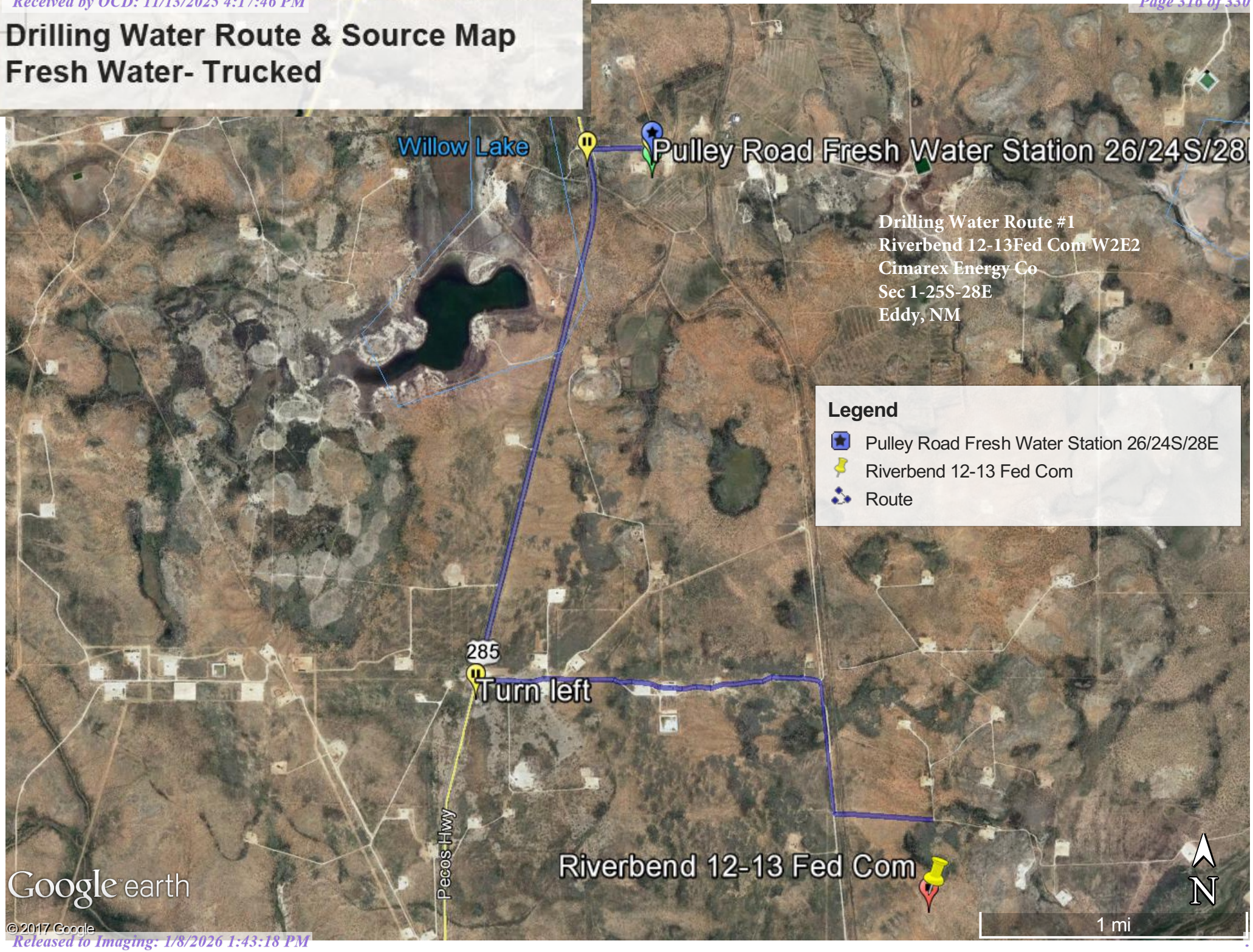
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

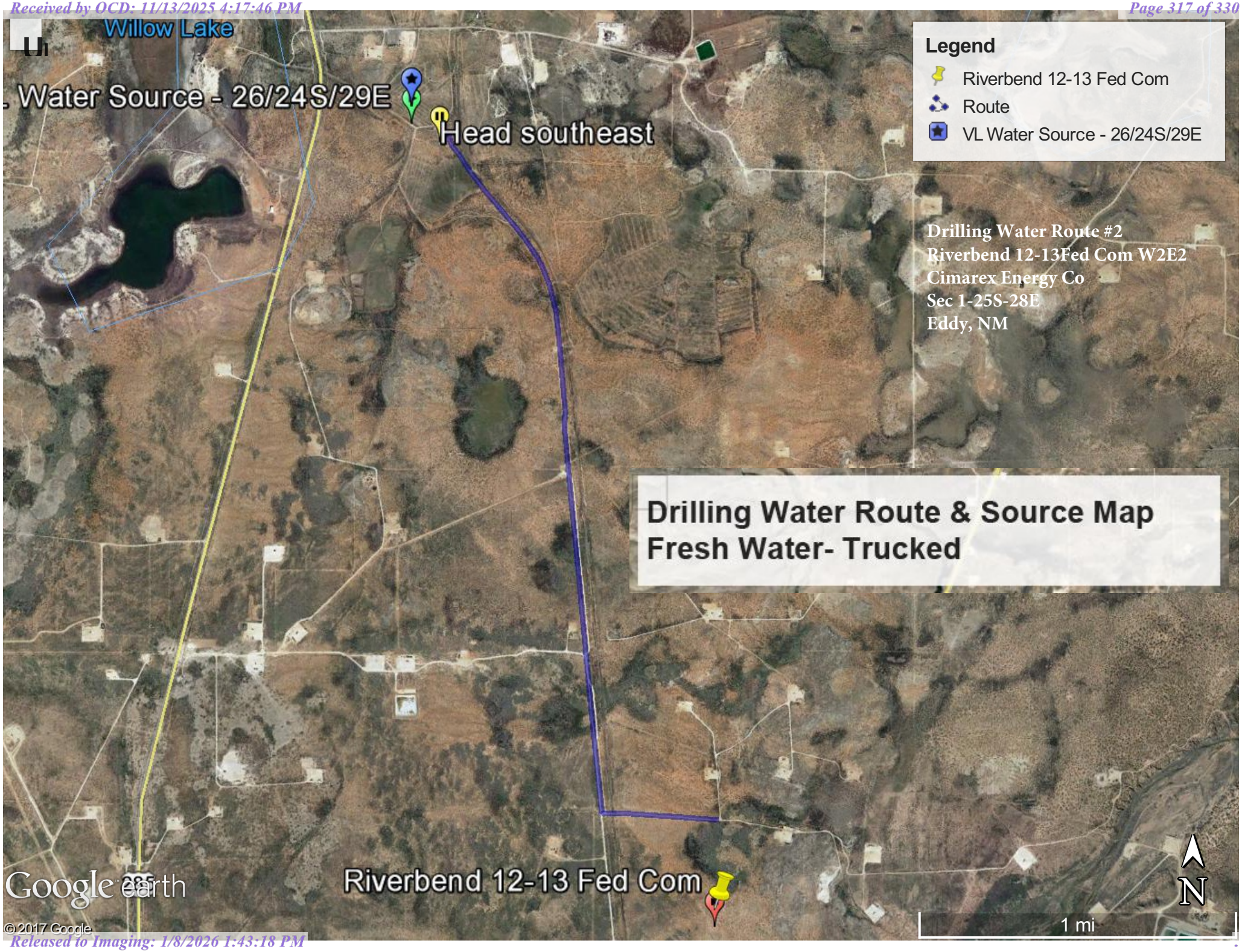
Drilling Water Route & Source Map
Fresh Water- Trucked




Willow Lake
Water Source - 26/24S/29E
Head southeast
Legend
Riverbend 12-13 Fed Com
Route
VL Water Source - 26/24S/29E
Drilling Water Route #2
Riverbend 12-13Fed Com W2E2
Cimarex Energy Co
Sec 1-25S-28E
Eddy, NM
Drilling Water Route & Source Map
Fresh Water- Trucked
Riverbend 12-13 Fed Com
Google earth
© 2017 Google
N
1 mi

Drilling Water Route & Source Map
Fresh Water- Trucked

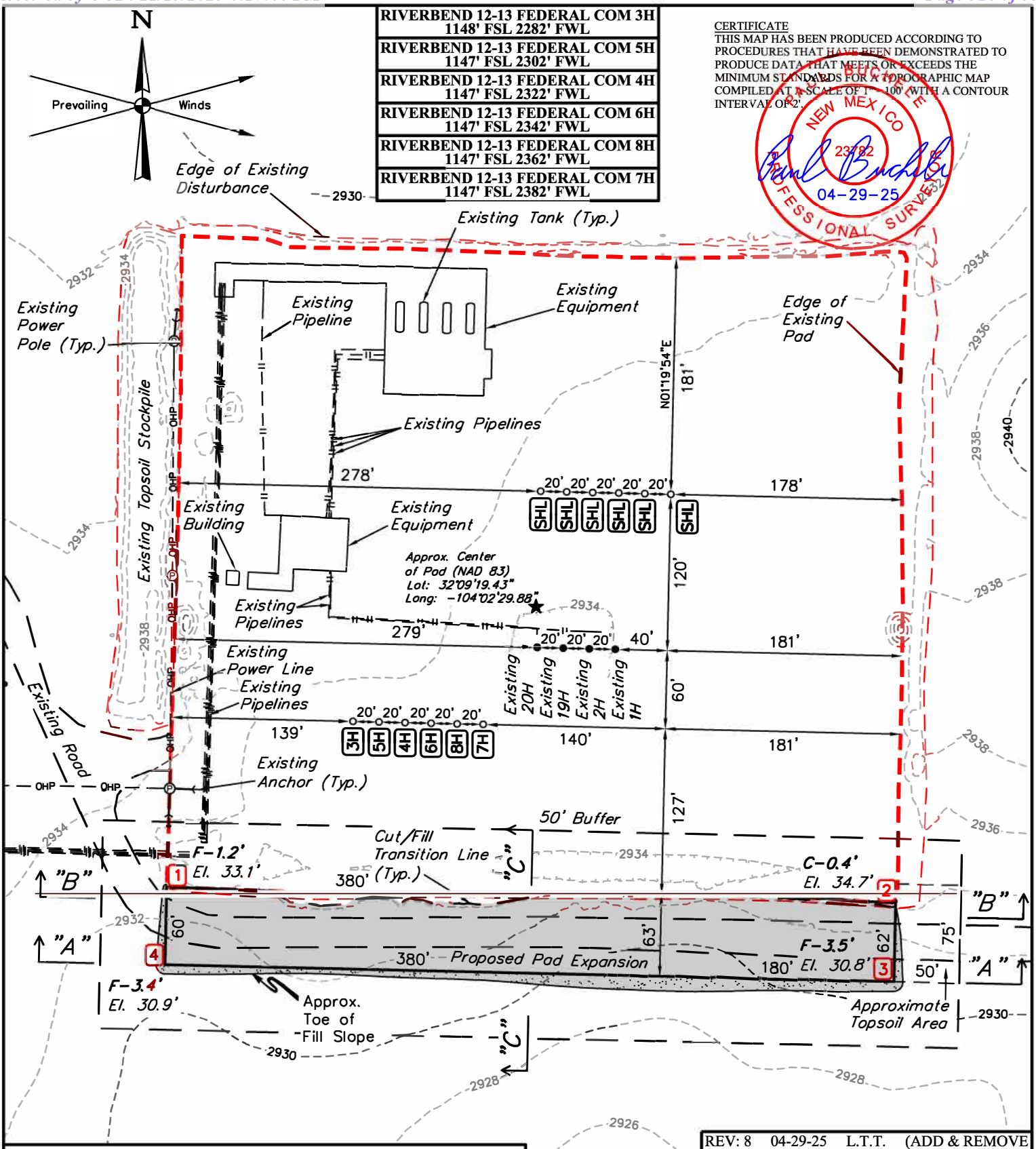



Willow Lake
Water Source - 26/24S/29E
Head southeast
Legend
Riverbend 12-13 Fed Com
Route
VL Water Source - 26/24S/29E
Drilling Water Route #2
Riverbend 12-13Fed Com W2E2
Cimarex Energy Co
Sec 1-25S-28E
Eddy, NM
Drilling Water Route & Source Map
Fresh Water- Trucked
Riverbend 12-13 Fed Com
Google earth
© 2017 Google
N
1 mi

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO — 23782 — Paul Buchli — 04-29-25 — PROFESSIONAL SURVEYOR



PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

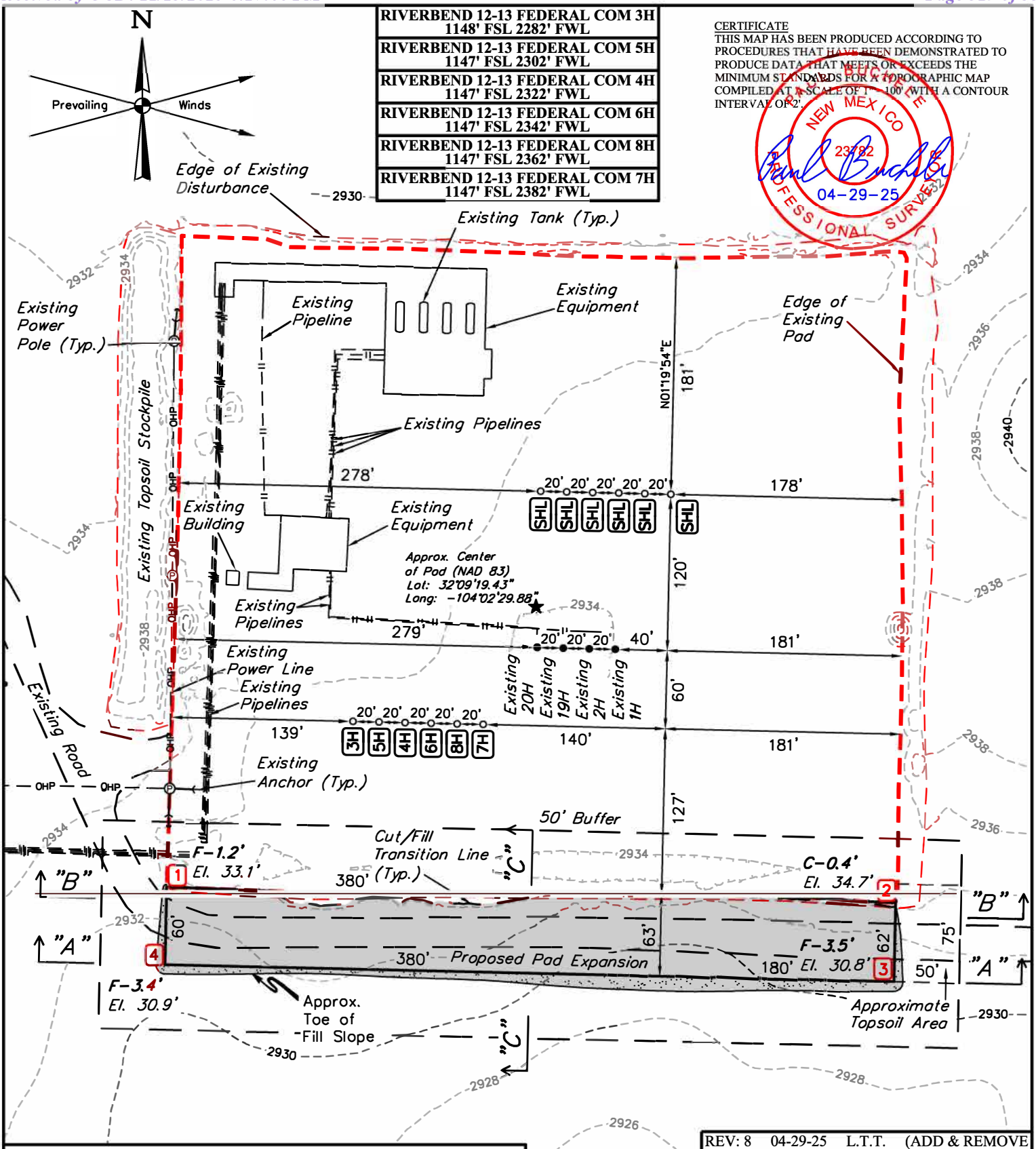
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
RIVERBEND 12-13 FEDERAL COM 4H 1147' FSL 2322' FWL
RIVERBEND 12-13 FEDERAL COM 6H 1147' FSL 2342' FWL
RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO — 23782 — Paul Buchli — 04-29-25 — PROFESSIONAL SURVEYOR



PAD EXPANSION FINISHED GRADE ELEVATION = **2934.3'**

REV: 8 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:
- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

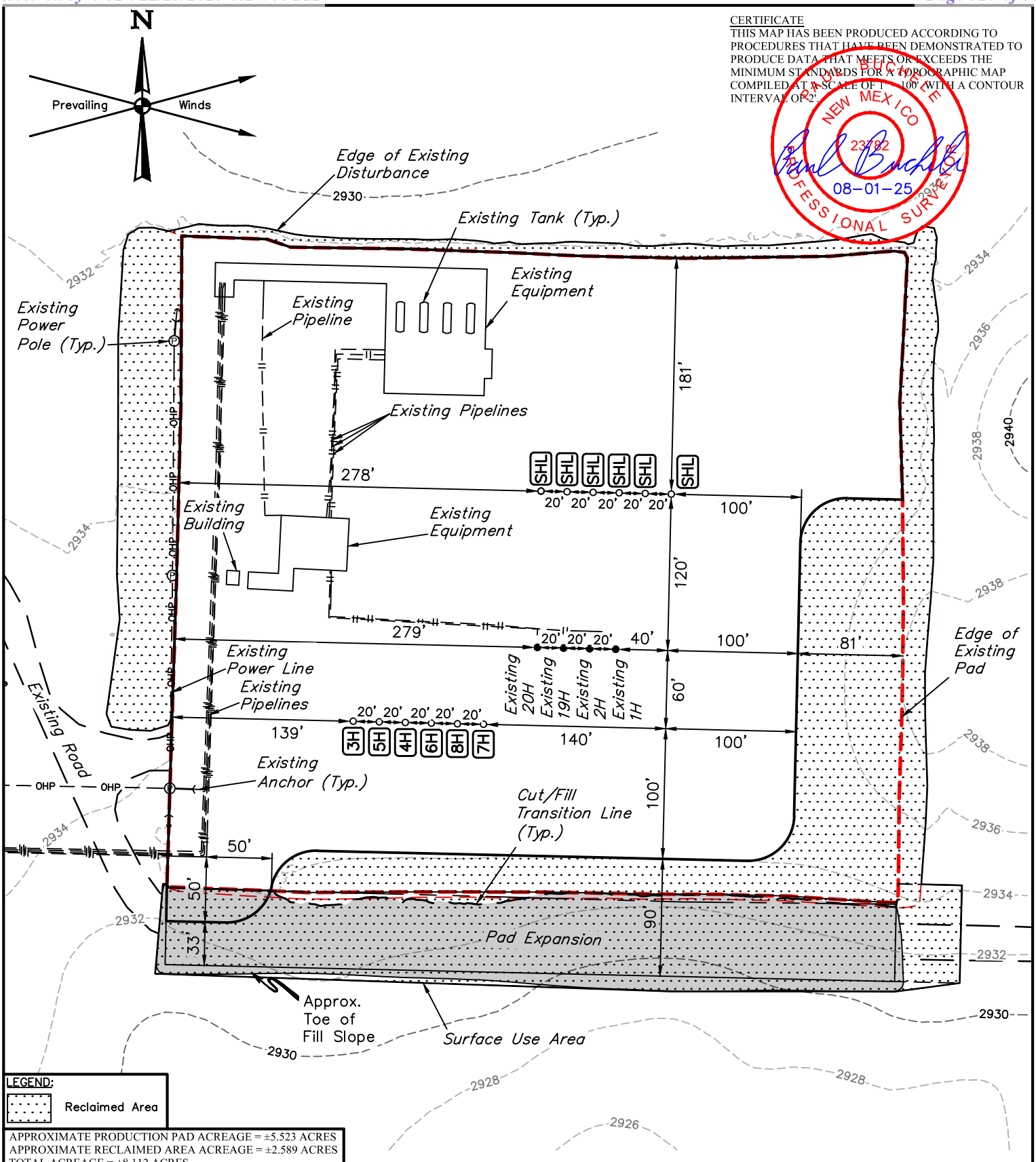
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

BUCKLE
NEW MEXICO
23782
PROFESSIONAL SURVEYOR
08-01-25

LEGEND:
Reclaimed Area

APPROXIMATE PRODUCTION PAD ACREAGE = ±5.523 ACRES
APPROXIMATE RECLAIMED AREA ACREAGE = ±2.589 ACRES
TOTAL ACREAGE = ±8.112 ACRES

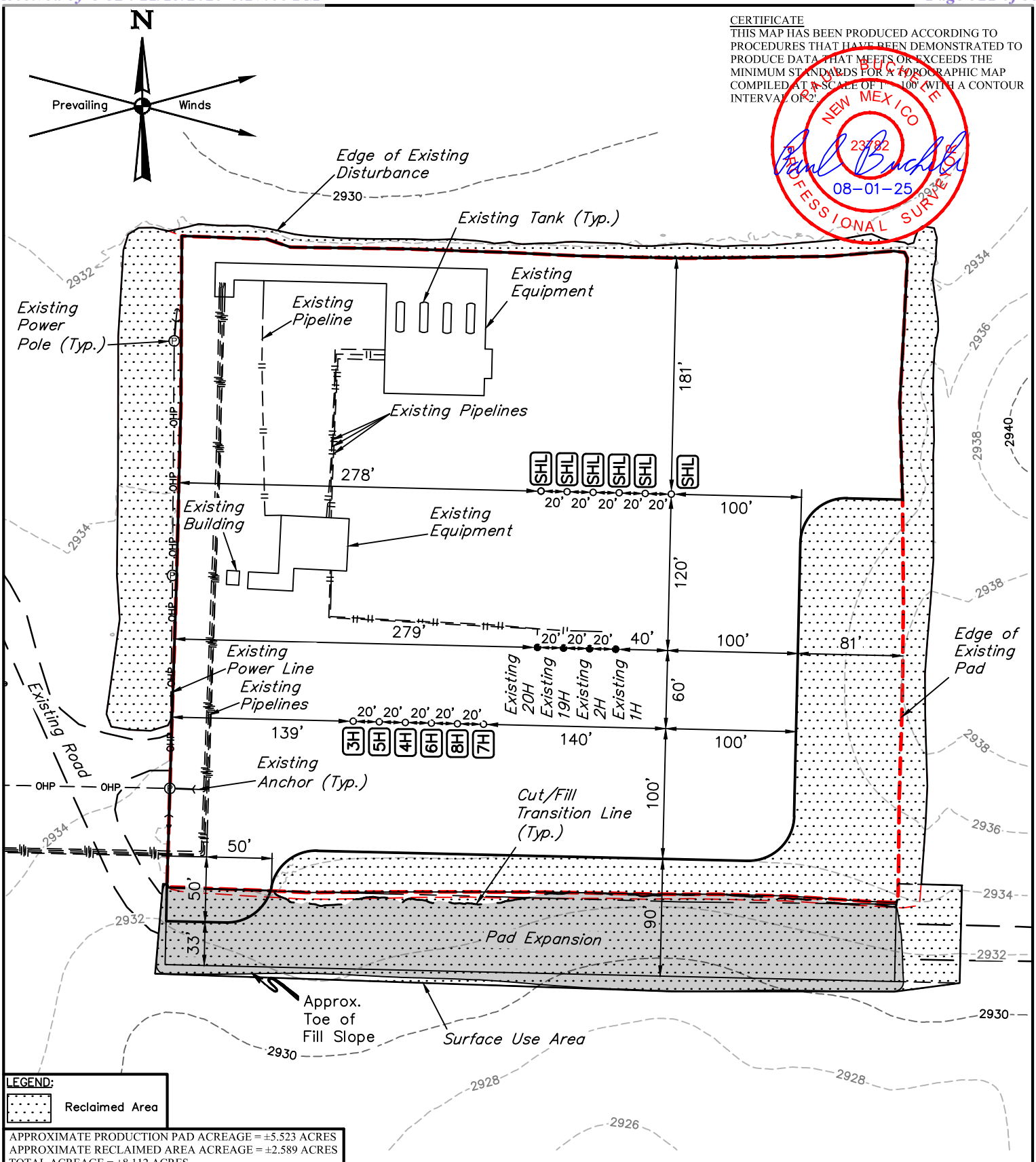
NOTES:
- Contours shown at 2' intervals.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM E2W2-E
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	N.R.	08-01-25	1" = 100'
RECLAMATION LAYOUT			EXHIBIT P

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 100' WITH A CONTOUR INTERVAL OF 2'.

BUCKLE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 08-01-25

LEGEND:
Reclaimed Area

APPROXIMATE PRODUCTION PAD ACREAGE = ±5.523 ACRES
APPROXIMATE RECLAIMED AREA ACREAGE = ±2.589 ACRES
TOTAL ACREAGE = ±8.112 ACRES

NOTES:
- Contours shown at 2' intervals.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM E2W2-E
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	N.R.	08-01-25	1" = 100'
RECLAMATION LAYOUT			EXHIBIT P

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

AFMSS

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

PWD Data Report

10/15/2025

APD ID: 10400105550 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD Surface Owner Description:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Other PWD Surface Owner Description:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Precipitated Solids Permit

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD Surface Owner Description:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD Surface Owner Description :

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

PWD Surface Owner Description:

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

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

Bond Info Data
10/15/2025

APD ID: 10400105550 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 8H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: NMB001188

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

C-102

Submit Electronically
Via OCD Permitting

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

Revised July 9, 2024

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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-57622	96217	WILLOW LAKE; BONE SPRING, SOUTHEAST

Property Code	Property Name	Well Number
338169	RIVERBEND 12-13 FEDERAL COM	8H

OGRID No.	Operator Name	Ground Level Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	2934.2'

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 (NAD 83)	Longitude (NAD 83)	County
N	1	25S	28E		1147 SOUTH	2362 WEST	32.155149°	-104.041828°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	Infill Wells	Riverbend 12-13 Fed Com 5H	No	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 (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
A	12	25S	28E		100 NORTH	338 EAST	32.151585°	-104.033372°	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	13	25S	28E		100 SOUTH	338 EAST	32.122953°	-104.033403°	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation:
N/A	☑ Horizontal ☐ Vertical	2934.2'

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.

Crystal Denson 11/5/2025

Signature Date

Crystal Denson

Printed Name

Crystal.Denson@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from the 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.

PAUL BUCHELE NEW MEXICO 23782 04-29-25 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

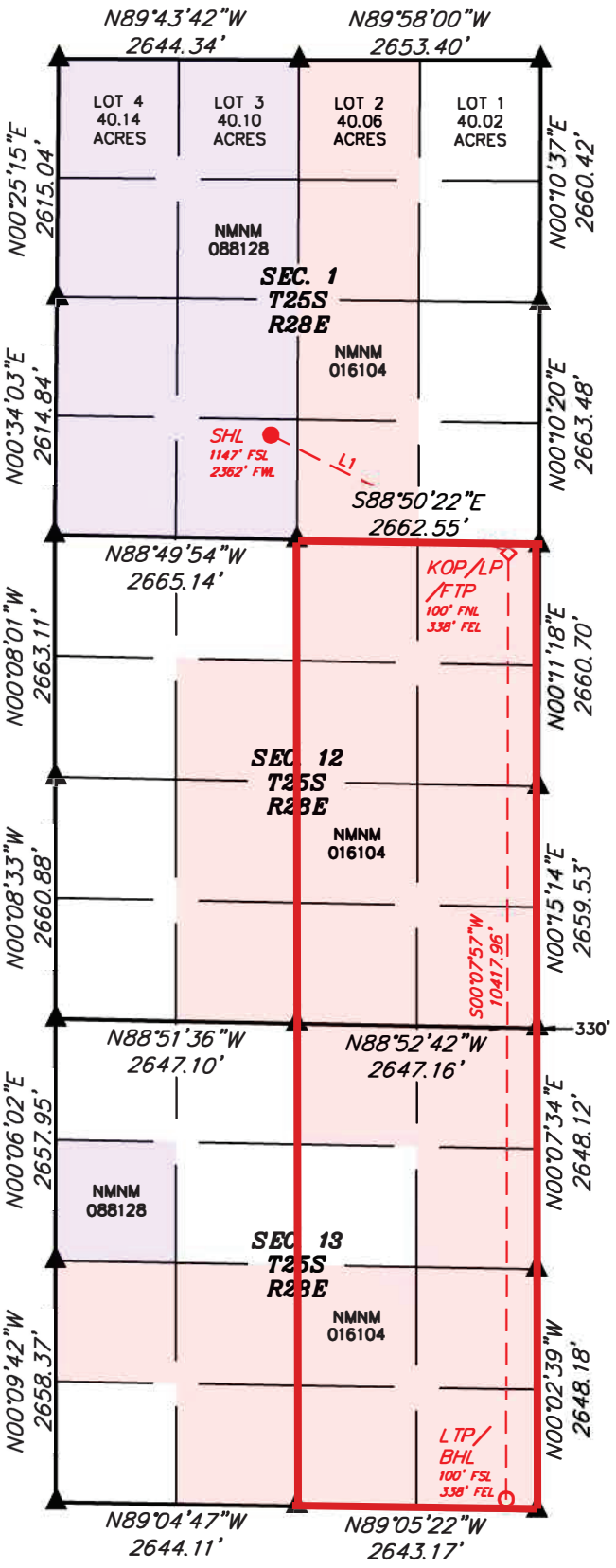
23782 August 12, 2024

Certificate Number Date of Survey

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

Property Name	Well Number	Drawn By	Revised By
RIVERBEND 12-13 FEDERAL COM	8H	L.T.T. 04-29-25	

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
⬠ = LEASE PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED



NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.54" (32.155149°)
LONGITUDE = -104°02'30.58" (-104.041828°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.09" (32.155026°)
LONGITUDE = -104°02'28.82" (-104.041339°)
STATE PLANE NAD 83 (N.M. EAST)
N: 420300.68' E: 631548.47'
STATE PLANE NAD 27 (N.M. EAST)
N: 420242.39' E: 590364.28'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°09'05.71" (32.151585°)
LONGITUDE = -104°02'00.14" (-104.033372°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°09'05.26" (32.151462°)
LONGITUDE = -104°01'58.38" (-104.032883°)
STATE PLANE NAD 83 (N.M. EAST)
N: 419011.34' E: 634168.93'
STATE PLANE NAD 27 (N.M. EAST)
N: 418953.04' E: 592984.65'

NAD 83 (LTP/BHL)
LATITUDE = 32°07'22.63" (32.122953°)
LONGITUDE = -104°02'00.25" (-104.033403°)
NAD 27 (LTP/BHL)
LATITUDE = 32°07'22.19" (32.122830°)
LONGITUDE = -104°01'58.49" (-104.032915°)
STATE PLANE NAD 83 (N.M. EAST)
N: 408595.64' E: 634188.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 408537.55' E: 593003.83'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S63°33'43"E	2921.11'

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
- Colored areas within section lines represent Federal oil & gas leases.

2000' 1000' 0' 1000'
SCALE

Sheet 2 of 2

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

ACKNOWLEDGMENTS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	OGRID: 162683
	Action Number: 526494
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☑	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.

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: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	OGRID: 162683
	Action Number: 526494
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
amydoebele2024	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/13/2025
amydoebele2024	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/13/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	1/8/2026
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	1/8/2026
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	1/8/2026
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	1/8/2026